"CAROL I" NATIONAL DEFENSE UNIVERSITY

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CONTEMPORARY CHALLENGES IN PROJECT AND PROGRAM MANAGEMENT

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BRAŞOV

ROMANIA

CONTEMPORARY CHALLENGES IN PROJECT

AND PROGRAM MANAGEMENT

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Mentoring Prison Leaders

National Administration of Penitentiaries

Subinspector of penitentiaries Livia-Luciana AGACHE

1. BUSINESS CASE

1.1. INTRODUCTION

It is the end of a difficult calendar year for most companies, but especially for the budgetary institutions. A year when incredibly tough decisions were made – new cuts of revenues and massive staff discounts. Record numbers of voluntary resignations were registered from the staff of the public order and national security, and other civil servants.

For most professionals, attention is now split between the wrap up of 2011 activities and the planning and budgeting for 2012.

What will 2012 bring? Depending on the economists you follow or media you consult, the timelines vary but most agree that we are in the midst of a slow climb up, out of recession. 2012 will continue to force hard choices. It is a time when talent retention and development couldn't be more important.

1.2. EXECUTIVE SUMMARY

Since 2004, the Romanian penitentiary system initiated an intense reform process. The process of institutional transformation of the penitentiary system, as part of the process of reform of the judiciary system, started by the demilitarization of the system and by restructuring the General Directorate of Penitentiaries from the Ministry of Justice.

Between 2004 and 2008 significant progress was recorded, in particular by amending legislation, initiating projects for computerization, modernization of the detention facilities and developing initial training and specialization programs for staff.

However, there have been noted some failures caused by interruptions in the adoption and implementation of decisions and policies initiated and by the lack of strategic planning of actions. Frequent changes in the management of the National Administration of Penitentiaries have had a negative impact on the pace of reform of the Romanian penitentiary system and have made it difficult to implement a strategy in this area.

To reset the reformation, in June 2008, was established an action plan for improving the penitentiary system. The document stated that one of the important measures in this regard is justification and implementation of a strategy of the penitentiary administration system.

Starting from the managerial team's vision on what the prison administration system should become by the year 2013, the strategic objectives have been identified, which, once achieved, make it possible to transform vision into reality.

According to this strategy, the National Administration of Penitentiaries aims to focus on the staff's needs, employees representing the most important resource when reformatting.[1]

In order to do this, one of the major objectives of the National Administration of Penitentiaries is to develop and implement of a program for identification and development of managerial skills of the employees to ensure continuity of management.

1.3. JUSTIFICATION

Many organizations are finding that the "traditional" methods of management training are either too costly and / or ineffective, as they often tend to deal with generic issues and are not "person or position" specific. Whilst these training methods are essential, they need to be integrated into a far more holistic "competency development" process, which combines skills, knowledge, behavior and direction.

What better way to ensure continuity of management than sharing valuable expertise and knowledge and bridge gap between different generations of leaders. Mentoring fits as a strategy that can achieve specific and directed outcomes. It fortifies a larger human capital strategy to retain, attract, develop, and maximize the productive capacity of the best and brightest in an organization. Mentoring increases knowledge sharing and cultural alignment. It improves relationships between different employee populations and the organization by enabling more structure, sanctioned, and continuous dialogue between and among employees. It increases employees' affinity and engagement through the open channels of communication.

Most organizations are not looking for a mentoring program, but instead are looking to develop a culture that values and demonstrates performance against stated objectives and that is transferable from current leaders to others. That is the essence of a mentoring initiative. Starting with key talent—mentoring is a critical leadership development opportunity that supports many other business imperatives.

1.4. ANTICIPATED OUTCOMES

The Mentoring Prison Leaders (MPL) is a Pilot Project, designed to develop the upcoming generation of jail leaders. An experienced leader, the mentor, has extensive expertise to pass on to those who are now moving up through the organizational ranks. In fact, there is no more lasting legacy that a leader can leave than bequeathing his/her knowledge, insights, and capabilities to those who will succeed him/her. This year-long MPL program is designed to enable the experienced leader to do exactly that.

As such, its goals are to:

- Link those who are committed to climbing the road toward career success (15 prison leaders with less than one year experience in their position) with established, well-qualified mentors who are committed to help them continue their growth and development.
- Create a supportive environment for novice prison leaders.
- Enhance both leadership abilities and managerial skills of mentees.
- Promote career commitment.
- Increase job satisfaction of experienced jail administrators as they apply their expertise to mentoring novice leaders.
- Provide "lessons learned" to serve other prison leaders.

1.5. PROJECT COMPONENTS

The **Project Manager** is the head of the Vocational Training Service of the National Administration of Penitentiaries.

The 15 **mentees** will be recruited from prison leaders with less than one year of experience in their position, as follows:

- prison directors;
- deputy directors of prison security and detention regime;
- deputy directors of education and psycho-social assistance;
- deputy directors of finance and administration.

[1] www.anp-just.ro , Penitentiary system strategy 2009-2013, page 11

The 15 **mentors** will be recruited from high experienced prison leaders who volunteer to be mentors, and fit the mentor profile.

Supervisors will be representatives with high expertise in mentees' fields of work from the National Administration of Penitentiaries.

All the project's activities will be carried out by the **Project Team,** composed of specialists from the National Administration of Penitentiaries, as follows:

- vocational training officers;
- IT specialists;
- finance and administration specialists;
- 1 public relations specialist.

All the project's activities will be approved, monitored and evaluated by the **Project Board**, composed of:

- National Administration of Penitentiaries' Director General;
- Director of Human Resources Management Department;
- Director of Prison Security and Detention Regime Department;
- Director of Social Reintegration Department;
- Director of Finance and Administration Department.

The MPL consists of seven program components:

1. Designing the suitable mentoring model for prison leaders with less than one year of experience in their position.
2. Establishing the mentoring network.
3. Providing professional development training for mentors in theories of adult education.
4. Creating a supportive environment, context and structure for the mentoring process.
5. Project outcome evaluation.
6. Providing "lessons learned" to serve other prison leaders.
7. Project completion.

1.6. ASSUMPTIONS

The following assumptions apply to the MPL. As project planning begins and more assumptions are identified, they will be added accordingly.

All the project's activities will be performed by personnel of the penitentiaries administration system, during their normal work time, so no additional costs with salaries will

be needed. Also, most of the tasks will be carried on using existing equipment and materials. As an exception, the mentor training courses will be conducted by outsource providers.

MPL is a pilot project. The mentoring model developed during this project is to be reevaluated and improved according to the feedback provided by the participants involved in it, for carrying on future mentoring programs.

1.7. CONSTRAINTS

Considering the great number of tasks of the employees, participation in the project could be received as an additional burden.

The measures for the achieving the strategic goals in terms of vocational training must remain within the limits of time and budget approved by Decision of the Romanian Government, for the implementation of the penitentiaries administration's strategy for 2010-2013.

2. SCOPE MANAGEMENT PLAN

2.1. INTRODUCTION

The Scope Management Plan provides the scope framework for this project. This plan documents the scope management approach: roles and responsibilities as they pertain to project scope, scope definition, verification and control measures, and the project's work breakdown structure.

The Mentoring Prison Leaders (MPL) is a Pilot Project, designed to develop the upcoming generation of jail leaders. An experienced leader, the mentor, has extensive expertise to pass on to those who are now moving up through the organizational ranks. In fact, there is no more lasting legacy that a leader can leave than bequeathing his/her knowledge, insights, and capabilities to those who will succeed him/her. This year-long MPL program is designed to enable the experienced leader to do exactly that.

2.2. GOALS

The MPL Project is designed to serve one major goal:

- Link those who are committed to climbing the road toward career success (15 prison leaders with less than one year experience in their position) with established, well-qualified mentors who are committed to help them continue their growth and development.
- Create a supportive environment for novice prison leaders.
- Enhance both leadership abilities and managerial skills of mentees.
- Promote career commitment.

- Increase job satisfaction of experienced jail administrators as they apply their expertise to mentoring novice leaders.
- Provide “lessons learned” to serve other prison leaders.

2.3. OBJECTIVES

The MPL Project follows six major objectives:

1. Design a suitable mentoring model for a group of 15 prison leaders with less than one year of experience in their position.
2. Establishing a mentoring network of mentors, mentees and supervisors.
3. Provide professional development training for mentors in theories of adult education.
4. Provide a supportive environment, context and structure for the mentoring process.
5. Provide “lessons learned” to serve other prison leaders.

2.4. WORK BREAKDOWN STRUCTURE

In order to effectively manage the work required to complete this project, it will be subdivided into individual work packages which will not exceed 40 hours of work per week. This will allow the Project Manager to more effectively manage the project’s scope as the project team works on the tasks necessary for project completion. The project is broken down into five phases, according to project’s main objectives, listed above. Each of these phases is then subdivided further down to work packages and schedule activities, as shown in chart no.

Chart 2.4.

ID	Task Name	Duration	Start	Finish	Predecessors
1	**1 Mentoring prison leaders**	**381 days**	**Mon 1/16/12**	**Mon 7/1/13**	
2	**1.1 Design the suitable mentoring model for prison leaders with less than one year of experience in their position**	**65 days**	**Mon 1/16/12**	**Fri 4/13/12**	
3	1.1.1 Post a message on the National Administration of Penitentiaries's intranet site advertising the project	1 day	Mon 1/16/12	Mon 1/16/12	
4	1.1.2 Organize kickoff meeting to establish mentees and supervisors groups	1 day	Mon 1/16/12	Mon 1/16/12	
5	1.1.3 Inform mentees and supervisors about selection to participate in the project	1 day	Mon 1/16/12	Mon 1/16/12	
6	1.1.4 Organize focus groups to gather input from supervision group and from the mentees to assess project design related issues	1 day	Tue 1/24/12	Tue 1/24/12	5FS+5 days
7	**1.1.5 Elaborate the mentoring model**	**35 days**	**Fri 1/27/12**	**Thu 3/15/12**	
8	1.1.5.1 Identifying mentoring content	10 days	Fri 1/27/12	Thu 2/9/12	6FS+2 days
9	1.1.5.2 Identifying mentoring strategies	10 days	Fri 1/27/12	Thu 2/9/12	6FS+2 days
10	1.1.5.3 Establish supervisor's roles and responsibilities	5 days	Fri 2/10/12	Thu 2/16/12	9,8
11	1.1.5.4 Establish mentee's roles and responsibilities	5 days	Fri 2/10/12	Thu 2/16/12	9,8
12	1.1.5.5 Establish mentor's roles and responsibilities	5 days	Fri 2/10/12	Thu 2/16/12	9,8
13	1.1.5.6 Establish mentor's profile	5 days	Fri 2/17/12	Thu 2/23/12	12,11,10
14	1.1.5.7 Elaborate a matching strategy	5 days	Fri 2/17/12	Thu 2/23/12	12,11,10
15	1.1.5.8 Develop a monitoring plan for the mentoring process	5 days	Fri 2/24/12	Thu 3/1/12	14,13
16	1.1.5.9 Develop an evaluation plan for the individual mentoring relationships	5 days	Fri 3/2/12	Thu 3/8/12	15
17	1.1.5.10 Submit mentoring model	0 days	Thu 3/8/12	Thu 3/8/12	16
18	1.1.5.11 Alalyse and aprove mentoring model	5 days	Fri 3/9/12	Thu 3/15/12	17
19	1.1.6 Elaborate support materials	21 days	Fri 3/16/12	Fri 4/13/12	
20	1.1.6.1 Develop Instruction Guide for Mentors and Mentees and Instruction Guide for Supervisors	15 days	Fri 3/16/12	Thu 4/5/12	18
21	1.1.6.2 Submit Instruction Guide for Mentors and Mentees and Instruction Guide for Supervisors	0 days	Thu 4/5/12	Thu 4/5/12	20
22	1.1.6.3 Alalyse and aprove Instruction Guide for Mentors and Mentees and Instruction Guide for Supervisors	5 days	Fri 4/6/12	Thu 4/12/12	21
23	1.1.6.4 Print Instruction Guide	1 day	Fri 4/13/12	Fri 4/13/12	22
24	1.2 Establish the mentoring network	28 days	Fri 3/16/12	Tue 4/24/12	
25	1.2.1 Recruit mentors	27 days	Fri 3/16/12	Mon 4/23/12	
26	1.2.1.1 Post application form and selection criterias on the National Administration of Penitentiaries' intranet site	1 day	Fri 3/16/12	Fri 3/16/12	18
27	1.2.1.2 Analyze received applications	3 days	Fri 4/13/12	Tue 4/17/12	26FS+15 days
28	1.2.1.3 Submit mentors group	0 days	Tue 4/17/12	Tue 4/17/12	27
29	1.2.1.4 Aprove mentors group	3 days	Wed 4/18/12	Fri 4/20/12	28
30	1.2.1.5 Inform mentors about selection to participate in the project	1 day	Mon 4/23/12	Mon 4/23/12	29
31	1.2.1.6 Post mentors list on the National Administration of Penitentiaries' intranet site	1 day	Wed 4/18/12	Wed 4/18/12	29
32	1.2.2 Match mentors with mentees in accordance with the matching plan	1 day	Wed 4/18/12	Wed 4/18/12	28
33	1.2.3 Assign the supervisors for the mentoring pairs	1 day	Thu 4/19/12	Thu 4/19/12	32
34	1.2.4 Submit mentoring network	0 days	Thu 4/19/12	Thu 4/19/12	33
35	1.2.5 Aprove mentoring network	3 days	Fri 4/20/12	Tue 4/24/12	34
36	1.3 Offer professional development training for mentors in theories of adult education	27 days	Fri 4/20/12	Mon 5/28/12	

ID	Task Name	Duration	Start	Finish	Predecessors
37	**1.3.1 Contract outsource mentoring course provider**	**14 days**	**Fri 4/20/12**	**Wed 5/9/12**	
38	1.3.1.1 Initiate list of acceptance criteria	1 day	Fri 4/20/12	Fri 4/20/12	33
39	1.3.1.2 Announce public auction	1 day	Mon 4/23/12	Mon 4/23/12	38
40	1.3.1.3 Organize opublic auction	11 days	Tue 4/24/12	Tue 5/8/12	39
41	1.3.1.4 Negotiate terms of contract with the tnderer	1 day	Wed 5/9/12	Wed 5/9/12	40
42	1.3.1.5 Sign off contract	0 days	Wed 5/9/12	Wed 5/9/12	41
43	1.3.2 Inform mentors about their participation on the mentor course	1 day	Thu 5/10/12	Thu 5/10/12	42
44	1.3.3 Organize mentor course	5 days	Mon 5/21/12	Fri 5/25/12	43FS+6 days
45	1.3.4 Advertize completion of mentor courses on the intranet platform	1 day	Mon 5/28/12	Mon 5/28/12	44
46	**1.4 Create a supportive environment, context and structure for mentoring prison leaders with less than one year of experience in their p**	**265 days**	**Mon 5/28/12**	**Fri 5/31/13**	
47	1.4.1 Inform about the need to participate at the team building sessions	1 day	Mon 5/28/12	Mon 5/28/12	23,30,31,44
48	1.4.2 Conduct Orientation Sessions	1 day	Fri 6/8/12	Fri 6/8/12	47FS+8 days
49	**1.4.3 Provide mentees with support from mentors**	**255 days**	**Mon 6/11/12**	**Fri 5/31/13**	
50	1.4.3.1 Use a distance communication channel between mentors and mentees in accordance with the mentoring strategies already est	255 days	Mon 6/11/12	Fri 5/31/13	48
51	**1.4.3.2 Organize mentor-mentee meetings**	**236 days**	**Mon 6/11/12**	**Mon 5/6/13**	48
52	1.4.3.2.1 Organize mentor-mentee meetings 1	1 day	Mon 6/11/12	Mon 6/11/12	
53	1.4.3.2.2 Organize mentor-mentee meetings 2	1 day	Mon 7/2/12	Mon 7/2/12	
54	1.4.3.2.3 Organize mentor-mentee meetings 3	1 day	Mon 8/6/12	Mon 8/6/12	
55	1.4.3.2.4 Organize mentor-mentee meetings 4	1 day	Mon 9/3/12	Mon 9/3/12	
56	1.4.3.2.5 Organize mentor-mentee meetings 5	1 day	Mon 10/1/12	Mon 10/1/12	
57	1.4.3.2.6 Organize mentor-mentee meetings 6	1 day	Mon 11/5/12	Mon 11/5/12	
58	1.4.3.2.7 Organize mentor-mentee meetings 7	1 day	Mon 12/3/12	Mon 12/3/12	
59	1.4.3.2.8 Organize mentor-mentee meetings 8	1 day	Mon 1/7/13	Mon 1/7/13	
60	1.4.3.2.9 Organize mentor-mentee meetings 9	1 day	Mon 2/4/13	Mon 2/4/13	
61	1.4.3.2.10 Organize mentor-mentee meetings 10	1 day	Mon 3/4/13	Mon 3/4/13	
62	1.4.3.2.11 Organize mentor-mentee meetings 11	1 day	Mon 4/1/13	Mon 4/1/13	
63	1.4.3.2.12 Organize mentor-mentee meetings 12	1 day	Mon 5/6/13	Mon 5/6/13	
64	**1.4.4 Monitor the mentoring process from supervisors**	**255 days**	**Mon 6/11/12**	**Fri 5/31/13**	
65	1.4.4.1 Use a distance communication channel between mentors and mentees in accordance with the mentoring strategies pre-establis	255 days	Mon 6/11/12	Fri 5/31/13	48
66	**1.4.5 Evaluate the mentoring process by supervisors**	**236 days**	**Mon 6/11/12**	**Mon 5/6/13**	
67	**1.4.5.1 Submit monthly reports about the mentoring activities to the supervisor**	**236 days**	**Mon 6/11/12**	**Mon 5/6/13**	48
80	**1.5 Share "lessons learned"**	**10 days**	**Mon 6/3/13**	**Fri 6/14/13**	
81	**1.5.1 Collect lessons from mentors and mentees**	**5 days**	**Mon 6/3/13**	**Fri 6/7/13**	
82	1.5.1.1 Analyze the situation	5 days	Mon 6/3/13	Fri 6/7/13	46
83	1.5.1.2 Submit the report to the mentoring supervisor	0 days	Fri 6/7/13	Fri 6/7/13	82
84	1.5.2 Validate lessons for correctness, redundancy, consistency and relevance	5 days	Mon 6/10/13	Fri 6/14/13	83

Chart 2.4.

ID	Task Name	Duration	Start	Finish	Predecessors
85	1.5.3 Post the lessons learned on the National Administration of Penitentiaries' internal electronic platform	0 days	Fri 6/14/13	Fri 6/14/13	84
86	**1.6 Close project**	**11 days**	**Mon 6/17/13**	**Mon 7/1/13**	
87	**1.6.1 Evaluate project outcome**	**4 days**	**Mon 6/17/13**	**Thu 6/20/13**	
88	1.6.1.1 Organize meeting with mentors, mentees, supervisors to obtain feed-back to the mentoring experience in accordance to the eva	1 day	Mon 6/17/13	Mon 6/17/13	85
89	1.6.1.2 Assess mentees' and mentors' needs satisfaction after the mentoring experience through questioners and discussions	3 days	Tue 6/18/13	Thu 6/20/13	88
90	1.6.1.3 Assess mentees' professional performance reported to their initial level	3 days	Tue 6/18/13	Thu 6/20/13	88
91	1.6.1.4 Submit final project evaluation report	0 days	Thu 6/20/13	Thu 6/20/13	90,89
92	1.6.1.5 Make propositions for changes in the mentoring strategy, support materials, etc. based on the evaluation output.	0 days	Thu 6/20/13	Thu 6/20/13	90,89
93	1.6.2 Advertise project's outcomes through media	7 days	Fri 6/21/13	Mon 7/1/13	92

3. TIME MANAGEMENT PLAN

The purpose of the Time Management Plan is to set the format and establish criteria for developing and controlling the project schedule.

In order to provide a basis for estimating, scheduling, executing, monitoring and controlling the project work such that the project objectives will be met, this has been divided into work packages and schedule activities.

In developing the Time Management Plan, certain constraints were considered, such as the limits of time approved by Decision of the Romanian Government, for the implementation of the penitentiaries administration's strategy for 2010-2013. As an assumption, the number of work hours per day for each staff member implied is considered to be 8.

The duration of the activities was estimated based on experts' judgment, guided by historical analogous information. In order to develop a realistic and achievable project schedule, in sequencing schedule activities, certain leads and lags have been included.

A list of activities and milestones and their sequence and dependencies, as well as what resources (persons, equipment, or materiel) and what quantities of each resource will be used to perform each project activity is provided by the Gantt Chart (chart no. 3.0.).

Any proposed changes to project schedule must be reviewed by the Project Manager and approved by the Project Board. Appropriate stakeholders will be notified of significant modifications as they occur.

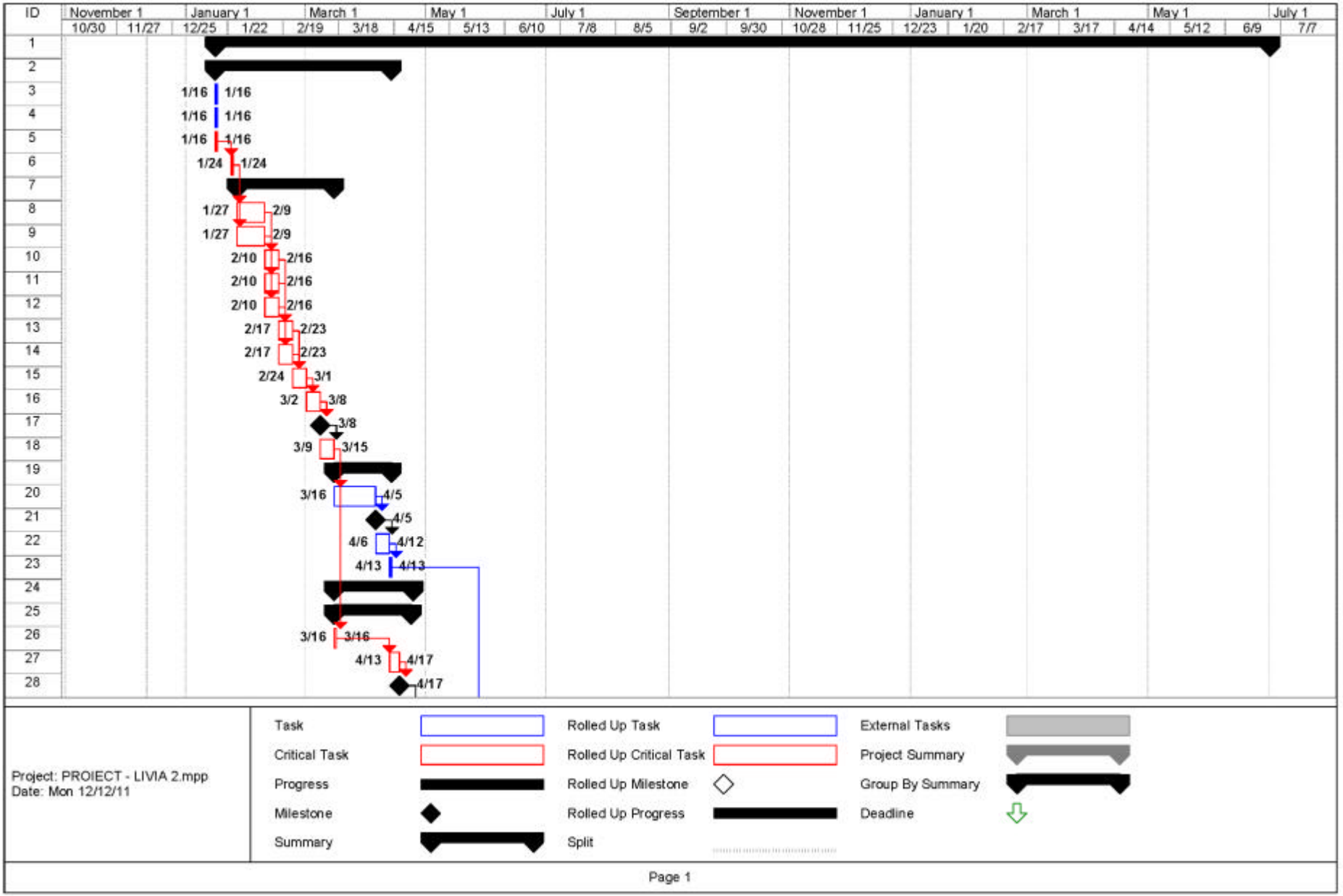
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Chart 3.0

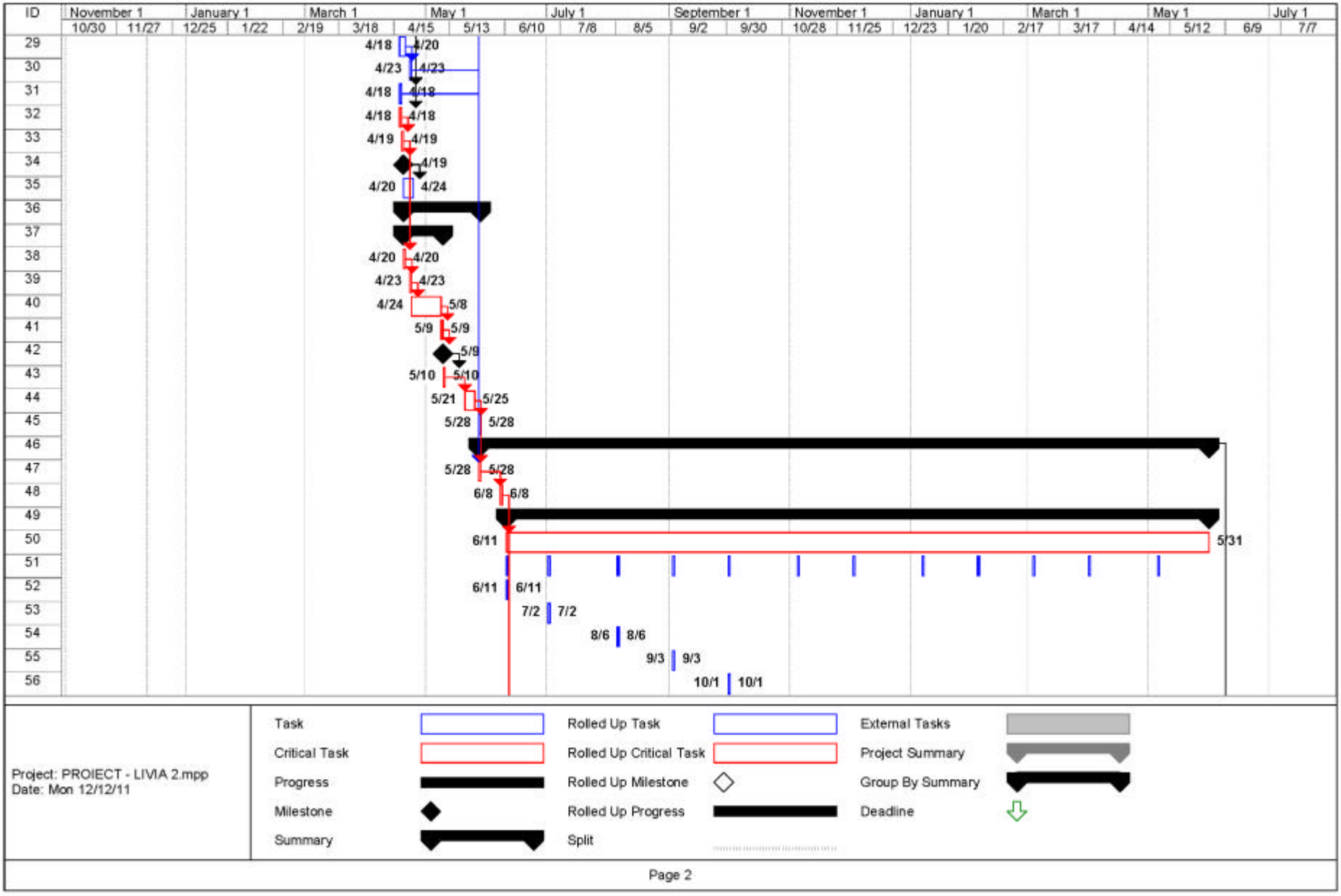
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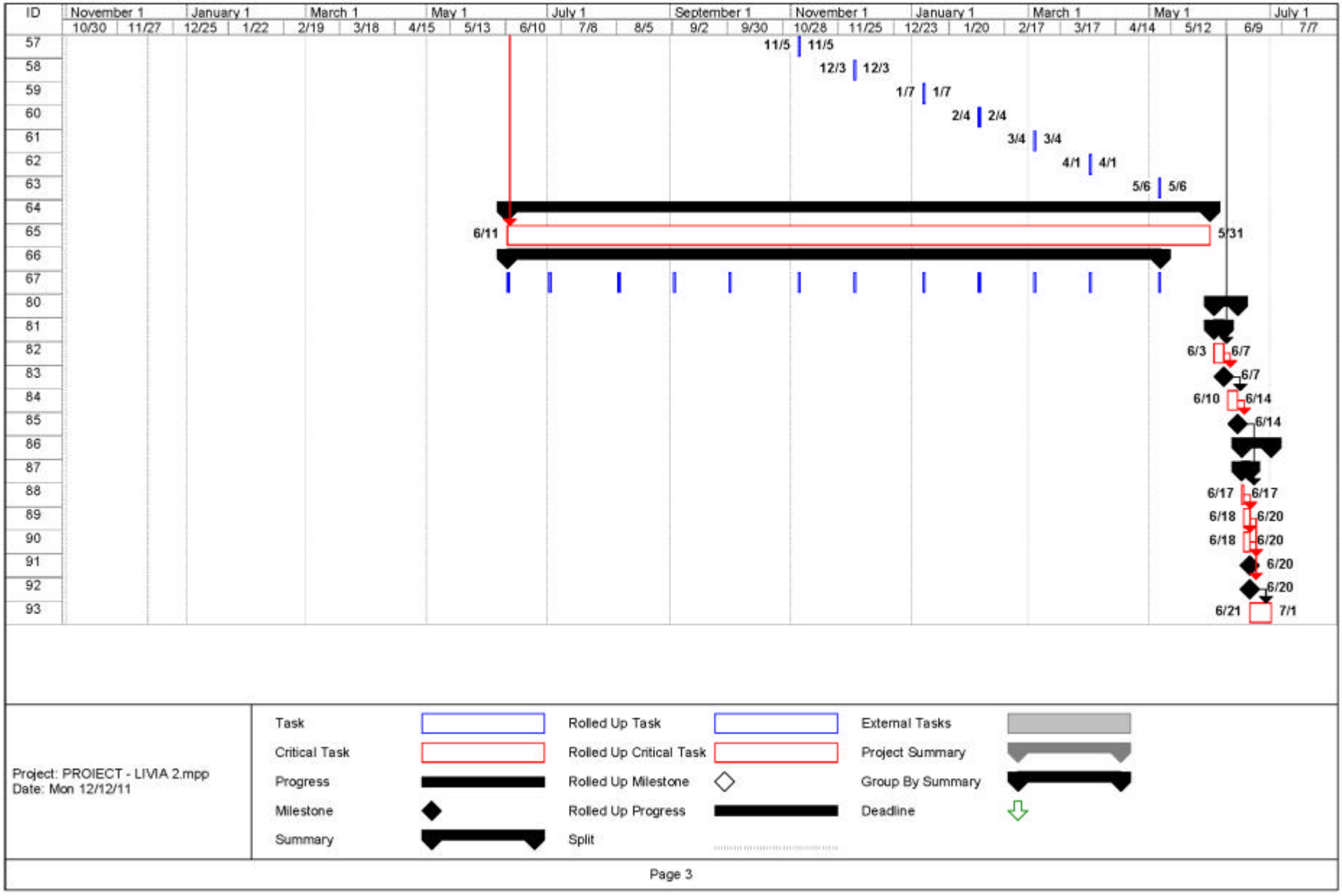
Chart 3.0.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4. HUMAN RESOURCE MANAGEMENT

4.1. INTRODUCTION

The **Project Manager** is the head of the Vocational Training Service of the National Administration of Penitentiaries.

The 15 **mentees** will be recruited from prison leaders with less than one year of experience in their position, as follows:

- prison directors;
- deputy directors of prison security and detention regime;
- deputy directors of education and psycho-social assistance;
- deputy directors of finance and administration.

The 15 **mentors** will be recruited from high experienced prison leaders who volunteer to be mentors, and fit the mentor profile.

Supervisors will be representatives with high expertise in mentees' fields of work from the National Administration of Penitentiaries.

All the project's activities will be carried out by the **Project Team,** composed of specialists from the National Administration of Penitentiaries, as follows:

- 4 vocational training officers;
- 1 IT specialist;
- 1 finance and administration specialist;
- 1 public relations specialist..

All the project's activities will be approved, monitored and evaluated by the **Project Board**, composed of:

- National Administration of Penitentiaries' Director General;
- Director of Human Resources Management Department;
- Director of Prison Security and Detention Regime Department;
- Director of Social Reintegration Department;
- Director of Finance and Administration Department.

4.2. LINEAR RESPONSIBILITY CHART

The roles and responsibilities for the MPL Project are essential to project success. All human resources implied must clearly understand their roles and responsibilities in order to successfully perform their portion of the project. As such, for the main activities the following roles and responsibilities have been established (Table 4.2.):

Activity	GD	DEA	DSR	DSDPR	DHRM	PM	VTS	ITS	FAS	PRS	S	MTR	MTE
Advertising the project	6					2		7		1			
Organize kickoff meeting to establish mentees and supervisors groups	5	5	5	5	5	1	5						
Organize focus groups to gather input from supervision group and from the mentees to assess project design related issues	6	3				1	7				5		5
Elaborate the mentoring model	6	3	3	3	3	1	7				4	4	4
Elaborate support materials	6	3	3	3	3	1	7				4	4	4
Establish the mentoring network	6	3	3	3	3	1	7				4	4	4
Organize mentor course	6	1				2	3					5	
Conduct Orientation Sessions	6	3				1	7				5	5	5
Provide mentees with support from mentors						2						1	
Monitor the mentoring process						2					1		
Evaluate the mentoring process						2					1		
Share “lessons learned”	6	3	3	3	3	1		7			3	7	7
Organize meeting with mentors, mentees, supervisors to obtain feed-back to the mentoring experience	6	3				1	7				5	5	5
Submit final project evaluation report and propositions for future changes	6	3	3	3	3	1	7						
Advertise project's outcomes through media	6					2				1			

Table 4.2.

Legend:

1 – actual responsibility;
2 – general supervision;
3 – must be consulted;
4 – may be consulted;
5 – participant;
6 – approval authority;
7 – performer/participant

DG – Director General
DEA - Director of Economics and Administration Directorate
DHRM – Director Of Human Resources Management Directorate
DSDPR - Director of Security of Detention Penitentiary Regime Directorate
DSR - Director of Social Reintegration Directorate
PM – Project Manager
VTS - Vocational Training Specialists
ITS – IT Specialist
FAS – Finance and Administration Specialist
PRS – Public Relations Specialist
S – Supervisors
MTR – Mentors
MTE – Mentees

5. COMUNICATIONS MANAGEMENT

This Communications Management Plan sets the communications framework for this project. It will serve as a guide for communications throughout the life of the project and will be updated as communication needs change.

The Project Manager will take a proactive role in ensuring effective communications on this project. The communications requirements are documented in the Communications Matrix presented in this document (Table 5.0.). The Communications Matrix will be used as the guide for what information to communicate, who is to do the communicating, when to communicate it and to whom to communicate.

STAKEHOLDERS' COMMUNICATION MATRIX

Project stage	Person to convey the message	Target audience	When the message is to be conveyed	Communication type/Channel	Deliverables	Message content
Execution Stage	Project manager	- Project team - Project Board	Mon 1/16/12	Kickoff Meeting	- Agenda - Meeting Minutes	Introduce the project team and the project. Review project objectives and management approach. Establish the mentees and supervisors group.
Executing Stage	IT Specialist	All stakeholders	Mon 1/16/12	Intranet platform	Post on the Intranet platform	- Project introduction - Project context and benefits - Stakeholders - Project overview
Executing stage	Vocational Training Specialist	Mentees	Mon 1/16/12	Mail/e-mail	Official letter	Inform about selection to participate in the project.
Executing stage	Project manager	Project Board	Thu 3/8/12	Secretariat	Official note	Present Mentoring model
Executing stage	Vocational Training Specialist	Mentors	Wed 4/18/12	Mail/e-mail	Official letter	Inform about selection to participate in the project.
Executing stage	Vocational Training Specialist	Key Stakeholders (Project Board, Mentors, Mentees, Supervisors)	Thu 4/19/12, Fri 4/20/12	Secretariat Mail/e-mail	Official letter	Present Mentoring network

Project stage	Person to convey the message	Target audience	When the message is to be conveyed	Communication type/Channel	Deliverables	Message content
Executing stage	Vocational Training Specialist	Project Board	Thu 4/5/12	Secretariat	Official note	Present support materials for approval
Executing stage	IT Specialist	Mentors, Mentees, Supervisors	Fri 4/13/12	Intranet platform	Post on the Intranet platform	Present support materials
Executing stage	Vocational Training Specialist	Mentors	Thu 5/10/12	Mail/e-mail	Official letter	Inform about the need to participate at the mentor course
Executing stage	IT Specialist	Key Stakeholders (Project Board, Mentors, Mentees, Supervisors)	Mon 5/28/12	Intranet platform	- Post on the Intranet platform - News letter	Advertize completion of mentor courses on the intranet platform
Executing stage	Vocational Training Specialist	Mentors, Mentees	Mon 5/28/12	Mail/e-mail	Official letter	Inform about the organization of orientation sessions

Table 5.0.

6. Project cost Management

The purpose of the Cost Management Plan is to set the format and establish criteria for developing and controlling the project budget.

In order to provide a basis for estimating, scheduling, executing, monitoring and controlling the project budget, such that the project objectives will be met, the project work has been divided into work packages and schedule activities (Chart 2.4.). The resources needed and the costs for each and every one of them were estimated based on experts' judgment, guided by historical analogous information and commercial databases. In order to come up with a realistic project budget, in estimating project costs, overhead costs and some contingency reserves were taken into account.

In developing the Cost Management Plan, certain constraints were considered, such as the limits of budget approved by Decision of the Romanian Government, for the implementation of the penitentiaries administration's strategy for 2010-2013. The cost estimations made were also based on the assumption that no additional labor and equipment will be used specifically on the project, then those already existing and being paid for.

A list of the all the resources implied and the costs of those which still need to be purchased and their distribution for the activities scheduled, is provided below (Table 6.1., Table 6.2, Chart 6.3).

Any proposed changes to project costs must be reviewed by the Project Manager and approved by the Project Board. Appropriate stakeholders will be notified of significant modifications as they occur.

Table 6.1. – Resource pool

Resource type	Name	Number
Skilled resources/human resources	Director General	1
	Director of Security of detention and prison regime Department	1
	Director of Social reintegration Department	1
	Director of Economics and Administrative Department	1
	Director of Human Resources Management Directorate	1
	Project manager	1
	Vocational training specialists	4
	Economics and Administrative specialists	1
	Information Technology and Communications specialists	1
	Public Relations and Mass-Media Specialists	1
	Supervisors	3
	Mentors	15
	Mentees	15
Equipment	Telephone	46
	Computers	46
	Printer	1
	Printer Cartridges	1
	Video projector	1
	Flip chart	1
	Meeting/training room	1
Materials	Paper tops	15
	Flip chart paper	10
Services	Training course for mentors	15
	Transportation	540
	Accommodation	330
	Internet services	
	Telephone services	

Table 6.1.

Table 6.2. – Project Cost Estimate

Above the line items	**Direct (variable costs)**	**Direct labour**	The wages and salaries of people employed on the project **Cost: 0 lei.**
		Direct materials	Equipment, materials and bought out services used specifically on the project. **Cost: 432.5 lei.**
		Direct expenses	Travel, accommodation and other costs chargeable specifically to the project. **Cost: 112,650 lei.**
	Indirect (fixed) costs	**Overhead costs**	A portion of the costs of running the business such as general management and accommodation, calculated as a proportion of total direct costs (10% of total direct costs). **Cost: 11,308.25 lei**
Below the line items		**Contingency sum**	An addition, calculated as a small percentage of the above the line costs, in an attempt to compensate for estimating errors and omissions, unfunded project changes and other unexpected costs – (5% of the direct and indirect costs). **Cost: 5,654.12 lei**

<u>TOTAL COST</u>: 130,044.87 lei

Charter 6.2. – COST BREAKDOWN

ID	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
1	**1 Mentoring prison leaders**	**381 days**	**Mon 1/16/12**	**Mon 7/1/13**	**0%**	**113,082.50 Lei**	**7,185.2 hrs**
2	**1.1 Design the suitable mentoring model for prison leaders with less than one year of experience in their position**	**65 days**	**Mon 1/16/12**	**Fri 4/13/12**	**0%**	**6,122.50 Lei**	**1,546.4 hrs**
3	1.1.1 Post a message on the National Administration of Penitentiaries's intranet site advertising the project	1 day	Mon 1/16/12	Mon 1/16/12	0%	0.00 Lei	0.8 hrs
4	1.1.2 Organize kickoff meeting to establish mentees and supervisors groups	1 day	Mon 1/16/12	Mon 1/16/12	0%	0.00 Lei	24 hrs
5	1.1.3 Inform mentees and supervisors about selection to participate in the project	1 day	Mon 1/16/12	Mon 1/16/12	0%	0.00 Lei	0.8 hrs
6	1.1.4 Organize focus groups to gather input from supervision group and from the mentees to assess project design related issues	1 day	Tue 1/24/12	Tue 1/24/12	0%	5,702.50 Lei	32 hrs
7	**1.1.5 Elaborate the mentoring model**	**35 days**	**Fri 1/27/12**	**Thu 3/15/12**	**0%**	**0.00 Lei**	**984 hrs**
8	1.1.5.1 Identifying mentoring content	10 days	Fri 1/27/12	Thu 2/9/12	0%	0.00 Lei	160 hrs
9	1.1.5.2 Identifying mentoring strategies	10 days	Fri 1/27/12	Thu 2/9/12	0%	0.00 Lei	160 hrs
10	1.1.5.3 Establish supervisor's roles and responsibilities	5 days	Fri 2/10/12	Thu 2/16/12	0%	0.00 Lei	80 hrs
11	1.1.5.4 Establish mentee's roles and responsibilities	5 days	Fri 2/10/12	Thu 2/16/12	0%	0.00 Lei	40 hrs
12	1.1.5.5 Establish mentor's roles and responsibilities	5 days	Fri 2/10/12	Thu 2/16/12	0%	0.00 Lei	40 hrs
13	1.1.5.6 Establish mentor's profile	5 days	Fri 2/17/12	Thu 2/23/12	0%	0.00 Lei	80 hrs
14	1.1.5.7 Elaborate a matching strategy	5 days	Fri 2/17/12	Thu 2/23/12	0%	0.00 Lei	80 hrs
15	1.1.5.8 Develop a mentoring plan for the mentoring process	5 days	Fri 2/24/12	Thu 3/1/12	0%	0.00 Lei	160 hrs
16	1.1.5.9 Develop an evaluation plan for the individual mentoring relationships	5 days	Fri 3/2/12	Thu 3/8/12	0%	0.00 Lei	160 hrs
17	1.1.5.10 Submit mentoring model	0 days	Thu 3/8/12	Thu 3/8/12	0%	0.00 Lei	0 hrs
18	1.1.5.11 Analyse and aprove mentoring model	5 days	Fri 3/9/12	Thu 3/15/12	0%	0.00 Lei	24 hrs
19	1.1.6 Elaborate support materials	21 days	Fri 3/16/12	Fri 4/13/12	0%	420.00 Lei	504.8 hrs
20	1.1.6.1 Develop Instruction Guide for Mentors and Mentees and Instruction Guide for Supervisors	15 days	Fri 3/16/12	Thu 4/5/12	0%	0.00 Lei	480 hrs
21	1.1.6.2 Submit Instruction Guide for Mentors and Mentees and Instruction Guide for Supervisors	0 days	Thu 4/5/12	Thu 4/5/12	0%	0.00 Lei	0 hrs
22	1.1.6.3 Analyse and aprove Instruction Guide for Mentors and Mentees and Instruction Guide for Supervisors	5 days	Fri 4/6/12	Thu 4/12/12	0%	0.00 Lei	24 hrs
23	1.1.6.4 Print Instruction Guide	1 day	Fri 4/13/12	Fri 4/13/12	0%	420.00 Lei	0.8 hrs
24	1.2 Establish the mentoring network	28 days	Fri 3/16/12	Tue 4/24/12	0%	0.00 Lei	1144 hrs
25	1.2.1 Recruit mentors	27 days	Fri 3/16/12	Mon 4/23/12	0%	0.00 Lei	864 hrs
26	1.2.1.1 Post application form and selection criteria on the National Administration of Penitentiaries' intranet site	1 day	Fri 3/16/12	Fri 3/16/12	0%	0.00 Lei	0.8 hrs
27	1.2.1.2 Analyze received applications	3 days	Fri 4/13/12	Tue 4/17/12	0%	0.00 Lei	72 hrs
28	1.2.1.3 Submit mentors group	0 days	Tue 4/17/12	Tue 4/17/12	0%	0.00 Lei	0 hrs
29	1.2.1.4 Aprove mentors group	3 days	Wed 4/18/12	Fri 4/20/12	0%	0.00 Lei	12 hrs
30	1.2.1.5 Inform mentors about selection to participate in the project	1 day	Mon 4/23/12	Mon 4/23/12	0%	0.00 Lei	0.8 hrs
31	1.2.1.6 Post mentors list on the National Administration of Penitentiaries' intranet site	1 day	Wed 4/18/12	Wed 4/18/12	0%	0.00 Lei	0.8 hrs
32	1.2.2 Match mentors with mentees in accordance with the matching plan	1 day	Wed 4/18/12	Wed 4/18/12	0%	0.00 Lei	8 hrs
33	1.2.3 Assign the supervisors for the mentoring pairs	1 day	Thu 4/19/12	Thu 4/19/12	0%	0.00 Lei	8 hrs
34	1.2.4 Submit mentoring network	0 days	Thu 4/19/12	Thu 4/19/12	0%	0.00 Lei	0 hrs
35	1.2.5 Aprove mentoring network	3 days	Fri 4/20/12	Tue 4/24/12	0%	0.00 Lei	12 hrs
36	1.3 Offer professional development training for mentors in theories of adult education	27 days	Fri 4/20/12	Mon 5/28/12	0%	15,750.00 Lei	623.6 hrs
37	1.3.1 Contract outsource mentoring course provider	14 days	Fri 4/20/12	Wed 5/9/12	0%	0.00 Lei	22 hrs
38	1.3.1.1 Initiate list of acceptance criteria	1 day	Fri 4/20/12	Fri 4/20/12	0%	0.00 Lei	8 hrs
39	1.3.1.2 Announce public auction	1 day	Mon 4/23/12	Mon 4/23/12	0%	0.00 Lei	1.6 hrs
40	1.3.1.3 Organize public auction	11 days	Tue 4/24/12	Tue 5/8/12	0%	0.00 Lei	4.4 hrs
41	1.3.1.4 Negotiate terms of contract with the trainer	1 day	Wed 5/9/12	Wed 5/9/12	0%	0.00 Lei	8 hrs
42	1.3.1.5 Sign off contract	0 days	Wed 5/9/12	Wed 5/9/12	0%	0.00 Lei	0 hrs
43	1.3.2 Inform mentors about their participation on the mentor course	1 day	Thu 5/10/12	Thu 5/10/12	0%	0.00 Lei	0.8 hrs
44	1.3.3 Organize mentor course	5 days	Mon 5/21/12	Fri 5/25/12	0%	15,750.00 Lei	600 hrs

ID	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
45	1.3.4 Advertize completion of mentor courses on the intranet platform	1 day	Mon 5/28/12	Mon 5/28/12	0%	0.00 Lei	0.8 hrs
46	**1.4 Create a supportive environment, context and structure for mentoring prison leaders with less than one year of experience in their p**	**265 days**	**Mon 5/28/12**	**Fri 5/31/13**	**0%**	**79,810.00 Lei**	**3,256.8 hrs**
47	1.4.1 Inform about the need to participate at the team building sessions	1 day	Mon 5/28/12	Mon 5/28/12	0%	0.00 Lei	0.8 hrs
48	1.4.2 Conduct Orientation Sessions	1 day	Fri 6/8/12	Fri 6/8/12	0%	11,410.00 Lei	256.8 hrs
49	**1.4.3 Provide mentees with support from mentors**	**255 days**	**Mon 6/11/12**	**Fri 5/31/13**	**0%**	**68,400.00 Lei**	**2,572 hrs**
50	1.4.3.1 Use a distance communication channel between mentors and mentees in accordance with the mentoring strategies already est	255 days	Mon 6/11/12	Fri 5/31/13	0%	0.00 Lei	612 hrs
51	**1.4.3.2 Organize mentor-mentee meetings**	**236 days**	**Mon 6/11/12**	**Mon 5/6/13**	**0%**	**68,400.00 Lei**	**1,960 hrs**
52	1.4.3.2.1 Organize mentor-mentee meetings 1	1 day	Mon 6/11/12	Mon 6/11/12	0%	5,700.00 Lei	160 hrs
53	1.4.3.2.2 Organize mentor-mentee meetings 2	1 day	Mon 7/2/12	Mon 7/2/12	0%	5,700.00 Lei	160 hrs
54	1.4.3.2.3 Organize mentor-mentee meetings 3	1 day	Mon 8/6/12	Mon 8/6/12	0%	5,700.00 Lei	188 hrs
55	1.4.3.2.4 Organize mentor-mentee meetings 4	1 day	Mon 9/3/12	Mon 9/3/12	0%	5,700.00 Lei	188 hrs
56	1.4.3.2.5 Organize mentor-mentee meetings 5	1 day	Mon 10/1/12	Mon 10/1/12	0%	5,700.00 Lei	188 hrs
57	1.4.3.2.6 Organize mentor-mentee meetings 6	1 day	Mon 11/5/12	Mon 11/5/12	0%	5,700.00 Lei	88 hrs
58	1.4.3.2.7 Organize mentor-mentee meetings 7	1 day	Mon 12/3/12	Mon 12/3/12	0%	5,700.00 Lei	160 hrs
59	1.4.3.2.8 Organize mentor-mentee meetings 8	1 day	Mon 1/7/13	Mon 1/7/13	0%	5,700.00 Lei	160 hrs
60	1.4.3.2.9 Organize mentor-mentee meetings 9	1 day	Mon 2/4/13	Mon 2/4/13	0%	5,700.00 Lei	160 hrs
61	1.4.3.2.10 Organize mentor-mentee meetings 10	1 day	Mon 3/4/13	Mon 3/4/13	0%	5,700.00 Lei	160 hrs
62	1.4.3.2.11 Organize mentor-mentee meetings 11	1 day	Mon 4/1/13	Mon 4/1/13	0%	5,700.00 Lei	160 hrs
63	1.4.3.2.12 Organize mentor-mentee meetings 12	1 day	Mon 5/6/13	Mon 5/6/13	0%	5,700.00 Lei	160 hrs
64	1.4.4 Monitor the mentoring process from supervisors	255 days	Mon 6/11/12	Fri 5/31/13	0%	0.00 Lei	408 hrs
65	1.4.4.1 Use a distance communication channel between mentors and mentees in accordance with the mentoring strategies pre-establi	255 days	Mon 6/11/12	Fri 5/31/13	0%	0.00 Lei	408 hrs
66	1.4.5 Evaluate the mentoring process by supervisors	236 days	Mon 6/11/12	Mon 5/6/13	0%	0.00 Lei	16.2 hrs
67	1.4.5.1 Submit monthly reports about the mentoring activities to the supervisor	236 days	Mon 6/11/12	Mon 5/6/13	0%	0.00 Lei	16.2 hrs
68	1.5 Share "lessons learned"	19 days	Mon 6/3/13	Fri 6/14/13	0%	0.00 Lei	1,200 hrs
69	1.5.1 Collect lessons from mentors and mentees	5 days	Mon 6/3/13	Fri 6/7/13	0%	0.00 Lei	1,200 hrs
70	1.5.1.1 Analyze the situation	5 days	Mon 6/3/13	Fri 6/7/13	0%	0.00 Lei	1,200 hrs
71	1.5.1.2 Submit the report to the mentoring supervisor	0 days	Fri 6/7/13	Fri 6/7/13	0%	0.00 Lei	0 hrs
72	1.5.2 Validate lessons for correctness, redundancy, consistency and relevance	5 days	Mon 6/10/13	Fri 6/14/13	0%	0.00 Lei	0 hrs
73	1.5.3 Post the lessons learned on the National Administration of Penitentiaries' internal electronic platform	0 days	Fri 6/14/13	Fri 6/14/13	0%	0.00 Lei	0 hrs
74	1.6 Close project	11 days	Mon 5/17/13	Mon 5/31/13	0%	11,400.00 Lei	444 hrs
75	1.6.1 Evaluate project outcome	4 days	Mon 5/17/13	Thu 5/20/13	0%	11,400.00 Lei	444 hrs
76	1.6.1.1 Organize meeting with mentors, mentees, supervisors to obtain feed-back to the mentoring experience in accordance to the eva	1 day	Mon 5/17/13	Mon 5/17/13	0%	11,400.00 Lei	324 hrs
77	1.6.1.2 Assess mentees' and mentors' needs satisfaction after the mentoring experience through questioners and discussions	3 days	Tue 5/18/13	Thu 5/20/13	0%	0.00 Lei	60 hrs
78	1.6.1.3 Assess mentees' professional performance reported to their initial level	3 days	Tue 5/18/13	Thu 5/20/13	0%	0.00 Lei	60 hrs
79	1.6.1.4 Submit final project evaluation report	0 days	Thu 5/20/13	Thu 5/20/13	0%	0.00 Lei	0 hrs
80	1.6.1.5 Make propositions for changes in the mentoring strategy, support materials, etc. based on the evaluation output.	0 days	Thu 5/20/13	Thu 5/20/13	0%	0.00 Lei	0 hrs
81	1.6.2 Advertise project's outcomes through media	7 days	Fri 5/24/13	Mon 7/1/13	0%	0.00 Lei	0 hrs

7. PROJECT QUALITY MANAGEMENT

7.1. PURPOSE OF THE QUALITY MANAGEMENT PLAN

This Quality Management Plan (QMP) describes the Quality Management Process that the project team follow to assure and control the quality of all procedures, processes and deliverables produced during the course of the Mentoring Project.

The scope of this plan includes the quality practices and procedures to be employed by the project team and other suppliers, in the development of all components of the Mentoring Project.

7.2. PROJECT QUALITY DEFINITION

The success of the Mentoring Project is dependent upon the delivery of a quality supportive environment for prison leaders with less than one year of experience in their position, in order to improve performance and optimize their managerial skills. The objective of this section of the Quality Management Plan is to define the exact meaning of quality within the context of the Mentoring Project.

The mentoring process implies the following:

- focuses on provoking thinking and consequently the personal and professional growth of the mentee;
- Mentor is a facilitator, sounding board and helps mentees discover their own direction;
- Mentor provides advice, shares knowledge and experiences, and helps with a self-discovery approach;
- Mentor engages mentees in meaningful discussions by asking questions to surface thinking and leading the mentee to find their own solutions;

The mentoring process does not imply:

- Mentors providing mentees with solutions to their problems.

7.3. KEY QUALITY CONCEPTS MEASUREMENT

1. Efficiency

The mentoring strategy is designed to provide long term benefits with a minimum of resource consumption. It meets the real needs of the mentees regarding their activity by developing their potential, expanding their leadership abilities and increasing their management skills and bring them up to the system's requirements. The project also helps mentors enhance experience in their areas of expertise and obtain a fresh perspective of a subject.

2. Adaptability

The Project is based on a strategy that is tailored on each person's needs and expectations.

3. Accessibility

The project allows mentees to benefit from their mentor's support whenever and wherever they may find themselves, through handy communication tools.

4. Reliability

The Mentoring Project continuously offers mentees qualified expertise and support from their mentors throughout 1 year.

5. Portability

The mentoring strategy developed by the project can be used in future projects, at any organizational level.

7.4. DELIVERABLES AND ACCEPTANCE CRITERIA

The following table provides the deliverables of the project and their acceptance criteria:

Deliverable	Acceptance criteria
Mentee group	15 Prison Directors, Deputy Directors for Detention Security and Prison Regime, Deputy Directors for Education and Psycho-social assistance, Deputy Directors for Logistics and Finances with less than 1 year of experience in their position.
Supervisor's profile	Established by the Project Board.
Supervisor group	Specialists with high expertise from the National Administration of Penitentiaries.
Mentoring Model	Developed by vocational training specialists, according to the mentees' needs and system's requirements, as they result from assessing the input provided by focus groups, and approved by the Project Board.
Mentor group	Staff with high expertise that fits the mentor profile.
Mentor-mentee team	Set up according to the matching strategy.
Handbooks	Developed by vocational training specialists, according to the mentees' needs and system's requirements, as they result from assessing the input provided by focus groups, and approved by the Project Board.
Training course for mentors	CNFPA accredited course.
Team building sessions	Conducted by outsource accredited specialists.
Support from supervisor	According to supervisor's roles and responsibilities set up by the Mentoring Model.
Support from mentors	According to mentor's roles and responsibilities set up by the Mentoring Model.
Mentoring activity reports	According to the monitoring plan set up by the Mentoring Model.
Mentoring process evaluation reports	According to evaluation plan for the individual mentoring relationships, set up by the Mentoring Model.
Lessons learned	correct, consistent and relevant

Table 7.4.

7.5. QUALITY PLANNING AND CONTROL

The following table provides the indicators of the activities which are divided as quality planning activities and quality control activities, and the responsible person for each activity.

7.5.1. Quality planning activities:

Activity	Description	Responsible person
Set quality criteria	Set acceptance criteria for the deliverables	
Staffing	Identification and assignment, or recruitment, of qualified staff (mentors and supervisors) for sustaining the mentoring process.	Project Board, Project Manager
Training	Mentoring courses for mentors to in order to achieve abilities required to complete their tasks.	Out-source mentoring course provider
Team building	Team building sessions for mentors and mentees in order to facilitate development of trust-based mentoring relationships	Out-source team building specialist
Environment	Create a supportive environment, context and structure by elaborating a mentoring model that fits every mentee's needs and expectations and system's requirements.	Vocational training specialists

Table 7.5.1.

7.5.2. Quality control activities:

Activity	Description	Responsible person
In-Process Audits	Audits of deliverables to ensure completeness and consistency of deliverables, according to the acceptance criteria.	Project Board
Monitoring	Continuous monitoring of all activities planned; recommend action for improvement; monitor the corrective actions.	Project Manager, Supervisors – for the individual mentoring relationships
Communication	Continuous communication to all team members of any needed information.	All stakeholders, according to the Communication Plan
Status Reporting	Periodical activity reports and project status reports	All stakeholders according to the Communication Plan

Table 7.5.2.

8. PROJECT RISK MANAGEMENT

8.1. INTRODUCTION

The objectives of the Risk Management Plan are to increase the probability and impact of positive events, and decrease the probability and impact of events adverse to the project.

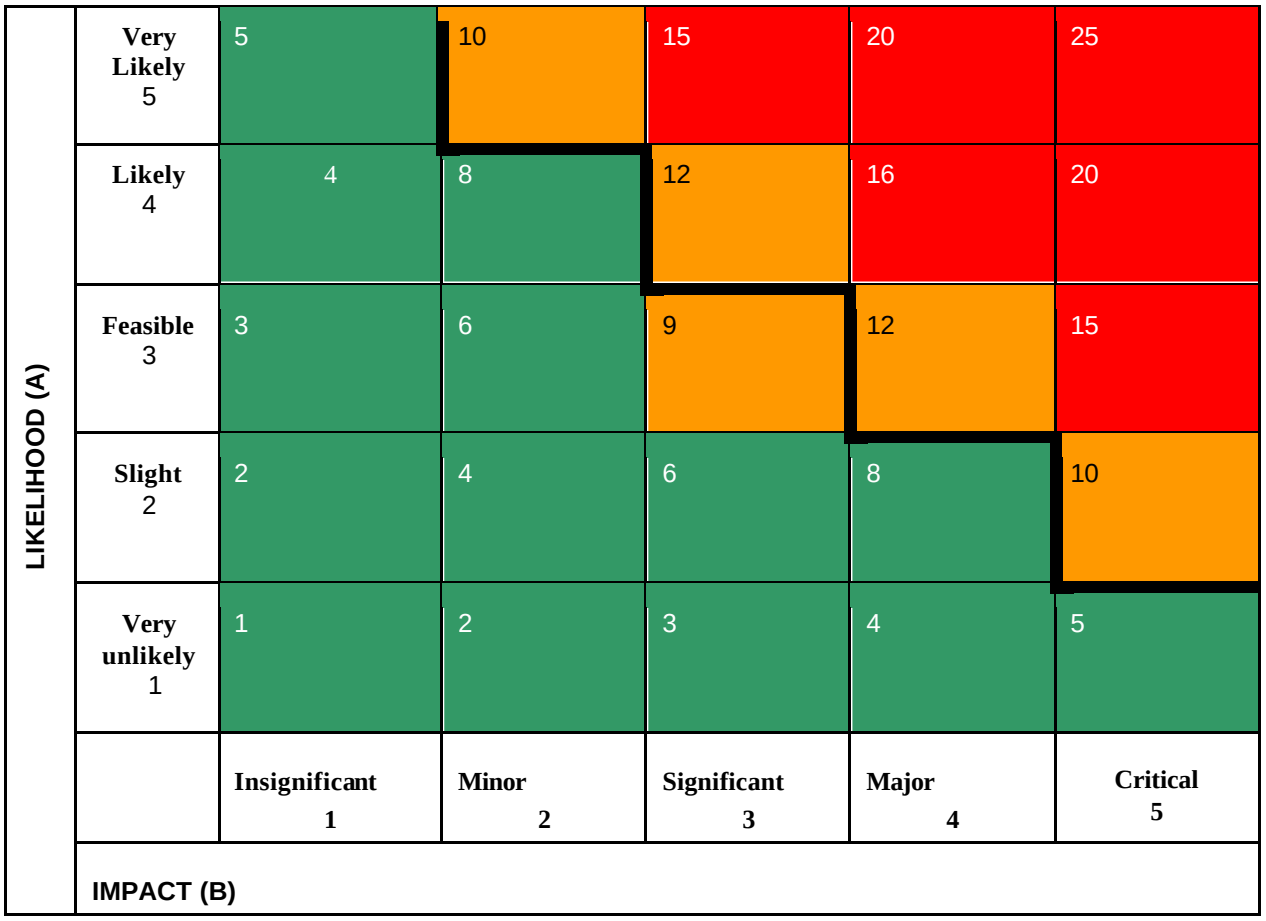
The main risks to the project were identified by the project team using brainstorming, checklist analysis based on historical information and knowledge that has been accumulated from previous similar projects and from other sources of information and assumptions analysis.

Below is presented the list and ranking of the risks identified as well as the avoidance/mitigating strategies for these risks.

8.2. LIST OF RISKS:

1. Unsuitable mentoring model.
2. Disorganized mentoring process
3. Unskilled mentors
4. Lack of staff implication
5. Project dropouts
6. Mismatches
7. Unsatisfied mentees
8. Inaccuracy of project cost estimation
9. Tasks over allocation

8.2. RISKS ASSESSMENT MATRIX



Green = Low risk, Amber 9 = Medium risk, Amber 10 –12 high risk, Red = High risk

Likelihood of Occurrence (A)	Severity of Impact (B)
1- Very unlikely (hasn't occurred before)	1 - Insignificant (have no effect)
2 - Slight (rarely occurs)	2 - Minor (little effect)
3 - Feasible (possible, but not	3 - Significant (may pose a problem)
4 - Likely (has before, will again)	4 - Major (Will pose a problem)
5 - Very Likely (occurs frequently)	5 - Critical (Immediate action required)

8.3. STRATEGIES FOR TACKLING MAJOR RISKS

	Risk	Risk likelihood	Risk impact	Risk rate	Risk management strategies
1.	Unsuitable mentoring model.	3	5	15	Obtain input from mentees, mentors, supervisors and Project Board when developing the mentoring model.
2.	Disorganized mentoring process	3	4	12	Develop an operational plan: mentoring content, mentoring monitoring plan, mentoring evaluation plan, mentoring handbooks.
3.	Unskilled mentors	3	5	15	- Create a comprehensive recruiting plan, and allocate adequate resources for implementation. - Brainstorm with vocational training specialists, and other specialists in mentees' field of work to develop a rigorous and well-defined mentor profile, that will bring in the highest qualified mentors. - Train mentors in theories of adult education.
4.	Unsatisfied mentees	3	5	15	- Monitor the mentoring process and take periodic satisfaction surveys and conduct interviews with mentees to assure that the project addressed their needs.
5.	Lack of staff implication	2	5	10	- Advertize the MPL Project through the intranet platform. - Offer mentors incentives and recognition: proposal for salary of honor or for "exceptional" qualifier.
6.	Project dropouts	2	5	10	- Provide mentors and mentees with orientation and continuous support. - Sign the Mentoring Agreement
7.	Mismatches	3	3	9	Develop a matching strategy based of input form mentors and mentees (career interests, age, geographical location, potential chemistry, etc.)
8.	Inaccuracy of project cost estimation	4	4	16	Add a cost contingency reserve to the estimated project costs.
8.	Tasks over allocation	4	4	16	Add time contingency reserves or lags.

Table 8.3

IMPROVING THE BUDGET EXECUTION PROCESS

Lt. Monica BANGALE

1. BUSINESS CASE

1.1 Executive summary

Budget execution is the process by which the financial resources made available to an institution are directed and controlled toward achieving the purposes and the objectives of the institution.

A budget execution process should ensure compliance with budgetary regulations and should have adequate monitoring and reporting capabilities to be able to provide accurate analysis of budget execution.

Because of the growing demand for a balanced budget and considering the current legal frame dynamics, new budget realities began to impact institution's financial future.

Following a detailed analysis of current situation, in the financial department was identified several issues:

- Delays of financial reports;
- Weak reporting;
- Cumbersome procedures;
- Occurrence of a high numbers of data errors;
- Lack of staff motivation;
- Lack of coordination and communication;
- Lack of accountability in decision making.

In this context, the management of the Financial Department has initiated a project on improving budget execution process.

The purpose of this project is to increase performance and ensure the progress of budget execution process within the Financial Department.

By improving budget execution process will be ensured the increase of the efficiency and quality of financial reports, promoting accountability and best practices, increase capacity for budget management and promoting a high level of professionalism.

1.2 Alternatives

Various options and alternatives were analyzed to determine the best way for improving budget execution process.

This Project was selected for proposal, because it is suitably aligned with current institution strategy.

The following alternative options have been considered to address the identified issues. These alternatives were not selected for a number of reasons which are also explained below.

Alternative Option	Reasons For Not Selecting Alternative
a. Outsource the implementation of an integrated financial system	• Significantly higher cost • Vendor's lack of familiarity with our internal requirements
b. Develop an integrated software internally	• Lack of qualified resources • Significant cost associated with software design • Timeframe required is too long

Table no. 1 – Alternative Options

1.3 Project Assumptions

The following assumptions apply to the project. As project planning begins and more assumptions are identified, they will be added accordingly.

- This project has the full support of Financial Manager;
- The Financial Department is able to provide the experts to be involved in this project;
- All department heads will provide necessary support for successful project completion;
- Require additional schedule for project team;
- The project is funded by institution budget;
- For this project will be allocated internal resources (specialists, equipment);

- The estimated duration of this project is 6 months, starting from January 2012.

1.4 Project Constraints

The following constraints apply to the project. As project planning begins and more constraints are identified, they will be added accordingly.

- There are limited resources available to support the project;
- It would not be possible to release the project team from regular duties to work full-time on the project;
- Staff fluctuation during the life of the project;
- Change of legal frame regarding budget execution and accounting system.

2. SCOPE MANAGEMENT PLAN

2.1 Goal

The project goal is focused on increasing performance and efficiency in order to improve budget execution process.

2.2 Objectives

The main objectives are:

1. Increasing the efficiency and quality of financial reports in the Financial Department by improving work process, improving control and promoting responsibility, over a period of 3 months;
2. Integrating budgeting and accounting systems into a common framework – it will be accomplished in 15 days;
3. Promoting a high level of professionalism by increasing the possibilities for staff specialization;
4. Setting up performance indicators and procedures to enable improved budget execution process, over a period of 15 days.

To achieve the mentioned objectives, project team will have to implement a several activities:

- Analyze the current situation in the Financial Department in order to identify, asses and manage issues occurred during budget execution;
- Establish a list of main activities, deadlines, roles and responsibilities for each activity;
- Develop working procedures within each department;
- Implement levels and types of control;
- Implement risk management;
- Elaborate procedures for job rotation across activities;
- Establish a flow chart of documents between departments involved in the budget execution process;

- Linking accounting and budget data into a common framework in order to enable users to access and to extract the information they require to carry out different tasks;
- Organize in-source training programs;
- Sett up a system of direct instruction and practical guidance;
- Organize meetings in order to debate and clarify issues arising in the current activity;
- Determine key performance indicators;
- Elaborate staff evaluation procedures;
- Develop a system for motivating and rewarding staff performance.

The project will be completed when all objectives mentioned in the scope have been achieved.

The project will be accepted upon final sign off by the Project Sponsor.

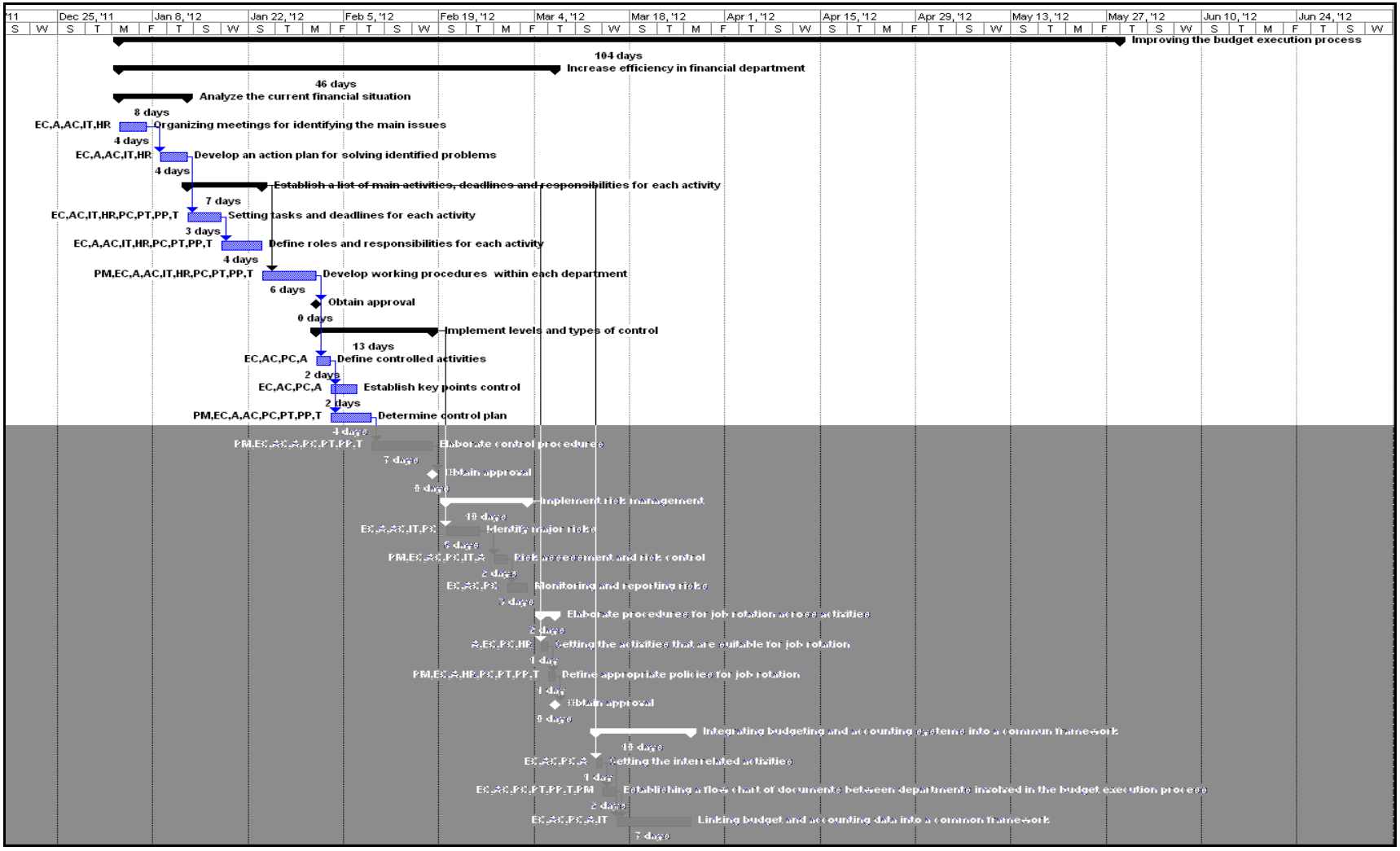
2.3 Work Breakdown Structure (WBS)

The WBS containing the activities and their description is found in table below:

Task Name	Duration	Start	Finish
1 Improving the budget execution process	**104 days**	**Tue 1/3/12**	**Mon 5/28/12**
1.1 Increase efficiency in financial department	**46 days**	**Tue 1/3/12**	**Tue 3/6/12**
1.1.1 Analyze the current financial situation	**8 days**	**Tue 1/3/12**	**Thu 1/12/12**
1.1.1.1 Organizing meetings for identifying the main issues	4 days	Tue 1/3/12	Fri 1/6/12
1.1.1.2 Develop an action plan for solving identified problems	4 days	Mon 1/9/12	Thu 1/12/12
1.1.2 Establish a list of main activities, deadlines and responsibilities for each activity	**7 days**	**Fri 1/13/12**	**Mon 1/23/12**
1.1.2.1 Setting tasks and deadlines for each activity	3 days	Fri 1/13/12	Tue 1/17/12
1.1.2.2 Define roles and responsibilities for each activity	4 days	Wed 1/18/12	Mon 1/23/12
1.1.3 Develop working procedures within each department	6 days	Tue 1/24/12	Tue 1/31/12
1.1.4 Obtain approval	0 days	Tue 1/31/12	Tue 1/31/12
1.1.5 Implement levels and types of control	**13 days**	**Wed 2/1/12**	**Fri 2/17/12**
1.1.5.1 Define controlled activities	2 days	Wed 2/1/12	Thu 2/2/12
1.1.5.2 Establish key points control	2 days	Fri 2/3/12	Mon 2/6/12
1.1.5.3 Determine control plan	4 days	Fri 2/3/12	Wed 2/8/12
1.1.5.4 Elaborate control procedures	7 days	Thu 2/9/12	Fri 2/17/12
1.1.5.5 Obtain approval	0 days	Fri 2/17/12	Fri 2/17/12
1.1.6 Implement risk management	**10 days**	**Mon 2/20/12**	**Fri 3/2/12**
1.1.6.1 Identify major risks	5 days	Mon 2/20/12	Fri 2/24/12
1.1.6.2 Risk assessment and risk control	2 days	Mon 2/27/12	Tue 2/28/12
1.1.6.3 Monitoring and reporting risks	3 days	Wed 2/29/12	Fri 3/2/12
1.1.7 Elaborate procedures for job rotation across activities	**2 days**	**Mon 3/5/12**	**Tue 3/6/12**
1.1.7.1 Setting the activities that are suitable for job rotation	1 day	Mon 3/5/12	Mon 3/5/12
1.1.7.2 Define appropriate policies for job rotation	1 day	Tue 3/6/12	Tue 3/6/12
1.1.7.3 Obtain approval	0 days	Tue 3/6/12	Tue 3/6/12
1.2 Integrating budgeting and accounting systems into a commun framework	**10 days**	**Tue 3/13/12**	**Mon 3/26/12**
1.2.1 Setting the interrelated activities	1 day	Tue 3/13/12	Tue 3/13/12
1.2.2 Establishing a flow chart of documents between departments involved in the budget execution process	2 days	Wed 3/14/12	Thu 3/15/12
1.2.3 Linking budget and accounting data into a common framework	7 days	Fri 3/16/12	Mon 3/26/12
1.3 Increasing the possibilities for staff specialization	**35 days**	**Mon 3/19/12**	**Mon 5/7/12**
1.3.1 Organize in-source training programs	15 days	Mon 3/19/12	Fri 4/6/12
1.3.2 Sett up a practical guidance	15 days	Mon 4/9/12	Fri 4/27/12
1.3.3 Organizing meetings in order to debate and clarify issues arising in the current activity	5 days	Mon 4/30/12	Mon 5/7/12
1.4 Setting up performance indicators and procedures	**15 days**	**Tue 5/8/12**	**Mon 5/28/12**
1.4.1 Review the current evaluation system	2 days	Tue 5/8/12	Wed 5/9/12
1.4.2 Determine key performance indicators	3 days	Thu 5/10/12	Mon 5/14/12
1.4.3 Elaborate staff evaluation procedures	8 days	Tue 5/15/12	Thu 5/24/12
1.4.4 Develop a system for motivating and rewarding staff performance	2 days	Fri 5/25/12	Mon 5/28/12

Table no. 2 Work Breakdown Structure

3. TIME MANAGEMENT PLAN



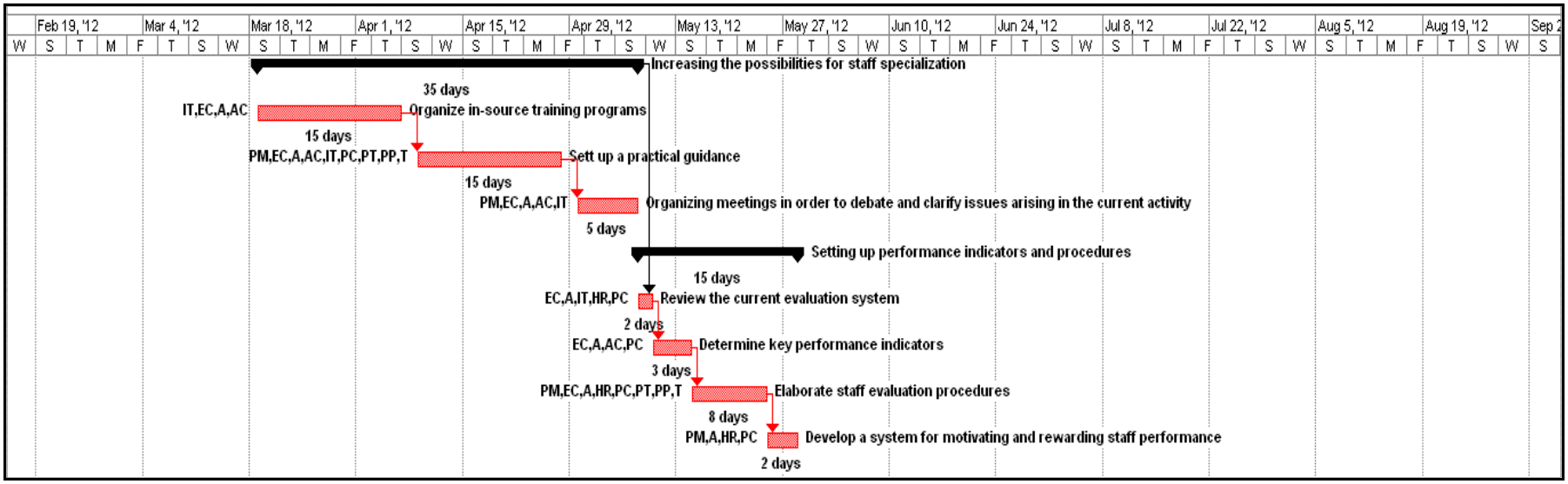


Table no. 3 Gantt chart

Legend

Project Manager	-	PM
Public Finance Economist	-	EC
Business Analyst	-	A
Qualified Accountant	-	AC
IT expert	-	IT
HR specialist	-	HR
Laptops	-	PC
Printers	-	PT
Paper quire (500 sheets)	-	PP
Toner	-	T

4. HUMAN RESOURCE MANAGEMENT

The Project Manager and team members will all play key roles in managing the scope of this project in order to ensure that work performed on the project is within the established scope throughout the entire duration of the project.

The table below defines the roles and responsibilities for this project.

Activity	General Manager	Project Manager	Budget Manager	Methodology and Internal Control Manager	Accounting Manager	HR Manager	IT Manager
Analyze the current situation	2	1	7	7	7	7	7
Establish a list of activities, deadlines and responsibilities	6	2	7	7	7	5	7
Develop working procedures	6	2	1 and 7	1 and 7	1 and 7	1, 7 and 5	1,7
Implement control	6	2	1	1	1	5	1
Implement risk management	6	2	7	7	7	7	7
Elaborate procedures for job rotation across activities	6	2	3	3	3	3 and 5	3
Setting the interrelated activities	2	1	7	7	7		3
Establishing a flow chart of documents	6	2	7	7	7		
Linking accounting and budget data	2	1	7	7	7		3

Organize in-source training programs	6	2	3	3	3	1, 3 and 5	3
Sett up a practical guidance	6	2	1	1	1	5	1
Organize meetings in order to debate and clarify issues arising in current activity	6	1 and 2	7	7	7	5	7
Review the current evaluation system	2	1	7	7	7	7	7
Determine key performance indicators	2	1	7	7	7	7	7
Elaborate staff evaluation procedures	6	2	3	3	3	3 and 5	3
Develop a system for motivating and rewarding staff performance	6	1	7	7	7	7	7

Table no. 4 - Linear Responsibility Chart

Legend: 1-actual responsibility
2-general supervision
3- must be consulted
4- may be consulted
5- must be notified
6- approval authority
7- needs to perform

5. COMMUNICATIONS MANAGEMENT

Project Sponsor is responsible for the funding of the project and is ultimately responsible for its success.

The Project Manager has overall responsibility for the execution of the project. The Project Manager manages day to day resources, provides project guidance and monitors and reports.

The Project Team is comprised of all head departments who have a role performing work on the project.

Target Audience	Person(s) to convey the message	When the message is conveyed	Format of a message	Message content
Project Manager Project Team	Project Sponsor	Once-January	Meeting	Initiate the project, discuss and develop an action plan
Project Team	Project Manager	Once-January	Meeting	Review project objectives and management approach
Project Manager	Project Team	Daily	E-mail	Summary of project status
Project Sponsor	Project Manager	Weekly	Presentation	Report on the status of the project
Project Manager	Project Team	Weekly	Agenda	Report on the status of the project
Project Sponsor	Project Manager	Monthly	Presentation	Report outlining the progress and issues
Project Sponsor	Project Manager	As needed	Meeting	Review and approve changes
Project Sponsor	Project Manager	As needed	Meeting	Report on the status of the project

Table no. 5 - Communications Matrix

6. PROJECT COST MANAGEMENT

The material and equipment resources required for the project are in the inventory of Financial Department.

The project team members will be paid with their monthly salary, according to the number of hours actually worked.

Funding is available for training programs.

A breakdown of the project financial costs and resource pool is listed in the table below.

Resource type	Name	Quantity	Days of work	Hours/day % of usage	Cost per hour/ product	Total cost (lei)
Human resource	Project Manager - PM	1	130	4	21	10,920
	Public Finance Economist - EC	2	130	4	12	12,480
	Business Analyst A	2	130	4	12	12,480
	Qualified Accountant -AC	2	130	4	12	12,480
	IT expert - IT	2	130	4	15	15,600
	HR specialist - HR	1	130	4	12	6,240
Materials/ Equipments	Laptop - PC	10		50%	2,500	12,500
	Printer - PT	1		35%	1,500	525
	Paper - pp	6		15		90
	Toner - T	2		200		400
Overall costs	10% of the estimated cost					8,372
TOTAL						**92,087**

Table no. 6 - Resource pool and costs analysis

7. PROJECT QUALITY MANAGEMENT

Quality indicators are used to assess if the processes of an institution are running according to objectives.

Efficiency in the Financial Department will be measured by the improvement of work process, improvement of control, by increasing standardization and coordination of activities, by increasing the possibilities for staff specialization and better utilization of competencies, by increasing quality of the financial reports.

Performance involves promoting a high level of professionalism, promoting responsibility, fairness and best practice in terms of work performed and improving human resource management.

Key concepts	Quality Factor	Activity	Acceptance criteria
Efficiency	Action plan	A1.1.2	90% of the issues were identified
	Activities plan	A1.2.2	Ensure that personnel understand their own roles and responsibilities
	Set of working procedures	A1.3	Ensure a guideline to support workflow process
	Set of control procedures	A1.4.3	- Ensure compliance with financial discipline and regulations - Available levels and types of control.
	Risk register	A1.5.3	75% of the risks were identified
	Integrated budgeting and accounting systems	A2	- Common processes for similar transactions - System design that eliminates unnecessary duplication of data entry
	Staff specialization	A3	- Selection of training programs in strict relation to training needs - Documentation updated accordingly - Video conferencing systems for debates

Performance	Key performance indicators	A4.2	- Indicator measuring the achievement of the objectives - Employees performing activities conducted
	Procedures of staff evaluation	A4.3	- Existence of a set of quantitative and qualitative criteria based on which staff will be evaluated - Potential opportunities to promote

Table no. 7 - Quality Plan

8. PROJECT RISK MANAGEMENT

The project team has to identify and analyze possible risks that may appear during the life cycle of the project.

The following table provides the information regarding to the identified risks, their ranking and the correspondent approach strategy for the "out of tolerance" risks.

Possible Risks	Likelihood of Occurrence	Impact	Rating (Likelihood x Impact)	Action required	Risk Manager
Project team fluctuation during the life of the project	4	4	16	Establish a reserve team	Project Manager
Lack of qualified human resources	3	3	9	Verify if the members of the project team fulfills the criteria of experience	Project Manager
Lack of communication	4	3	12	Establish a form for regular communication	Project Manager
Delays due to approvals	4	4	16	- Establish deadlines for regular reports - Reduce the handoffs within a process	Project Manager

Lack of involvement in the project	3	3	9	Establish a reward system	Project Manager
Change of legislative frame	4	3	12	Carrying out discussions about legislative changes that occurred	Project Manager
Added workload because of new tasks	4	4	16	prioritize the activities according to their importance for the project and decide which of them can de cancelled or delayed	Project Manager
Project team members conflict	3	2	6	establish roles and responsibilities for each member	Project Manager

Table no. 8 - Risk Assessment Matrix

Legend

Likelihood of Occurrence (A)	Severity of Impact (B)
1- Very unlikely (hasn't occurred before)	1 - Insignificant (have no effect)
2 - Slight (rarely occurs)	2 - Minor (little effect)
3 - Feasible (possible, but not common)	3 - Significant (may pose a problem)
4 - Likely (has before, will again)	4 - Major (Will pose a problem)
5 - Very Likely (occurs frequently)	5 - Critical (Immediate action required)

ORGANIZING THE PLENARY MEETING OF THE NORTH ATLANTIC TREATY ORGANIZATION (NATO) CIVILIAN INTELLIGENCE COMMITTEE (CIC)

MAJ Valentin DAMINESCU

I. BUSINESS CASE

According to the CIC Set of Principles, such Plenary Meetings are organized twice a year, by rotation, in the NATO member states. As representative of Romania in CIC, SRI will organize the Plenary Meeting in the second half of 2012.

The organization of the CIC Plenary Meeting under the best circumstances, especially from the security point of view, will significantly contribute to the image of SRI among the foreign partners and at the level of the NATO structures.

The assigned Project Manager (PM): MAJ Valentin DAMINESCU, Head of Section, International Cooperation Department

The decision making authority: Director General, Deputy Director General, and International Cooperation Director

Start date of the project: 2 July 2012

End date of the project: 3 October 2012

Budget: 143,000 RON

There is the possibility to increase the budget depending on the needs that might come up while carrying out the project.

Number of participants in the Plenary Meeting: 60 foreign participants, and 5 SRI participants

Main venue: The Parliament Palace in Bucharest

Resources:

SRI has the capability to provide with all the needed resources in-house.

Pre-requisites:

The organization of the Plenary Meeting falls under the responsibility of a Working Group (WG) that is to start its activity on 2 July 2012.

The WG is chaired by the PM and comprises the directors of the following Departments: IT&C, Logistics, Antiterrorism (AT), and Secretariat, as well as the head of Protocol.

The WG meets twice a month to analyze the progress of the project and to establish the next measures to be taken.

The communication with the foreign participant institutions will be done through the International Cooperation Department.

Constraints:

- security risks (extremist manifestations, terrorist threats);
- lack of a certain resource at the required date;
- not getting in due time the needed organizational data from the foreign delegations (members, travel coordinates etc.).

II. SCOPE MANAGEMENT PLAN

II.1. Goal

To organize under the best circumstances the NATO / CIC Plenary Meeting during 1-3 October 2012, as stated by the Committee's Set of Principles

II.2. Objectives

The objectives to be aimed for reaching the stated goal are the following:

1.1 SRI will provide the security for the Plenary Meeting and for all the 65 participants during the event (1-3 October 2012);

1.2 SRI will manage the Plenary Meeting in accordance with the detailed program to be drawn up and agreed by 3 September 2012;

1.3 SRI will promote the success of the Plenary Meeting at the end of the event (3 October 2012), thus enhancing the Service image as reliable partner among the foreign counterparts and at the NATO level.

II.3. Work Breakdown Structure (WBS)

Please find below the tree structure of the activities that are to be carried out during the Project:

1.1 Provide the security for the Plenary Meeting and for all the 65 foreign participants during the event (1-3 October 2012)

1.1.1 Interrogate the partner services attending the meeting for information on possible threats against the security of the event and the attendees

1.1.1.1 Send an information request to the partners

1.1.1.2 Collect and analyze the information received

1.1.2 Provide the AT protection of the participants and the venues of the Plenary Meeting

1.1.2.1 Brief the AT Director on the information received from partners and the activities included in the program

1.1.2.2 Identify the necessary AT protection measures

1.1.2.2.1 Assign an AT close protection team for the movements from one venue to another

1.1.2.2.2 Assign an AT close protection team at the hotel where the foreign participants will be accommodated

1.1.2.2.3 Carry out an anti-bomb check at the hotel

1.2 Manage the Plenary Meeting in accordance with the detailed program to be drawn up and agreed by 3 September 2012

1.2.1 Draw up the program for the Plenary Meeting

1.2.1.1 Draw up a draft program

1.2.1.2 Submit the draft program to the attention of the participant Services and ask for organizational details from them (delegation, travel coordinates, special requirements or needs)

1.2.1.3 Centralize all the organizational data from the participants

1.2.1.4 Draw up the final program

1.2.2 Organize the arrival of the delegates

1.2.2.1 Book the protocol lounge and catering services at the "Henri Coanda" International Airport

1.2.2.2 Establish the number and type of cars for the transportation of the participants from the airport to the hotel

1.2.2.3 Provide the necessary means of transportation

1.2.3 Organize the accommodation of the participants and the welcoming cocktail

1.2.3.1 Brief the Head of Protocol on the requirements

1.2.3.2 Identify a 4* / 5* hotel in Bucharest meeting the requirements

1.2.3.3 Book the needed rooms

1.2.3.4 Book the lounge for the cocktail

1.2.3.5 Decide on the menu for the cocktail

1.2.4 Organize the activities at the Parliament Palace

1.2.4.1 Rent the conference hall for the official works

1.2.4.1.1 Brief the Head of Protocol on the requirements

1.2.4.1.2 Identify an appropriate conference hall

1.2.4.2 Provide the necessary IT&C equipment for the works

1.2.4.2.1 Brief the IT&C Director on the requirements

1.2.4.2.2 Decide on the necessary equipment

1.2.4.2.3 Provide and install the equipment

1.2.4.3 Arrange the official table

1.2.4.3.1 Brief the Head of Protocol on the requirements

1.2.4.3.2 Prepare the name tags

1.2.4.3.2.1 Provide a template and the needed personal data

1.2.4.3.2.2 Print the name tags

1.2.4.3.3 Provide the flags of the participant nations

1.2.4.3.4 Provide the catering

1.2.4.4 Provide the transportation of the participants from the hotel to the main venue and back

1.2.4.4.1 Brief the Logistics Director on the requirements

1.2.4.4.2 Provide the bus

1.2.4.5 Set up a Secretariat at the venue of the works

1.2.4.5.1 Brief the Secretariat Director and the IT&C Director on the requirements

1.2.4.5.2 Identify and rent an appropriate room in the Parliament Palace to host the Secretariat

1.2.4.5.3 Provide the necessary technical equipment

1.2.4.5.4 Provide the necessary personnel

1.2.4.6 Take pictures during the works to be offered to the participants at the departure

1.2.4.6.1 Brief the IT&C Director on the requirements

1.2.4.6.2 Carry out the picture taking

1.2.4.6.3 Print the photos

1.2.4.6.4 Buy appropriate photo albums and put the pictures into them

1.2.4.7 Organize the coffee break, lunch and closing reception

1.2.4.7.1 Brief the Logistics Director on the requirements

1.2.4.7.2 Identify the appropriate lounges in the Parliament Palace

1.2.4.7.3 Rent the lounges

1.2.4.7.4 Provide the catering

1.2.4.7.5 Buy symbolic presents to be offered to the participants during the closing reception

1.2.4.8 Make the reservation for the guided tour of the Parliament Palace

1.2.5 Prepare Presentation Kits to be offered to the participants

1.2.5.1 Prepare the welcoming letters from the Director General

1.2.5.1.1 Draw up a draft letter

1.2.5.1.2 Decide on the final text

1.2.5.1.3 Provide a template and the needed data

1.2.5.1.4 Print the letters

1.2.5.1.5 Sign the letters

1.2.5.2 Prepare the badges

1.2.5.2.1 Provide a template and the needed personal data

1.2.5.2.2 Print the badges

1.2.5.2.3 Buy the covers

1.2.5.3 Prepare the Plenary Meeting written program

1.2.5.3.1 Provide a template for the written program

1.2.5.3.2 Print the program

1.2.5.4 Prepare the brief presentation of Bucharest

1.2.5.4.1 Provide the needed data to be included in the presentation

1.2.5.4.2 Draw up and provide a template

1.2.5.4.3 Print the presentation

1.2.5.5 Prepare the feedback form to be filled in by the participants

1.2.5.6 Buy the files for the Presentation Kits

1.2.6 Organize the departure of the delegates

1.2.6.1 Book the protocol lounge and catering services at the "Henri Coanda" International Airport

1.2.6.2 Establish the number and type of cars for the transportation of the participants from the hotel to the airport

1.2.6.3 Provide the necessary means of transportation

1.3 Promote the success of the Plenary Meeting at the end of the event (3 October 2012), thus enhancing the Service image as reliable partner among the foreign counterparts and at the NATO level

1.3.1 Prepare a Press Release at the end of the Plenary Meeting

1.3.1.1 Gather and analyze the information for the Press Release

1.3.1.2 Draw up a draft of the Press Release

1.3.1.3 Decide on the final form of the document

1.3.1.4 Issue the Press Release

1.3.2 Cover the event on the Service's and NATO's official websites

1.3.2.1 Translate into English the Press Release

1.3.2.2 Upload the Press Release (in Romanian and English) and photos from the works on the Service's site

1.3.2.3 Share to the NATO website Admin the English version of the Press Release and photos to be uploaded on the site

III. TIME MANAGEMENT PLAN (GANTT CHART)

The Gantt Chart of the Project is presented in the Appendix.

IV. HUMAN RESOURCE MANAGEMENT

The Linear Responsibility Chart for the Project is described in the table below:

Table 1

Activity	DG	Deputy DG	IC Dir	PM	AT Dir	IT&C Dir	Log Dir	Sec Dir	HoP
1.1.1			2	1	3				
1.1.2		2		5	1				
1.2.1		6	2	1			4		3
1.2.2			2	5			3		1
1.2.3	5	5	2	5	3				1
1.2.4	5	6	5	1	3	3	3	3	1
1.2.5	6	2	5	1					1
1.2.6			2	5			3		1
1.3.1		6	5	1	4		4	1	4
1.3.2		5	2	1		4		1	

Legend

DG	Director General	1	actual responsibility
Deputy DG	Deputy Director General	2	general supervision
IC Dir	International Cooperation Director	3	must be consulted
AT Dir	Antiterrorism Director	4	may be consulted
Log Dir	Logistics Director	5	must be notified
Sec Dir	Secretariat Director	6	approval authority
HoP	Head of Protocol		

V. COMMUNICATIONS MANAGEMENT

The communications during the Project are to be performed based on the following Communication Matrix:

Table 2

Stakeholders	Project stage interest	Expectations/ Concerns	Who conveys the message	When the message is conveyed	Message format	Message content
CSAT[1] Chairman	Closing	Quality (*security included)	Director General	Mid October	Written report	Project deliverables
Director General	Planning	Quality* Schedule	Deputy Director General	Early and late September	Written reports	Project overview Stage overview
	Closing	Quality*	Deputy Director General	10 October	Written report	Feedback from the participants Benefits Media exposure
Deputy Director General	Equally in all phases	Cost Quality* Schedule	Project Manager	Every week during the project (on Fridays)	Formal meeting	Project phases Current status Changes
NATO CIC members	Planning	Quality* Schedule	Project Manager	Late September	Written message	Organizational details Security measures
				3 October	Feedback form	Quality and security assessment questions
International Cooperation Director	Equally in all phases	Cost Quality* Schedule	Project Manager	Twice a week	Intranet briefing	Project current status
Project Working Group	Equally in all phases	Cost Quality* Schedule	Project Manager	Twice a month (starting with 2 July)	Informal meetings	Project introduction Project phases Deliverables Requirements Current status To do activities
				At any moment required by the Project development	Intranet Phone Video conference	High level decisions Changes occurred

[1] The Supreme Council of National Defense

VI. PROJECT COST MANAGEMENT

VI.1. Resource Pool Description

The type and quantity of resources needed in the Project are presented in the table below:

Table 3

Resource type	Name	Number
Human resource	International Cooperation specialists	3
	Antiterrorism specialists	20
	Protocol specialists	6
	Logistics specialists	3
	Drivers	20
	IT&C specialists	10
	Secretariat specialists	2
	Photographers	2
	Chefs	3
	Waiters	8
	PR specialists	1
	Translators	1
Equipment	Cars	30
	Buses	1
	Guns	17
	Ammunition	340
	Antiterrorism communication set of devices	17
	Anti-bomb scanners	2
	PCs	15
	Color printers	5
	Scanners	1
	Copy machines	1
	Photo cameras	1
	Photo printers	1
	Fax machines	1
	Audio-conference microphones	30
	Headsets	70
	Diffusers	4
	Amplifiers	2
	Full-set projection equipments	1
Materials	Special paper	500 sheets
	Files	70 pcs.
	Tonners	10 pcs.
	Gift bags	70 pcs.
	Albums of Romania	60 pcs.

Resource type	Name	Number
	Plastic covers for badges	80 pcs.
	Connectors	100 pcs.
	Cable	500 m
	Fuel	300 liters
Services	Accommodation	60 rooms * 2 nights
	Hotel lounge and catering	1 package
	Airport lounge and catering	1 package * 2 times
	Plenary hall for official works	1 hall
	Main venue lounges	3 lounges
	Catering	65 menus * 3 times

VI.2. Cost Breakdown Structure

A meeting similar to that subjected to this Project was organized by our institution in 2010, and it cost 130,000 RON.

Based on the order of magnitude estimate, the budget for the Project is 143,000 RON, including a contingency sum of 10% (13,000 RON). As stated in the Business Case, the budget is not fix, but it can be increased depending on the needs.

The cost breakdown structure of the Project is described in the table below:

Table 4

Direct labor	26,500 RON*
Direct materials	102,000 RON
Direct expenses	1,500 RON
Prime cost	*130,000 RON*
Overhead costs	-
Contingency sum	10% (13,000 RON)
TOTAL	143,000 RON

* The persons employed in the Project are all employees of the institution, not specially allocated for the Project, thus they receive only the regular wages.

VII. PROJECT QUALITY MANAGEMENT

As mentioned in the Section II.2., the three objectives targeted by the Project are security, program observance and Service image enhancement i.e. Quality Factors.

Against this background, all the activities involved by the Project (see the WBS) are planned to provide the achievement of the Quality Factors. Thus, there is no need for other dedicated Quality Activities for the Project.

In the table below there are to be found a list of the Quality Factors, their description, the deliverables and the acceptance criteria for each of them, as well as the activities generating the deliverables:

Table 5

Quality Factor	Description	Deliverables / Acceptance Criteria	Activities Generating Deliverables
Security	The extent to which the security requirements for such an event are met	No security incidents Clear understanding of the security risks	1.1.1 – 1.1.2
Resource Effectiveness	The extent to which the optimal resources are assigned and used to ensure a quality and on-schedule Plenary Meeting	No more than 30 min. of waiting in the airport at the arrival and no more than 75 min. at the departure No poor services incidents No delay of the official works No communication shortages during the official works Complete and without mistakes Presentation Kits	1.2.2 – 1.2.6
Future Professional Image	The extent to which the development of the Plenary Meeting is likely to enhance the image of the Service as reliable partner among foreign partners and at the NATO level	Positive feedback from the participants	1.1.1 – 1.1.2 1.2.2 – 1.2.6
Future Public Perception	The extent to which the organization of the Plenary Meeting is likely to improve the perception of the public opinion about the Service	No delay in issuing the Press Release Positive press covering of the event on 4 October More than 1,000 accessions of the information provided on the SRI and NATO websites in the first week after the event	1.3.1 – 1.3.2

VIII. PROJECT RISK MANAGEMENT

There are 4 risks identified for the Project:

- security threats;
- delays in the activities included in the program;
- poor cover of the event in the media and on the websites;
- over budget.

Out of these, the first three require a countering strategy.

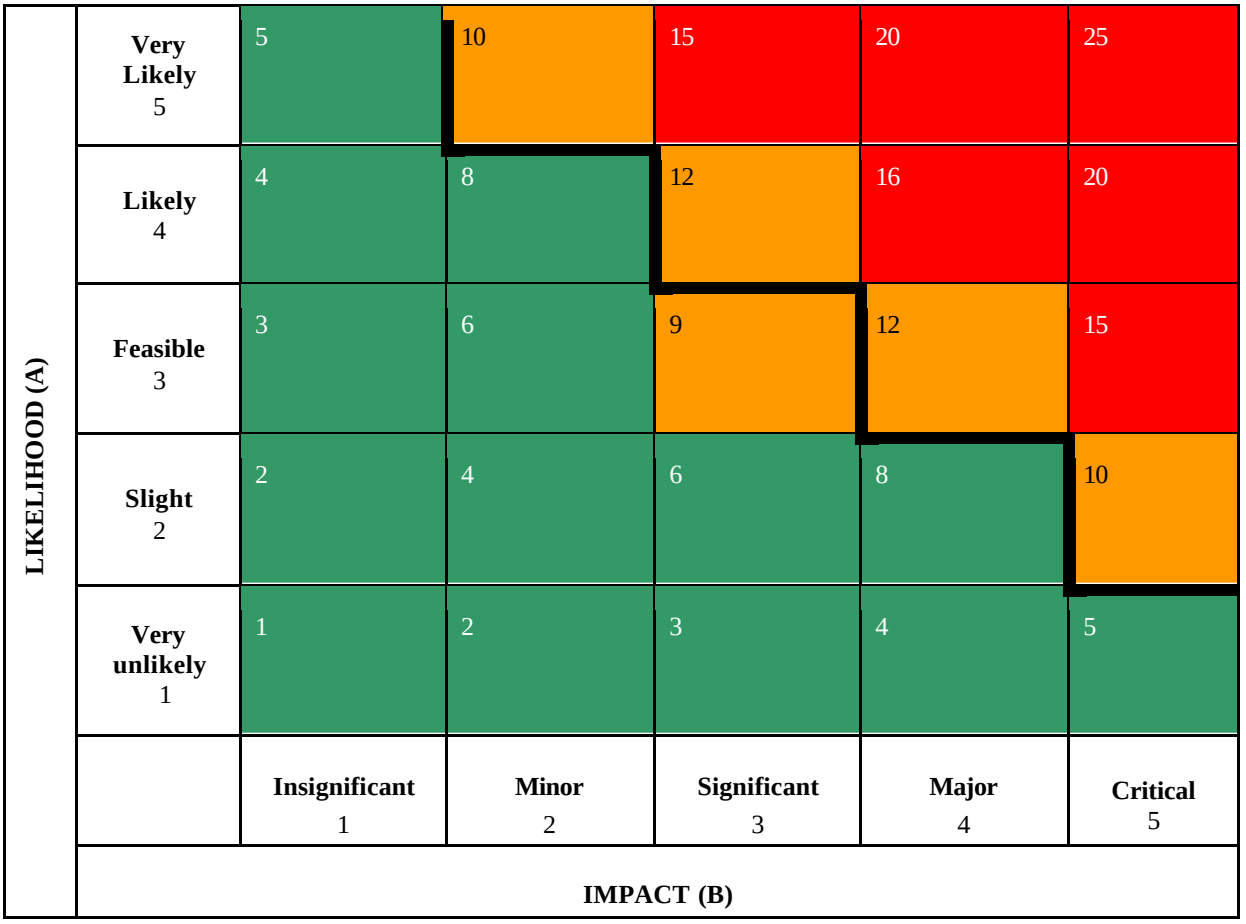
The rating of the risks, their description, and the strategy for tackling them are presented in the table below:

Table 6

Risk	Rating*	Description	Strategy to counter
Security threats	20 (4A*5B)	- Unexpected extremist manifestations during the event - Terrorist threats against participants or the event itself	Risk avoidance: - good assessment of the information received from the foreign partners - clear briefing of the AT Department - increase the terrorist threat level from cautious to moderate
Delays of the activities included in the program	12 (3A*4B)	- Early arrivals or delays / cancelations of the flights - Unexpected changes in the program of the delegates - Lack of a certain resource at a required moment	Risk avoidance: - drawing up a clear and agreed program - clear briefing of the Departments involved about the requirements - reallocation of the resources at disposal
Poor covering of the event in the media and on the websites	12 (4A*3B)	- Mass media not broadcasting the Press Release issued to the News Agencies - Long-lasting technical problems with the websites - Not positive perception of the public opinion on the	Risk mitigation: - good synthesis of the information to be included in the Press Release - good translation into English of the Press Release - send the Press Release directly to some nation wide covering media

Risk	Rating*	Description	Strategy to counter
		Service role in the success of the event	
Over budget	4 (4A*1B)	**Note:** The budget for the project is not a fix one; it can be increased depending on the needs that might come up while carrying it out	Risk acceptance

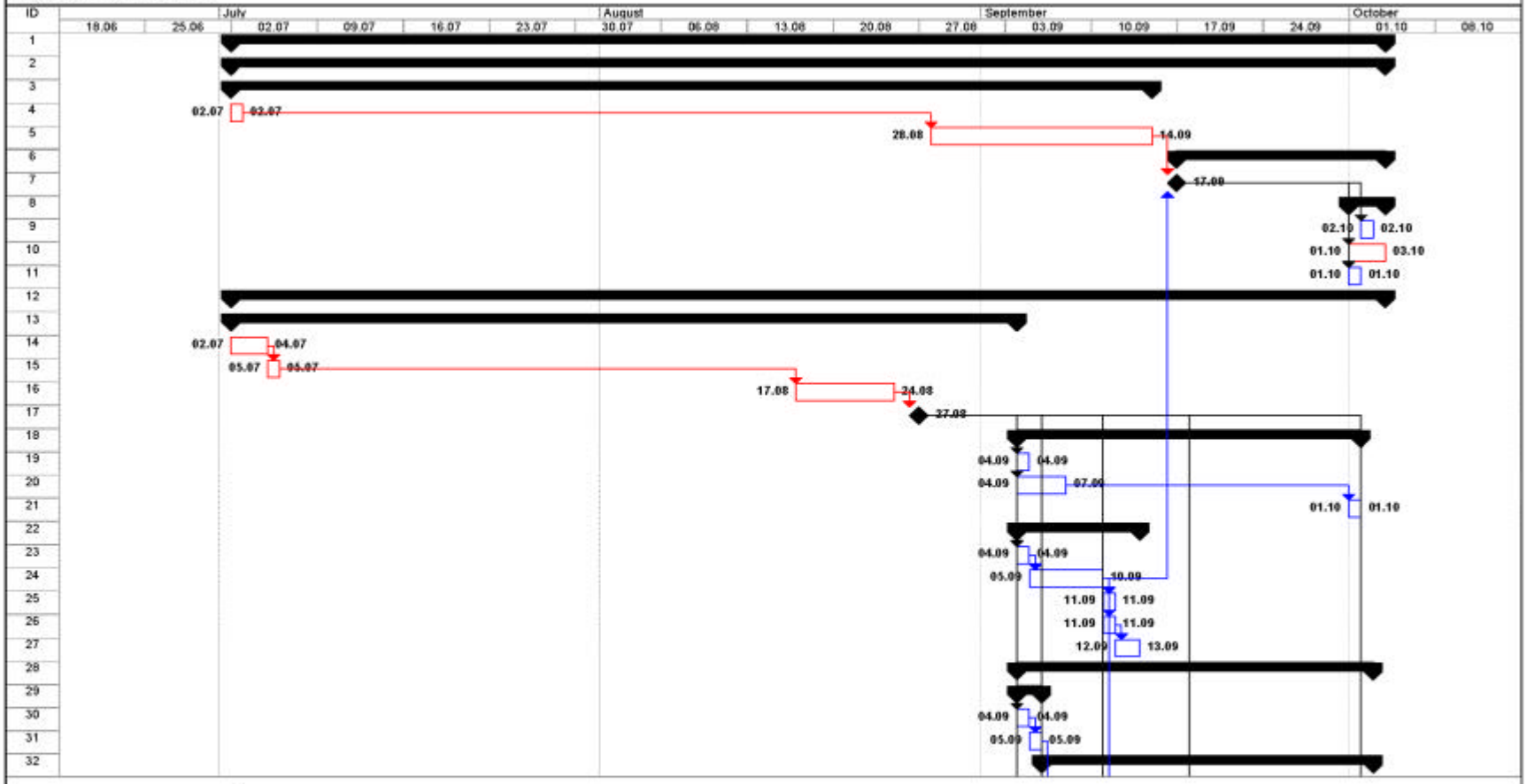
*Based on the below Risk Matrix



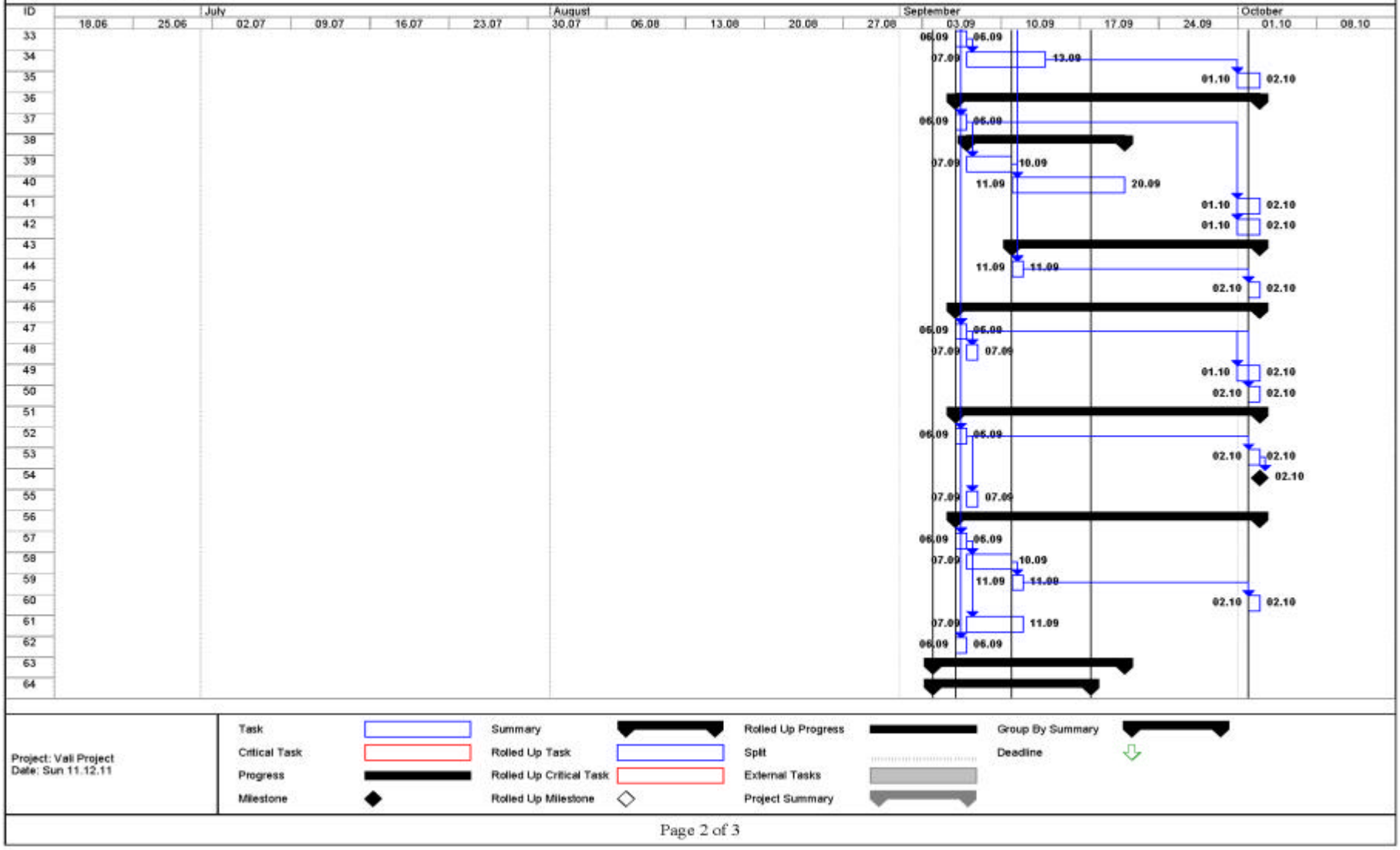
Green = Low risk, Amber 9 = Medium risk, Amber 10 – 12 = High risk, Red = High risk

Likelihood of Occurrence (A)		Severity of Impact (B)	
1- Very unlikely	(hasn't occurred before)	1 - Insignificant	(have no effect)
2 - Slight	(rarely occurs)	2 - Minor	(little effect)
3 - Feasible	(possible, but not	3 - Significant	(may pose a problem)
4 - Likely	(has before, will again)	4 - Major	(will pose a problem)
5 - Very Likely	(occurs frequently)	5 - Critical	(immediate action required)

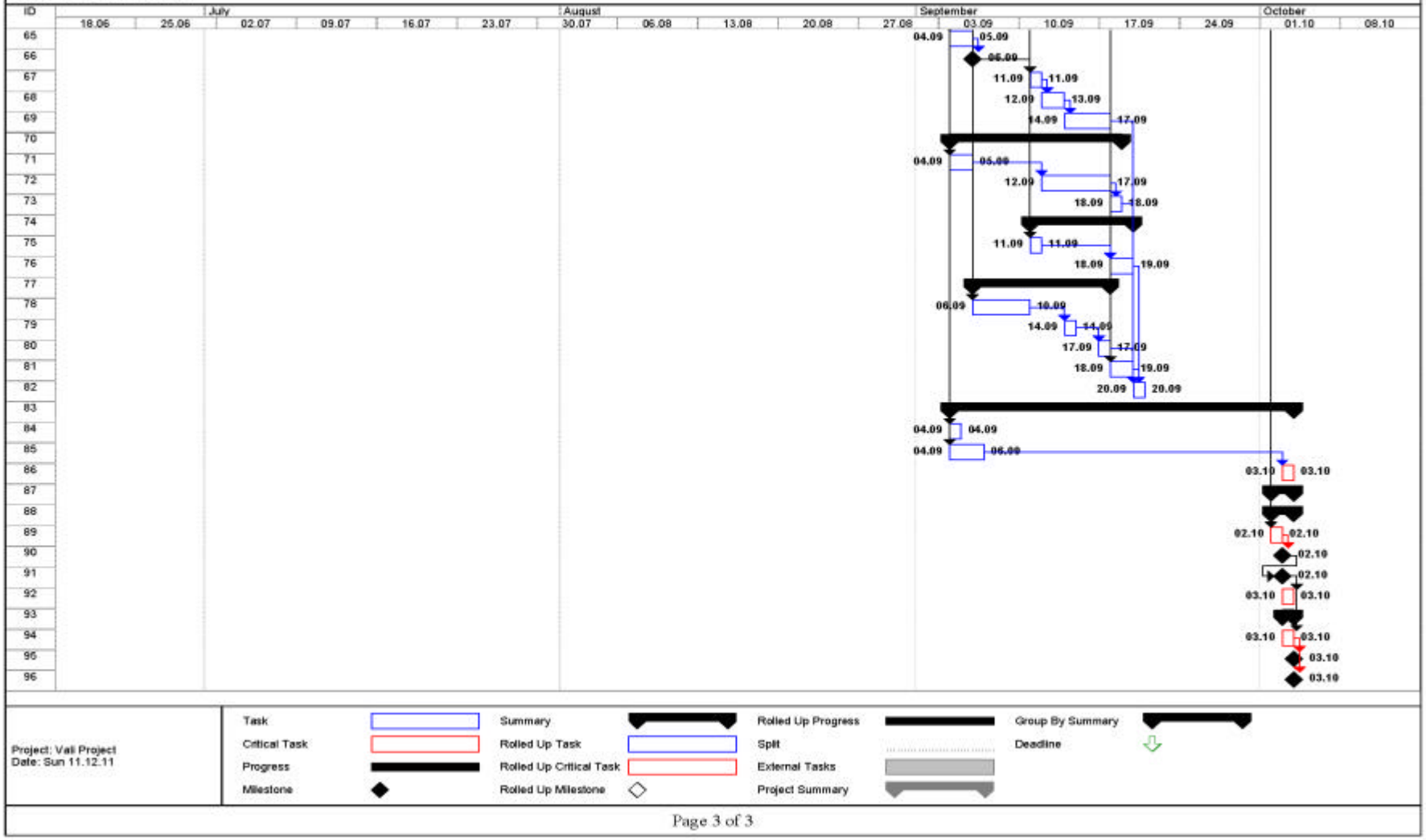
Appendix - Gantt Chart



Appendix - Gantt Chart



Appendix - Gantt Chart



Replace the accounting software used in MoD FAD – Financial Accounting Directorate

LT Nicolae-Laurentiu DINU

1. BUSINESS CASE

Starting from January 2011 the actual accounting software is no longer working hence the FAD made a request for solutions to solve the problem and cover the increasing needs of the beneficiaries.

The current accounting software was developed more than 25 years ago and since then suffered a lot of minor of major changes and several updates. In the last 10 years there were some initiatives to optimize and make this software more stable, more user-friendly and more efficient, but the positive results expected were below initial expectations. The lessons learned from previous actions revealed three major problems:

- the software is restricted to an old and deprecated operating system (Windows 95);
- the developing software used for this implementation is old and deprecated (Cobol);
- the lack of development documentation and few specialists available in order to upgrade the current software

Although the actual software was obsolete and was running very slow, the financial departments of MoD continued to use it since January 2011. In that moment the accounting software was no longer working and his life cycle came to an end. Hence the FAD made a request to the MISSA (Military Information System and Services Agency) to propose one or more solution to solve this new problem which also will cover the increasing needs of the beneficiaries.

For this purpose, the FAD organized a number of meetings between different types of specialist from main stakeholders and MISSA to settle the main key points of the project: time, costs and benefits. As result of these discussions, the next constraints were identified and settled down:

- the duration of the project must be as short as possible, taking into account that this project is critical and affects almost all the MoD units – no more than one year;
- the budget for this project must use only existing resources and will not require extra costs;
- the reduced number of team members comparing to the complexity of the project

After finalizing these preliminary meeting, the MISSA specialists draw up three main aspects which the project team must take care of:

- implement all the existing features of the accounting software and optimize especially the dynamic aspect of the computation algorithms and formulas, as the old software

have few possibilities for dynamic and controllable changes according to the law changes;

- develop new facilities according to the needs and business requirements of the beneficiaries;
- take into account future integration with other software products

Once assumed and settled the main constraints discovered and the main directions to be followed, the authority person of MISSA must assign a project manager which will be responsible for this project. This decision will be made by taking into account several assumptions:

- buying off the shelf software and customizing is more expensive than developing the a software with similar characteristics in-house;
- optimizing is less cost effective than replacing the old software
- all the team members are sufficient, so is no need to hire more people;
- the team members involved in this project have enough experience dealing with high complexity projects like this one and don't need any training courses;
- the hardware resources necessary for this project are already available and functional;
- the installation kits and software licenses needed in developing the software application which MISSA detain are sufficient and up-to-date;
- the salary laws, mainly the basis of the business requirements, will not change before the end of the project

Start Date: 2012-01-01

End Date: 2012-12-31

2. SCOPE MANAGEMENT PLAN

a. Goal

The goal of the project is to develop new accounting software for financial departments of MoD units in order to replace the old and deprecated software and to increase the work efficiency of the beneficiaries.

b. Objectives

1. Analyze at least 90 percent of the business requirements necessary for developing the new accounting software in no more than 4 months.

2. Design the basic system architecture according to the requirements identified in the analysis process and to the system constraints imposed (network security level, free software licensing, etc.) during less than 2 months.
3. Develop first version of the accounting software (web application) as part of future ERP (Enterprise Resource Planning) software according to the financial specialists' requirements in a maximum period of 6 months.
4. Test all functionalities of the software application in order to reduce the error rate by 90 percent within 2 months.
5. Training of users and administrators and deploy the new accounting software in no more than 1 month.

c. Work Breakdown Structure (WBS**)**

The project has 26 activities grouped in five stages or phases: analysis, design, development, testing and deployment. There are also 5 milestones planned, with estimated completion dates, in order to establish the checkpoints of the critical path of the project. Therefore the success of the project depends on following timing:

- Realize the final analysis document : 03/18/2012;
- Ending of the system architecture design : 04/30/2012;
- Release the alpha version of the accounting software : 09/30/2012;
- Release the beta version of the accounting software : 11/02/2012;
- Final deployment : 12/30/2012;

The detailed work breakdown structure is to be found in Appendix 1.

3. TIME MANAGEMENT PLAN

The total duration of the project is one year and spilt by the phases the main periods are:

- analysis phase : 12 weeks;
- architecture design phase : 7 weeks;
- software development : 22 weeks;
- testing and error solving : 5 weeks;
- deployment phase : 6 weeks;

The detailed time management plan of the project is represented by the Gantt chart from the Microsoft Project in the Appendix 2.

4. HUMAN RESOURCE MANAGEMENT

The human resource management probably is one of the most difficult tasks for the project manager and one of the most vital features to achieve success in project management. Especially in IT projects, team members are not routine workers as each of them has special skill sets. The project manager must understand this situation and should be sensitive towards people issues

In order to realize the linear responsibility chart, first the project manager has to identify the organizational positions needed and the main activities of the project. Than these activities must be break down in work pieces (or packages). After this step, each team member will be associated to these tasks as they have one or more duties or responsibilities. This matrix of roles and activities is very useful at the beginning of the project as all the team members will know from the start what the project manager expect from them. Mainly each activity must have at least one responsible and one or many executants.

Table No. 1 Linear Responsibility Chart

Activity Code	Cdt	PM	AM	AA	DB Dsgn	SW Dsgn	SA	Web Dsgn	DB Dev	SW Dev	TST	AST	TR
1.1.1	5	2	1, 7									3	
1.1.2		2	1									7	
1.1.3		2	1									7	
1.1.4	5	2	1, 7	5	5	5		5	5	5		7	
1.1.6	6	1, 7											
1.2.1		2	3	1, 7	7	7						4	
1.2.2	6	2	4	2	3	1, 7	3	5	4	3, 7		4	
1.2.3		2	4	1, 7	7	7	4		3	3			
1.2.4	5	2		2	1, 7	4			3	5			
1.3.1			3	2			4	1, 7		3		4	
1.3.2		2		2			3, 7			1, 7			
1.3.3		2		2			3		7	1, 7	5		
1.3.4		2		2						1, 7			

1.3.5		2	1		3					3, 5		7	
1.3.6	5	2	4	1					7	7	3		
1.3.7		2	4				4	4	4	1, 7		4	
1.3.8		5		2	3		3, 7		3	1, 7			
1.3.9	5			2				7		1, 7			
1.3.10	5	2		5			3			1, 7			
1.4.1								4	3	3	1, 7	4	
1.4.2								4	3	3	1, 7	4	
1.4.3	5	5		2					7	1, 7	3		
1.5.1	6	2					3		3	3		1, 7	5
1.5.2	6	2					1, 7			3	3		5
1.5.3	6	2											1, 7
1.5.4	6	2											1, 7

Legend:

CDT = Unit Commander
PM = Project Manager
AM = Analyst Manager
AA = Application Architect
DBDsgn = Database Designer
SWDsgn = Software Designer
SA = System Administrator
WebDsgn = Web Designer
DBDev = Database Developer
SWDev = Software Developer
TST = Tester
AST = Analyst
TR = Trainer

1 = actual responsibility
2 = general supervision
3 = must be consulted
4 = may be consulted
5 = must be notified
6 = approval authority
7 = need to perform

5. COMMUNICATION RESOURCE MANAGEMENT

A good communication plan may realize the difference between a successful project and a failed project. In order to release a communication plan as in the table no.2, the project manager has to identify the communication stakeholders, their type and expectations and the frequency of communication.

Table No. 2 Communication Plan

Main Stakeholders	Type	Phases when is implicated	Expectation			Frequency of communication
			Cost	Quality	Schedule	
Financial Accounting Directorate	Influencer Decision maker	Equally in all phases	High	Medium	High	After finishing every phase When to make a decision
Financial departments of the main MoD units	Influencer	Planning Executing Operating	Low	High	High	After each analysis meeting Notify about publishing manuals Before the deployment
Analysis team	Performer	Executing	Low	High	Medium	In the analysis phase, weekly
Development team	Performer Technical expert	Planning Executing	Low	High	High	During the design and development phase, weekly
Testing team	Technical expert	Executing	Low	High	High	In the final phase of the development and in the testing phase, weekly
Management team	Influencer Decision maker	Executing Controlling	High	Medium	High	After finishing every phase When to make a decision

The communication matrix from table no. 3 is a more detailed plan which includes message format and content and moment when the message is conveyed.

Table No. 3 Communication Matrix

6. PROJECT COST MANAGEMENT

Project Stage	Target audience	Person(s) to convey the message	When the message is conveyed	Format of a message	Message content
Initial phase	Sponsor, main stakeholders, project manager, analysis team representatives	Sponsor representative	Start date	Presentation	• Project introduction • Expectations • Constraints • Current status • Deliverables
Analysis	Analysis team	Analyst manager	Weekly	Mail	• Stage overview • Meetings summary • Next week work plan
Analysis	All development team, all design team	Analyst manager	End of analysis phase	Presentation	• Data flow charts • Main business requirements
Design	Commander, Development team, Design team	Application architect	End of SWOT analysis	Presentation	• SWOT Analysis • Chosen solution • Main application modules
Development	Development team, Project manager	Software development team manager	Weekly	Mail	• Current status • Lessons learned • Other problems occurred
Development	Main stakeholders	Web designer	End of web design phase	Presentation	• System architecture • Application web design
Development	Main stakeholders	Software development team manager	End of one module	Presentation	• Features developed • Current status of development
Testing	Testing team, Project Manager	Software development team manager	End of development phase	Presentation	• Main features developed • Most important features
Deployment	Main stakeholders	Analyst manager	End of testing phase	Mail	• Web site link to the main manuals and documents of the project • Ask the need for training phase

6.1. Resource pool description

The project resources are divided in three main categories: human resources, equipments and materials. According to the constraints mentioned before in the business case, almost all the equipments and materials are already available. Regarding the human resources aspect, the team project must include only existing personal. One person may be associated with one or more roles in the project team.

The list of resources needed for this project contains:

a) Human resources

- 1 project manager
- 1 application architect
- 1 analyst manager
- 4 analysts
- 2 database designers
- 3 software designers
- 2 system administrators
- 2 web designers
- 2 database developers
- 6 software developers
- 2 testers
- 2 trainers

b) Equipments

- 20 work stations – for development
- 20 work stations – for training
- 1 developing server
- 1 testing server
- 2 image projectors
- 1 printer
- 1 fax

c) Materials

- 2 ink tonners
- 4 paper quires (500 sheets)
- 1 Adobe Photoshop license
- 1 Visual Studio 2008 Professional license
- 1 SQL Sever 2008 Enterprise license
- 1 Microsoft Visio 2007 license

6.2. Cost breakdown structure

The total cost of the project is estimated at approximate 145,000.00 RON and the detailed description is shown in the Appendix 3. Basically the cost of the project is computed in order to have an order of magnitude, so comparing with the cost to buy, customize and implement similar software available in the market, this solution will be adopted.

7. PROJECT QUALITY MANAGEMENT

7.1. Project quality definition

The accounting software will replace the actual software in order to increase the dynamic design, the effectiveness of the financial departments, the user work efficiency and provide high availability and security of the data. Also, it will have to decrease the time of development future versions.

7.2. Key quality concepts measurement

The new software must provide a better response for calculation changes and formulas so the dynamic design will help the user to track all the changes made and have the possibility to use the calculation module for current and future simulations of calculus and backward recalculation basis on the old law (old formulas and algorithms). These features will increase the dynamicity and adaptability of the new software at the law changes might occur.

Realized in the latest development technology, the effectiveness of the software will be clearly proved by the short time (less than 1 minute) needed for compute all salary components both for military and civilian personal of MoD units.

As the team project also developed the pension recalculation software for military personal and the software is module orientated designed the integration with other software application will be easier to accomplish. The integration with pension recalculation module will be almost a native one for the reasons presented above.

In order to increase the efficiency of the people using this software, the main user interface must be user-friendly and easy to learn and work with. After finishing the basic web design, the manager will provide a short presentation of the design template to receive feedback from the end-user from the main stakeholders. Also for this purpose, several training courses will be organized so reduce the reluctance of the people using the new software.

A more technical characteristic of the project which must be provided is the high availability of the software and data. In order to accomplish this, the software comes with a database maintenance plan (backup and recovery strategy so to reduce the downtime of the databases to less than 3 hours), software reinstallation procedures, software update procedures and nomenclatures and formula upgrade procedures.

Last but not the least the security developed for this project contains above the others: transparent data encryption so the lost or steeled data cannot be obtained, login of the users

according to the need-to-know concept implementation, logging application module configured to track and record all the actions of users in order have, if necessary, a non-repudiation facility.

7.3. List of deliverables and acceptance criteria

The main deliverables provided and the acceptance criteria are founded in the table no 4.

Table No. 4 Deliverables and Criteria

Key concept	Deliverable	Criteria	Activity
Dynamic	SWOT analysis as the basis for the chosen solution	Increase the flexibility in order to reduce the time needed to implement the necessary changes according to the law changes at less than 1 week	A8
Effectiveness	Test data results and simulations	Decrease the time for calculate wages for military and civilian personal by more than 50 percent	A14
	Final testing document	The error rate should be less than 10% and all errors discovered within the testing phase where solved.	A20
Efficiency	Install kit and install manual	Reduce the time of software update to less than 1 hour	A17
	User training course documents and presentations Administrator training course documents and presentations	Students are familiar with software features and procedures by the end of the course and provide positive feedback.	A24, A25
	Web design template	The software is user-friendly and easy to work with.	A10
Integration	Developer manual	Existence of documentation with all the specific functions and procedures needed for future development of the software.	A15, A18, A20
High availability	Administrator manual	The software implements a fully operational high availability solution for the application databases, so the downtime will be less than 3 hours	A13
Security	Administrator manual	Existence of various security mechanisms in accordance to the classification level of the network where the software will be installed	A13

8. PROJECT RISK MANAGEMENT

As any other projects, this project involves several risks more or less severity. It's very important as a project manager to realize the risk analysis in order to settle measures, actions and procedures to apply in case of one or more risk occurrence. Assuming these risks, the project manager will come up with a more realistic activity planning, so the probability of success for the project will increase.

The two main criteria used to compute the severity rating of the project risk where the possibility of occurrence (1 – 5 scale) and severity of impact on the project (1 – 5 scale). After setting values of these criteria for the risks discovered the rating and category of the risk is

settled by multiplying the two values. The result of this analysis is the risk matrix from the table no. 5.

Table No. 5 Risks Matrix

Risk Factor	Risk Description	Rating		Solving the problem
Integration	Application design doesn't permit integration with other related application (E.g. military pension recalculation software)	9	L = 3 I = 3	Redesign part of the application in order to provide necessary features
Human resources	Due to the decrease of the salary or lack of personal development perspectives, team members resign from the enterprise	16	L = 4 I = 4	Hire other specialists with similar experience and knowledge to include in the project team.
Time	The analysis phase will be delayed because of the stakeholders lack of involvement	15	L = 3 I = 5	Start the designing phase before the approval of the final analysis document at the end of the analysis phase
Quality	The team members have poor attitude toward quality of documents and final product	12	L = 4 I = 3	Provide templates and procedures for all team members involved for each phase of the project
Cost	The number of the work stations allocated for training sessions which have to be bought will reduce by 50% due to the lack of financial resources	10	L = 5 I = 2	Extend the period of training courses for users and administrators or reduce the number of students which can attend these courses.
Human resources	Reluctance of the users to the new software	8	L = 4 I = 2	
Scope	Salary law changes during the execution of the project	20	L = 4 I = 5	Reanalyze the business requirements affected by the law changes and implement the new algorithms in order to calculate correct values of the salaries according to the new law.

Legend:

Likelihood of Occurrence (L)		Severity of Impact (I)	
1 - Very unlikely	(hasn't occurred before)	1 - Insignificant	(have no effect)
2 - Slight	(rarely occurs)	2 - Minor	(little effect)
3 - Feasible	(possible, but not	3 - Significant	(may pose a problem)
4 - Likely	(has before, will again)	4 - Major	(Will pose a problem)
5 - Very Likely	(occurs frequently)	5 - Critical	(Immediate action required)

Rating: 1 – 8 Low Risk; 9 – 12 Medium Risk; 15 – 25 High Risk.

Appendices

Appendix 1: Work Breakdown Structure (WBS)

ID	Task Name	Duration	Start	Finish	Predecessors
1	**1 Accounting software in MoD**	**260 days**	**Mon 1/2/12**	**Sun 12/30/12**	
2	**1.1 Analyze the business requirements**	**60 days**	**Mon 1/2/12**	**Fri 3/23/12**	
3	1.1.1 Establish analysis meetings with financial specialists from almost all the main stakeholders	5 days	Mon 1/2/12	Fri 1/6/12	
4	1.1.2 Participate at the analysis meetings (aprox. 20 meetings)	20 days	Mon 1/9/12	Fri 2/3/12	3
5	1.1.3 Identify the business requirements, data flows and constraints regarding the new accounting software during the process of analyze through s	20 days	Mon 1/23/12	Fri 2/17/12	4SS+10 days
6	1.1.4 Organize and aggregate all the information collected by the end of the analysis process	20 days	Mon 2/20/12	Fri 3/16/12	5SS+20 days
7	1.1.5 Realize final analysis document	0 days	Sun 3/18/12	Sun 3/18/12	6
8	1.1.6 Obtain the approval for the final analysis document	5 days	Mon 3/19/12	Fri 3/23/12	7
9	**1.2 Design the basic software architecture**	**35 days**	**Mon 3/12/12**	**Mon 4/30/12**	
10	1.2.1 Study the final analysis document in order to extract the key concepts and main data	10 days	Mon 3/12/12	Fri 3/23/12	6FS-5 days
11	1.2.2 Elaborate the system architecture and identify the main modules of the software application	5 days	Mon 3/26/12	Fri 3/30/12	10
12	1.2.3 Find solutions to reduce the time needed for calculate the salary values and adopt the most efficient	10 days	Mon 4/2/12	Fri 4/13/12	11
13	1.2.4 Realize the database design	10 days	Mon 4/16/12	Fri 4/27/12	12,8
14	1.2.5 Ending of the system architecture design	0 days	Mon 4/30/12	Mon 4/30/12	13
15	**1.3 Develop first version of web application**	**110 days**	**Mon 4/30/12**	**Sun 9/30/12**	
16	1.3.1 Realize the web design	10 days	Mon 4/30/12	Fri 5/11/12	14
17	1.3.2 Implement the administration module	10 days	Mon 4/30/12	Fri 5/11/12	16SS
18	1.3.3 Develop activity logging functions used in the entire application	5 days	Mon 5/14/12	Fri 5/18/12	17
19	1.3.4 Develop main user interface	20 days	Mon 5/21/12	Fri 6/15/12	18
20	1.3.5 Load test nomenclatures and formulas	20 days	Mon 5/14/12	Fri 6/8/12	17
21	1.3.6 Realize the calculations module and optimize time needed for calculate wages	30 days	Mon 6/18/12	Fri 7/27/12	18,19,20
22	1.3.7 Make the reporting module	30 days	Mon 7/16/12	Fri 8/24/12	21FS-10 days,19
23	1.3.8 Develop security functionalities either as part of the web application or as part of hardware solution (maintenance, update, etc)	10 days	Mon 8/27/12	Fri 9/7/12	22
24	1.3.9 Interconnect all the modules previously developed	10 days	Mon 9/10/12	Fri 9/21/12	19,17,23,21,22,16
25	1.3.10 Prepare the install and update facilities	5 days	Mon 9/24/12	Fri 9/28/12	24
26	1.3.11 Release the alpha version of the accounting software	0 days	Sun 9/30/12	Sun 9/30/12	25
27	**1.4 Testing the software application**	**25 days**	**Mon 10/1/12**	**Fri 11/2/12**	
28	1.4.1 Testing modules one by one	15 days	Mon 10/1/12	Fri 10/19/12	26
29	1.4.2 Testing links between different modules functionalities	5 days	Mon 10/22/12	Fri 10/26/12	28
30	1.4.3 Solve the errors occurred and optimize if is necessary several computing procedures	10 days	Mon 10/22/12	Fri 11/2/12	29FS-5 days
31	1.4.4 Release the beta version of the accounting software	0 days	Fri 11/2/12	Fri 11/2/12	30
32	**1.5 Deployment of the accounting software**	**30 days**	**Mon 11/5/12**	**Fri 12/14/12**	
33	1.5.1 Publish the update methodology, the user manual, the install manual	2 days	Mon 11/5/12	Tue 11/6/12	31
34	1.5.2 Pilot-project or first software version deployment on 5 representative military units and adjust any problems according to the feedback received	8 days	Wed 11/7/12	Fri 11/16/12	33
35	1.5.3 Organize training for the accounting software administrators	10 days	Mon 11/19/12	Fri 11/30/12	34
36	1.5.4 Organize basic training for users	10 days	Mon 12/3/12	Fri 12/14/12	35SS
37	1.6 Final deployment	0 days	Sun 12/30/12	Sun 12/30/12	

Appendix 2: Gantt chart

Appendix 3: Cost Summary

ID	Resource Name	Max. Units	Std. Rate	Cost	Work
1	Project Manager	100%	25.00 RON/hr	1,000.00 RON	40 hrs
2	Application Achitect	100%	20.00 RON/hr	3,200.00 RON	160 hrs
3	Analyst Manager	100%	15.00 RON/hr	4,320.00 RON	288 hrs
4	Analyst	400%	10.00 RON/hr	16,760.00 RON	1,676 hrs
5	Database Designer	200%	15.00 RON/hr	4,800.00 RON	320 hrs
6	Software Designer	300%	15.00 RON/hr	7,200.00 RON	480 hrs
7	System Administrator	200%	20.00 RON/hr	4,650.91 RON	232.55 hrs
8	Web Designer	200%	10.00 RON/hr	3,200.00 RON	320 hrs
9	Database Developer	200%	15.00 RON/hr	8,583.12 RON	572.2 hrs
10	Software Developer	600%	15.00 RON/hr	32,166.23 RON	2,144.42 hrs
11	Tester	200%	10.00 RON/hr	3,200.00 RON	320 hrs
12	Trainer	200%	10.00 RON/hr	3,200.00 RON	320 hrs
13	Work stations (computers) - for training	2,000%	0.00 RON/hr	20,000.00 RON	1,615.3 hrs
14	Work stations (computers) - for development	2,000%	0.00 RON/hr	10,262.34 RON	6,996.62 hrs
15	Developing Server	100%	0.00 RON/hr	4,440.00 RON	512 hrs
16	Testing Server	100%	0.00 RON/hr	3,600.00 RON	240 hrs
17	Image projector	200%	0.00 RON/hr	625.00 RON	281.18 hrs
18	Printer	100%	0.00 RON/hr	180.00 RON	43.2 hrs
19	Fax	100%	0.00 RON/hr	84.00 RON	43.2 hrs
20	Ink tonner	200%	0.00 RON/hr	30.00 RON	7.2 hrs
21	Paper quire (500 sheets)	400%	0.00 RON/hr	10.00 RON	4 hrs
22	Adobe Photoshop license	100%	0.00 RON/hr	350.00 RON	80 hrs
23	Visual Studio 2008 Professional license	100%	0.00 RON/hr	4,016.40 RON	584.2 hrs
24	SQL Server 2008 Enterprise license	100%	0.00 RON/hr	5,000.00 RON	600 hrs
25	Microsoft Visio license	100%	0.00 RON/hr	200.00 RON	40 hrs

OPEN SOURCES PLATFORM

Cpt. PhD Student Eng. Dragos DINU

0. BUSINESS CASE

In the context of globalization, the intelligence services in the Euro-Atlantic area are currently facing the exponential development of information obtained from publicly available sources (media, public data, professional and academic analyses and report, etc.) that can significantly contribute to decision making in the field of national security, by their quick availability and comprehensive coverage. For the NATO and UE secret services, the use of open sources (Open Sources Intelligence – OSINT) tends to become one of the key modalities supporting strategic decisions.

Even though open sources cannot represent a substitute for the information obtained from secret sources, they represent a crucial domain for the decision makers, mainly at two levels:

- **The early warning function** in the context of the emergence of certain risks or crises with impact on the national security;
- **The analytical function** structured on two dimensions:
  1. The support for the documentation necessary for the intelligence operational units;
  2. The development of strategic analyses on trends of certain risks or threats to basic interest and values of the Romanian state and society, on the medium and long term.[1]

In these circumstances is mandatory for Open Source Centre to have an up to date integrated system in order to create the premises of **early warning function** and **analytical function**. The integrated system should provide automated processes for:

- **Collecting data** from Internet (new agencies, web sites, blogs, social networks etc.);
- **Processing data** consisting in: indexing, filtering, categorizing, editing etc.

Considering the amount of data from the Internet and mass media, the OSC specialists are overloaded with tasks that can be replaced with automated processes.

In this context, the OSC IT Department initiated a project for implementation of an integrated software solution, which will provide automated processes for collecting and processing data, in a single software platform with multiple functionalities.

According to an analysis conducted by the OSC Deputy Chief and Head of IT department, the software platform implementation will increased by 80%, the amount of data collected from Internet and audio/ video sources. This will create the premises for a new

[1] http://www.sri.ro/categorii/17/open-source-center.html

workflow which will increase the weight of analysis activities, reducing the importance of collection activities.

For this project, funded by OSC budget, will be used internal resources (specialists, hardware infrastructure etc.).

The stakeholders of this project are:

- Romanian Intelligence Service, represented by Deputy Director as sponsor;
- Open Source Centre.

The estimated duration of the project is **16 months**, starting from 16.01.2012.

2. SCOPE MANAGEMENT PLAN

1.0. Goal

The OSC IT Department will implement a software platform based on an integrated system, for OSC specialists, in order to improve their efficiency and productivity, by automation of data collecting and processing activities, focusing on **early warning** and **analytical function**.

1.0. Objectives

0. Purchase a software package to automate data collection and processing activities, by the 24th of February, 2012;
0. Create a hardware architecture (development, nonproduction and production environments) to implement the integrated software solution, by the 1st of March, 2012;
0. Install the software package on the hardware architecture, by the 27th of March, 20112;
0. Develop a software platform to access and process data automatically collected, by the 4th of October, 2012;
0. Provide, up to 8 January 2013, qualified resources (trained users, methodology etc.) for the operation software platform;
0. Implement the software solution and the new work flow on the production environment, by the 22nd of May, 2013.

1.0. Assumptions

- The hardware equipments that are to be used in the project were purchased in 2010 as resources for OSC infrastructure.
- All other materials required in the project are in the inventory of OSCs.
- The project team members will be paid with their monthly salary according to their position and responsibility;
- The software platform will be implemented in-house by the Service's specialists;
- The IT specialists are trained to install and configure the software package which should be purchased, due to an exchange of experience, in 2010, between producer's consultants and Service's specialist. The activity was a result of a "Proof of concept" session during which were presented the main functionalities, as well as the installation and configuration algorithms;
- A document containing the requirements for software platform functionalities, elaborated by the Analysis Department and Collecting Department, was delivered to the technical team, in June, 2011. Based on those requirements the Head of IT Department initiate this project;
- The Project Plan may change as new information and issues are revealed.

1.0. Project approach and Work Breakdown Structure (WBS)

To achieve the first objective, the project team collaborating with the Acquisition Department, should purchase the software package (activity no. 1.1.1.), containing the **engine software** (for indexing, filtering, categorizing, summarizing etc.), **Internet data collection module** (IDCM - download data from web sites according to the parameters established in the configuration file) and **Audio/Video capturing module** (AVCM - captures sound and video form radio and TV channels, creates automatic transcripts etc.).

When the acquisition procedure is completed and the products are delivered, the team technical members should proceeds installing and configuring the hardware architecture (HA). The HA contains 3 main working environments: **production** (used for installing the new software solution after all the tests are passed, activity no. 1.2.1), **nonproduction** (used

for installing the software solution and testing without interfering with current production environment, activity no. 1.2.2.) and **development** (used for developing new functionalities, setting new parameters, test them and then upload in the production environment, activity no. 1.2.3.)

The installation and configuration of the 3 working environments should be concluded be passing an operational test, activity no.1.2.4.

The third objective should be achieved we the software package installation and configuration are finished. The configuration of IDCM and AVCM are to be made according to the requirements of the Collecting Department (activities no. 1.3.1-1.3.4). This stage should be concluded with a performance test (activity no. 1.3.5).

Software developers (SD) should start working after the performance test is passed. Their tasks are to design and develop a software platform which should integrate the engine software and the capture modules (activities no.1.4.1, 1.4.2). SDs should receive the detailed requirements from the Analysis Department and Collecting Department. They should deploy the software platform on the nonproduction environment (activity no. 1.4.4), create users accounts and conduct a performance test in which all the functionalities should be tested (activity nr. 1.4.5). The project manager (PM) should issue a status report containing the summary of the tasks completed, the conclusions drawn after the performance test and schedule for the next tasks (activity no. 1.4.7).

Starting with activity no. 1.5.1 the project team should generate qualified resources for the future activity of OSC. Qualified resources includes: a commonly agreed methodology, a workflow designed for the software platform and trained users which should generate productivity and efficiency (activities no. 1.5.2 and 1.5.3). An acceptance test should be conducted on the new system. If no problems accoutred during acceptance test, then the software platform should be deployed on the production environment (activity no. 1.6.1) and the new workflow should be implemented (activity no. 1.6.2).

The WBS containing the activities and their description are to be found in the Table no.1.

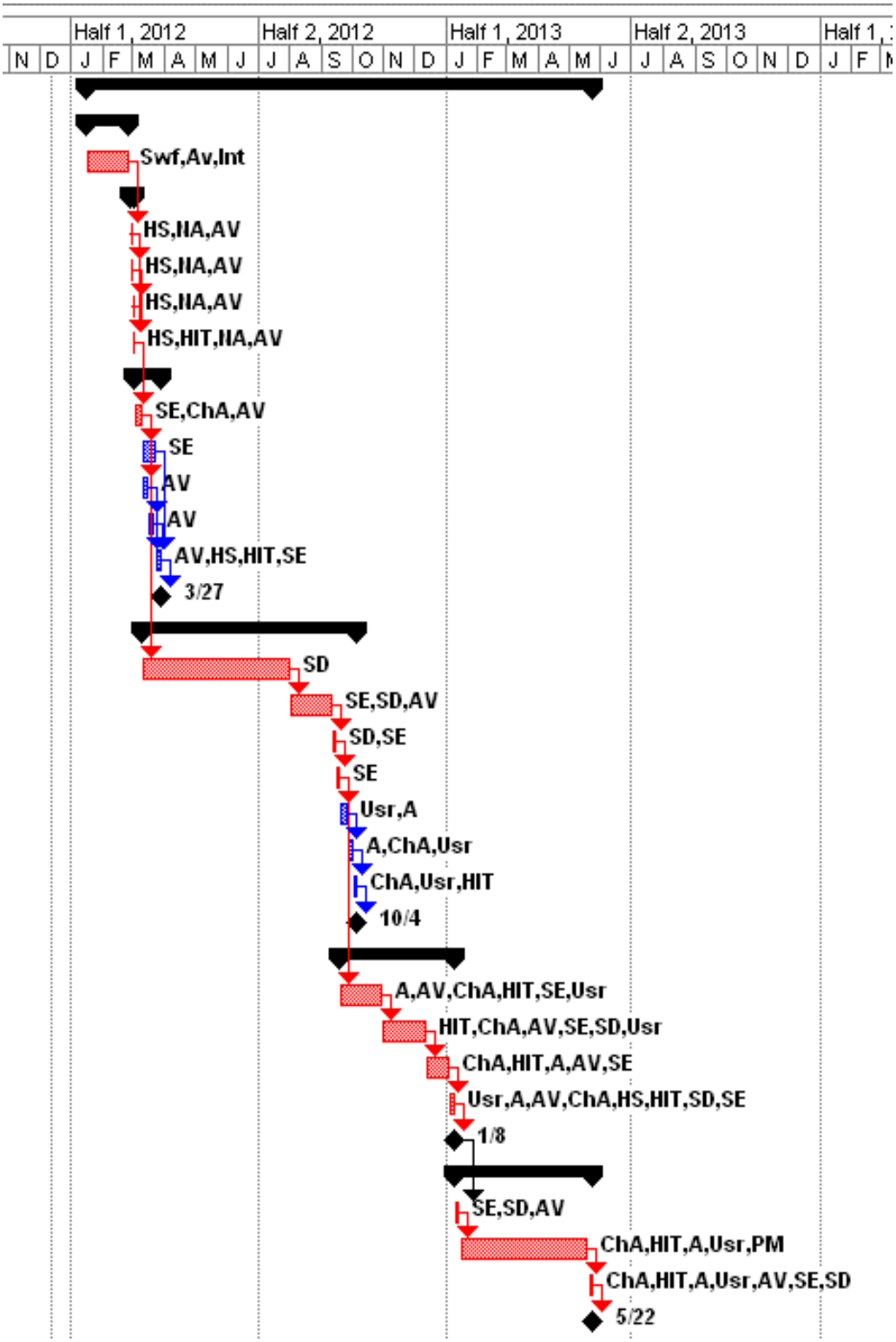
Table no.1

ID	Task Name	Duration	Start	Finish
1	**1 Open Source Platform**	**347 days**	**Mon 1/16/12**	**Wed 5/22/13**
2	**1.1 Purchasing a software package to automate data collection and processing activities**	**30 days**	**Mon 1/16/12**	**Fri 2/24/12**
3	1.1.1 Purchase software engine, Internet module and audio/video module	30 days	Mon 1/16/12	Fri 2/24/12
4	**1.2 Create a hardware architecture to implement the integrated software solution**	**4 days**	**Mon 2/27/12**	**Thu 3/1/12**
5	1.2.1 Configure a production hardware environment and install the basic software	1 day	Mon 2/27/12	Mon 2/27/12
6	1.2.2 Configure a nonproduction hardware environment and install the basic software	1 day	Tue 2/28/12	Tue 2/28/12
7	1.2.3 Configure a development hardware environment and install the basic software	1 day	Wed 2/29/12	Wed 2/29/12
8	1.2.4 Testing servers operation	1 day	Thu 3/1/12	Thu 3/1/12
9	**1.3 Install the software package on the nonproduction environment**	**18 days**	**Fri 3/2/12**	**Tue 3/27/12**
10	1.3.1 Install the software engine, the Internet module and the radio/Tv module	5 days	Fri 3/2/12	Thu 3/8/12
11	1.3.2 Configure the Internet data capture module with at least 200 websites	10 days	Fri 3/9/12	Thu 3/22/12
12	1.3.3 Configure Radio and TV recorder module in order to: capture sound and images	5 days	Fri 3/9/12	Thu 3/15/12
13	1.3.4 Create a schedule for capturing all the 20 TV channels and 4 radio channels	3 days	Fri 3/16/12	Tue 3/20/12
14	1.3.5 Testing the software solution functionality based on data accuracy	3 days	Fri 3/23/12	Tue 3/27/12
15	1.3.6 Status Report	0 days	Tue 3/27/12	Tue 3/27/12
16	**1.4 Develop a software platform to access and process data automated collected**	**148 days**	**Fri 3/9/12**	**Thu 10/4/12**
17	1.4.1 Develop a software platform with multiple functionalities (categorize, filter, retrieve and process data)	100 days	Fri 3/9/12	Mon 7/30/12
18	1.4.2 Integrate the software platform with the collecting modules	30 days	Tue 7/31/12	Mon 9/10/12
19	1.4.3 Deploy the software solution on the nonproduction environment:	3 days	Tue 9/11/12	Thu 9/13/12
20	1.4.4 Create accounts for OSC's users	2 days	Fri 9/14/12	Mon 9/17/12
21	1.4.5 Test the functionalities of the solution and provide feedback	5 days	Tue 9/18/12	Mon 9/24/12
22	1.4.6 Analyze feedback and correct the errors that could appear during the test;	5 days	Tue 9/25/12	Mon 10/1/12
23	1.4.7 Issue a status report the software solution operabilites	3 days	Tue 10/2/12	Thu 10/4/12
24	1.4.8 Status Report	0 days	Thu 10/4/12	Thu 10/4/12
25	**1.5 Provides qualified resources for the operation software platform**	**77 days**	**Tue 9/18/12**	**Tue 1/8/13**
26	1.5.1 Elaborate a methodology for the software platform	30 days	Tue 9/18/12	Mon 10/29/12
27	1.5.2 Create a new work flow based on the methodology	30 days	Tue 10/30/12	Mon 12/10/12
28	1.5.3 Provide users training for the software platform according to the methodology	14 days	Tue 12/11/12	Thu 1/3/13
29	1.5.4 Acceptance test	3 days	Fri 1/4/13	Tue 1/8/13
30	1.5.5 Status Report	0 days	Tue 1/8/13	Tue 1/8/13
31	**1.6 Implement the software solution and the new work flow on the production environment.**	**96 days**	**Wed 1/9/13**	**Wed 5/22/13**
32	1.6.1 Deploy of the software solution on the production environment	3 days	Wed 1/9/13	Fri 1/11/13
33	1.6.2 Implement the new work flow for OSC users	90 days	Mon 1/14/13	Fri 5/17/13
34	1.6.3 Issue a status report regarding the software platform's operationalization	3 days	Mon 5/20/13	Wed 5/22/13
35	1.6.4 Overview Report	0 days	Wed 5/22/13	Wed 5/22/13

3. TIME MANAGEMENT PLAN (GANTT CHART)

Microsoft Project (MP) is to be used to track the project progress. The time management and assigned resources (Gantt chart) are to be found in Chart no. 1.

Chart no. 1



4. PROJECT TEAM, ROLES AND RESPONSIBILITIES

The Table no. 3.conatains the project staff and their general responsibilities

Table no. 3.

Role	Responsibilities	Participant(s)
Project Sponsor	▪ Ultimate decision-maker and tie-breaker ▪ Provide project oversight and guidance ▪ Review/approve some project elements	RIS Deputy Director
Steering Committee	▪ Commits department resources ▪ Approves major funding and resource allocation strategies, and significant changes to funding/resource allocation ▪ Resolves conflicts and issues ▪ Provides direction to the Project Manager ▪ Review project deliverables	Chief of OSC Deputy Chief of OSC Head of IT Department Chief Analysts
Project Manager (PM)	▪ Manages project in accordance to the project plan ▪ Serves as liaison to the Steering Committee ▪ Receive guidance from Steering Committee ▪ Provide overall project direction ▪ Direct/lead team members toward project objectives ▪ Handle problem resolution ▪ Manages the project budget	Deputy Chief of OSC
Project team	▪ Understand the user needs and business processes of their area ▪ Communicate project goals, status and progress throughout the project to personnel in their area ▪ Review and approve project deliverables ▪ Creates or helps create work products ▪ Provide knowledge and recommendations ▪ Helps identify and remove project barriers ▪ Assure quality of products that will meet the project goals and objectives ▪ Identify risks and issues and help in resolutions	Head Of IT Department Chief analyst (ChA); 3 Network Administrators (NA); 2 Hardware Specialists (HS); 3 Software Engineers (SE); 2 Audio/Video Specialists (AV); 3 Software Developers (SD); 10 Analysts (A); 50 Users (Usr).

Regarding the project the following table contains the main activities and the responsibilities assigned accordingly:

Table no. 4.

Activity	Deputy Director	Steering Committee			
		Chief of OSC	Project Manager	Head of IT Department	Chief analyst
1.1 Purchasing a software package to automate data collection and processing activities	6	5	3	1	
1.2 Create a hardware architecture to implement the integrated software solution		6	5	1	
1.3 Install the software package on the nonproduction environment		6	5	1	
1.4 Develop a software platform to access and process data automated collected		6	2	1	4
1.5 Provides qualified resources for the operation software platform	6	5	3	1	1
1.6 Implement the software solution and the new work flow on the production environment.	6	5	3	1	1

Legend: 1- actual responsibility; 2 – general supervision; 3 – must be consulted; 4 – may be consulted; 5 – must be notified; 6 – approval authority

4.0. Issue Management

The information contained within the Project Plan will likely change as the project progresses. While change is both certain and required, it is important to note that any changes to the Project Plan will impact at least one of three critical success factors: **Available Time**, **Available Resources** (Financial, Personnel), or **Project Quality**. The decision by which to make modifications to the Project Plan (including project scope and resources) should be coordinated using the following process:

Step 1: As soon as a change which impacts project scope, schedule, staffing or spending is identified, the Project Manager will document the issue.

Step 2: The Project Manager will review the change and determine the associated impact to the project and will forward the issue, along with a recommendation, to the Steering Committee for review and decision.

Step 3: Upon receipt, the Steering Committee should reach a consensus opinion on whether to approve, reject or modify the request based upon the Project Manager's recommendation and their own judgment. Should the Steering Committee be unable to reach consensus on the approval or denial of a change, the issue will be forwarded to the Project Sponsor, with a written summation of the issue, for ultimate resolution.

Step 4: If required under the decision matrix or due to a lack of consensus, the Project Sponsor shall review the issue(s) and render a final decision on the approval or denial of a change.

Step 5: Following an approval or denial (by the Steering Committee or Project Sponsor), the Project Manager will notify the original requestor of the action taken.

4.0. Project Management Deliverables:

Microsoft Project (MP) is to be used to track the project progress. The following standard project management deliverables will be prepared:

- **Project Charter** – This document is a statement of intent, describing what the project is to achieve and how the results will be realized. This will be a "living" document and will be amended to reflect detail as the project progresses;
- **Internal Project Performance Reports** – Regular formal communication of the status of the project. Information included on scope, budget, resources, schedule, etc. MP Gantt charts will be included;
- **Stakeholder Project Status Reports** – Regular status reports to the stakeholders and Steering Committee will coincide with completion dates for major milestones; other updates may be scheduled if appropriate. These will be provided as either a presentation in a meeting or a written report, as per the stakeholders' preference.
- **Project Review** – This will be an overall review of the performance of the project. Issues covered will include (general evaluation by Sponsor, results and accomplishments, management, performance of staffing, costs, schedule, success factors, risks and issues, obstacles and challenges, lessons learned, suggestions for future project management, outstanding issues).

5. COMMUNICATION MANAGEMENT

The following is a list of communication events that are established for this project:

Monthly Status Reports. The Project Manager shall provide monthly written status reports to the Steering Committee. The reports shall include the following information tracked against the Project Plan:

- Summary of tasks completed in previous month;
- Summary of tasks scheduled for completion in the next month;
- Summary of issue status and resolutions;

Monthly Steering Committee Meeting. These status meetings are held at least once per month and are coordinated by the Project Manager. Every member of the Steering Committee participates in the meeting.

Bi-Monthly Project Team Status Meeting. These status meetings are held every other month. Every member of the Project Team will be invited to participate in the meeting.

When needed, technical team will communicate with Project Manager on administrative/ progress issues, task progress, hours, problems, scheduling, etc.

The Project Manager, Head of IT Dept. and Chief Analyst will work closely together, updating each other on issues as well as reporting to Sponsor.

The Project Manager is responsible for providing status reports to the stakeholders and Steering Committee.

Project Milestones

This is an outline of major milestones and timelines for the project.

Table no. 5.

Milestone	Completion Date
Status Report including summary of tasks completed, problems, schedule for next tasks	27th of March, 2012
Status Report including summary of tasks completed, schedule for next tasks	04th of October, 2012
Status Report including the results of the acceptance test and schedule for the next tasks	08th of January, 2012
Overview Report reflecting the objectives achieved and analysis of the OSC productivity	22nd of May, 2013

6. PROJECT COST MANAGEMENT

A breakdown of the project financial costs and resources pool is listed in the table below.

The project cost is to be supported by the Service budget.

Table no. 6.

Resource type	Name	Quantity	Unit cost (lei)	Total cost (lei)	Total (lei)
Human resource	PM	1	4.500	4.500	190.000
	ChA	1	3.500	3.500	
	HIT	1	3.500	3.500	
	A	10	2.800	28.000	
	NA	3	2.500	7.500	
	HS	2	2.500	5.000	
	SE	3	3.000	9.000	
	AV	2	2.500	5.000	
	SD	3	3.000	9.000	
	Users	50	2.300	115.000	
Materials	Software Engine	1	1.305.000	1.305.000	2.175.000
	Internet module	1	217.500	217.500	
	Audio/ Video Module	1	652.500	652.500	
Services	Maintenance Software Engine	15% of acquisition cost	195.750	185.750	316.250
	Maintenance Internet module	15% of acquisition cost	32.625	32.625	
	Maintenance Audio/ Video Module	15% of acquisition cost	97.875	97.875	
Overall costs		10% of the estimated cost			268.125
TOTAL					2.949.375

0. QUALITY MANAGEMENT

Each quality factor, in Table no.7, is to be passed the acceptance criteria and the results are to be approved by the Steering Committee

Table no. 7.

Quality Factor	Acceptance criteria	Measurement	Activities that generates the factor
Tests and debug reports	- The software installed on the servers should run properly; - The tests results will be analysed and corrected;	- Performing loading/ functional tests and checking the log files; - components must be in accordance to technical requirements	1.2.4
Automation process	The human assistance is no longer require in the collection process;	- Data collected from Internet appears in repository according to the users requirements; - The audio /video files will be created in the storage area according to the configuration parameters.	1.3.5
Internet Data Accuracy	Keeping the references of the data collected from the Internet and compare it with the original	The collected data will be compared to the original in terms of content, title, date, summary etc.	1.3.5
Accessibility	Friendly users interface for access and process the data.	All the user should access data within repository according to the rights assigned	1.4.7
Interoperability	All the modules of the software solution are interconnected according to the security protocols	All the data will be accessed using the software platform	1.4.5
Users efficiency and performance	Users skills	Training according to the methodology	1.5.3
Improve efficiency and effectiveness	- The software platform will increase the amount of data collected and the efficiency of the process; - Implement a new workflow.	- The application will return a report containing the number of documents collected; - users are able to search and retrieve information in seconds; - users are able to access the data according to their role; - all data will be indexed and categorized automatically; - The audio /video programs will be recorded according to the schedule, completely replacing the human activity; - Elaborate a new workflow	1.5.4 1.6.2

Measure of success

The project's success will be based on how well the following conditions were met:

- Milestones completed on schedule (or as modified by Change Requests);
- Project on budget;
- Project on time;
- System has passed acceptance testing.

0. RISK MANAGEMENT

The **Risk Assessment** will be continuously monitored and updated throughout the life of the project, with monthly assessments included in the status report and open to amendment by the Project Manager.

Table no. 8.

Risk Name	Description	Impact on Project	Severity (H,M,L)	Probability (H,M,L)	Risk Rating*	Mitigation Strategy
Integration gaps	The system is not working very well …till the finally settings	- supplementary costs for hardware and software upgrades - delays	H	L	M	Not overlap SD holidays
Undelivered products	Products must be delivered in expected time	Project time delay	H	M	H	Contact the producer for emergency delivery
Personnel fluctuation	Trained users being replaced by new users	- new sessions for personnel training - more help desk required	L	L	L	Improve HR management
Team members unreachable	Other regular duties of team members interfering with time on project	Project time delay	H	M	H	Allocate human resources only for the tasks assigned in project
Lack of specialists	The persons involved in system administratio	- supplementary costs for training new personnel - delays	H	H	H	Involve more then one specialist in

	n left the organization	- the project is compromised				project; Hired more specialists

* HxH = H; MxL = M; HxM = H; MxM = M; HxL = M; LxL = L

Critical Project Barriers

Unlike risks, critical project barriers are insurmountable issues that can be destructive to a project's initiative. In this project, the following are possible critical barriers:

- Removal of project funding
- Natural disasters or acts of war

Should any of these events occur, the Project Plan would become invalid.

0. SIGNOFF PROCEDURES

The project will be complete when all items in the scope have been implemented and passed acceptance testing prepared by analysts and user representatives, approved by the Steering Committee.

At the end of the project, a meeting will be held with the Project Manager and Project Sponsor to discuss the results of the project, obtains formal sign-off, and identifies any next steps.

SET – UP A COMPANY

TO COUNCIL

START – UP BUSINISSES

CAPT. Eugen DRAGAN

1. BUSINESS CASE

The necessary funds for set up a company come from the associations company, depending on the percentages of company owned.

Purpose:

The name of the company I want to set-up is D.E. Solution Consulting (D.E.S.C.) aims to offer comprehensive consulting services. The company will focus on providing personal and specialized services to meet each client's specific needs.

D.E. Solution Consulting (D.E.S.C.) is a company, which will focus on providing wide range of business consulting services for startups and other companies in the early stages of their operations

The company also aims to provide consulting services for ethnic groups and persons established in disadvantaged zones

D.E.S.C is a team of five Business Consultants, each consultant specializes in a particular discipline, including finance, sales and marketing, technology (project manager – Eugen Dragan), management (general manager) and human resources.

The company is focused to satisfy the needs of young entrepreneurs and business people from different ethnic groups who wishing to develop their business. With a core staff of experienced professionals and a team approach to most consulting projects, the company will be able to offer service quality as required by the market.

The company offers a list of services including a business and marketing plan preparation, financial search and procurement, management development, human resources advising, and etc.

Start-up services include business plan preparation, marketing plan preparation, and financing search and procurement. Ongoing services include business plan updates, marketing plan updates, search and procurement of additional rounds of financing, management development, e-commerce consulting services, operational advising, and human resources advising.

DESC's keys to success include:

- a group of professionals with a broad range of specialty areas that complement each other.

- a high level of experience in these specialty areas.
- a team approach on most consulting projects.
- many business contacts among the consultant group.

2. SCOPE MANAGEMENT PLAN

2.1. Goal

The goal of this project is:

- set – up a company to council start – up businesses

- providing consultancy for young entrepreneurs and business people from different ethnic groups who wish to develop their business

Start date: **16.02.2012** / End date: **16.06.2012**

2.2. Objectives

1. establishing the company;
2. acquisition the I T & C equipment;
3. contracting accounting and human resources services;
4. contracting marketing and advertising.

2.4. Work Breakdown Structure (WBS)

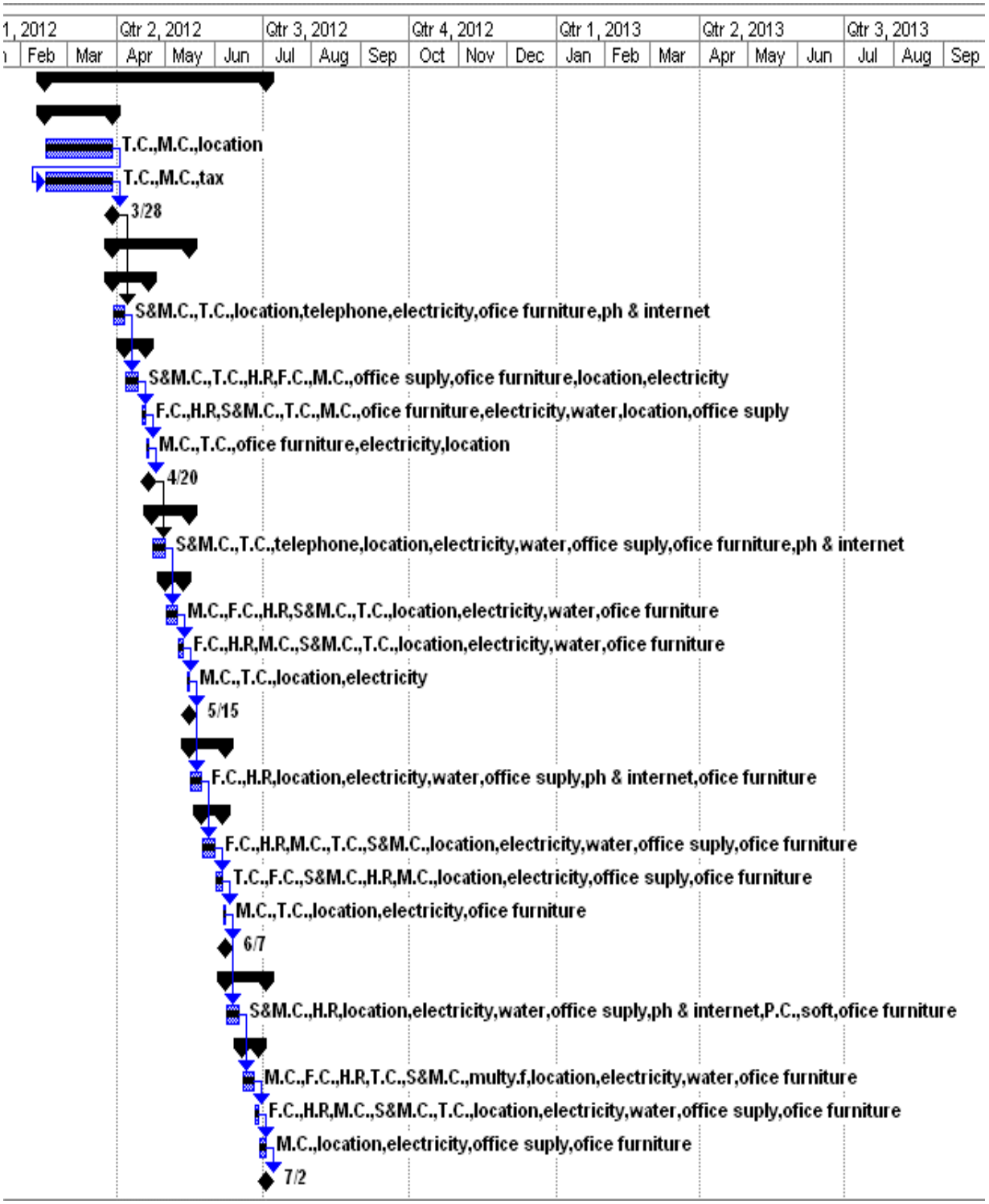
Table. 1

ID	Task Name	Duration	Start	Finish	Resource Names
1	**1 SET – UP A COMPANY TO COUNCIL START – UP BUSINESSES**	**98 days**	**Thu 2/16/12**	**Mon 7/2/12**	
2	**1.1 establishing the company**	**30 days**	**Thu 2/16/12**	**Wed 3/28/12**	**project manager**
3	1.1.1 rent a location for headquarters company	30 days	Thu 2/16/12	Wed 3/28/12	project manager[50%],general manager[50%],the location[1]
4	1.1.2 the fulfillment of all aspects of legal formalities for establishing the company	30 days	Thu 2/16/12	Wed 3/28/12	project manager[50%],general manager[50%],taxes[1]
5	1.1.3 status raport	0 days	Wed 3/28/12	Wed 3/28/12	project manager
6	**1.2 acquisition the I T & C equipment**	**34 days**	**Thu 3/29/12**	**Tue 5/15/12**	**sale and marketing consultant**
7	**1.2.1 acquisition hardware equipment**	**17 days**	**Thu 3/29/12**	**Fri 4/20/12**	**sale and marketing consultant**
8	1.2.1.1 request for offers of hardware and office equipment firms	6 days	Thu 3/29/12	Thu 4/5/12	sale and marketing consultant[50%],project manager[50%],the location[0.2],Telephone[0.2],electricity[0.2],office furniture[0.2],phone & internet services[0.2]
9	**1.2.1.2 selection of tenders submitted by the companies contacted**	**9 days**	**Fri 4/6/12**	**Wed 4/18/12**	
10	1.2.1.2.1 analyzing the bids together with associations	6 days	Fri 4/6/12	Fri 4/13/12	sale and marketing consultant[50%],project manager[50%],H.R. consultant [50%],finance consultant[50%],general manager[50%],office supplies[0.2],office furr
11	1.2.1.2.2 select with business associates the best quality-price report	3 days	Mon 4/16/12	Wed 4/18/12	finance consultant[50%],H.R. consultant [50%],sale and marketing consultant[50%],project manager[50%],general manager[50%],office furniture[0.2],electricity[
12	1.2.1.3 signing the contract with the company selected	2 days	Thu 4/19/12	Fri 4/20/12	general manager[50%],project manager[50%],office furniture[0.2],electricity[0.2],the location[0.2]
13	1.2.2 status raport	0 days	Fri 4/20/12	Fri 4/20/12	
14	**1.2.3 acquisition software equipment**	**17 days**	**Mon 4/23/12**	**Tue 5/15/12**	**sale and marketing consultant**
15	1.2.3.1 request for offers of software and office equipment	6 days	Mon 4/23/12	Mon 4/30/12	sale and marketing consultant[50%],project manager[50%],Telephone[0.2],the location[0.2],electricity[0.2],water supply[0.2],office supplies[0.2],office furniture[
16	**1.2.3.2 selection of tenders submitted by the companies contacted**	**9 days**	**Tue 5/1/12**	**Fri 5/11/12**	
17	1.2.3.2.1 analyzing the bids together with associations	6 days	Tue 5/1/12	Tue 5/8/12	general manager[50%],finance consultant[50%],H.R. consultant [50%],sale and marketing consultant[50%],project manager[50%],the location[0.2],electricity[0.2
18	1.2.3.2.2 select with business associates the best quality-price report	3 days	Wed 5/9/12	Fri 5/11/12	finance consultant[50%],H.R. consultant [50%],general manager[50%],sale and marketing consultant[50%],project manager[50%],the location[0.2],electricity[0.2
19	1.2.3.3 signing the contract with the company selected	2 days	Mon 5/14/12	Tue 5/15/12	general manager[50%],project manager[50%],the location[0.2],electricity[0.2]
20	1.2.4 status raport	0 days	Tue 5/15/12	Tue 5/15/12	sale and marketing consultant
21	**1.3 contracting accounting services and human resouces**	**17 days**	**Wed 5/16/12**	**Thu 6/7/12**	
22	1.3.1 request for offers of specialized firms	6 days	Wed 5/16/12	Wed 5/23/12	finance consultant[50%],H.R. consultant [50%],the location[0.2],electricity[0.2],water supply[0.2],office supplies[0.2],phone & internet services[0.2],office furnitu
23	**1.3.2 selection of tenders submitted by the companies contacted**	**9 days**	**Thu 5/24/12**	**Tue 6/5/12**	
24	1.3.2.1 analyzing the bids together with associations	6 days	Thu 5/24/12	Thu 5/31/12	finance consultant[50%],H.R. consultant [50%],general manager[50%],project manager[50%],sale and marketing consultant[50%],the location[0.2],electricity[0.2
25	1.3.2.2 select with business associates the best quality-price report	3 days	Fri 6/1/12	Tue 6/5/12	project manager[50%],finance consultant[50%],sale and marketing consultant[50%],H.R. consultant [50%],general manager[50%],the location[0.2],electricity[0.2
26	1.3.3 . purchasing services offer by company selected	2 days	Wed 6/6/12	Thu 6/7/12	general manager[50%],project manager[50%],the location[0.2],electricity[0.2],office furniture[0.2]
27	1.3.4 status raport	0 days	Thu 6/7/12	Thu 6/7/12	finance consultant,H.R. consultant [50%],computers[0]
28	**1.4 marketing and advertising**	**17 days**	**Fri 6/8/12**	**Mon 7/2/12**	
29	1.4.1 request for offers of specialized firms	6 days	Fri 6/8/12	Fri 6/15/12	sale and marketing consultant[50%],H.R. consultant [50%],the location[0.2],electricity[0.2],water supply[0.2],office supplies[0.2],phone & internet services[0.2],c
30	**1.4.2 selection of tenders submitted by the companies contacted**	**9 days**	**Mon 6/18/12**	**Thu 6/28/12**	
31	1.4.2.1 analyzing the bids together with associations	6 days	Mon 6/18/12	Mon 6/25/12	general manager[50%],finance consultant[50%],H.R. consultant [50%],project manager[50%],sale and marketing consultant[50%],multifunctional[0.2],the locatior
32	1.4.2.2 select with business associates the best quality-price report	3 days	Tue 6/26/12	Thu 6/28/12	finance consultant[50%],H.R. consultant [50%],general manager[50%],sale and marketing consultant[50%],project manager[50%],the location[0.2],electricity[0.2
33	1.4.3 purchasing services offer by company selected	2 days	Fri 6/29/12	Mon 7/2/12	general manager,the location[0.2],electricity[0.2],office supplies[0.2],office furniture[0.2]
34	1.4.4 staus raport	0 days	Mon 7/2/12	Mon 7/2/12	sale and marketing consultant

3. TIME MANAGEMENT PLAN (Gantt Chart)

Start date Thu 2/16/12 – end date Mon 7/2/12

Microsoft Project is to be used to track the project progress. The time management and assigned resources (Gantt Chart) are to be found in the next chart



Milestone	Tape	Completion Date
Status Report including summary of tasks completed, problems, schedule for next tasks	1.1. establishing the company;	28th of March, 2012
Status Report including summary of tasks completed, schedule for next tasks	1.2.1 acquisition hardware equipment	20th of April, 2012
Status Report including summary of tasks completed, schedule for next tasks	1.2.3 acquisition software equipment	15th of May 2012
Status Report including summary of tasks completed, schedule for next tasks	1.3 contracting accounting and human resources services;	06th of June, 2012
Status Report including summary of tasks completed, schedule for next tasks	1.4 contracting marketing and advertising.	02nd of July, 2012

4. HUMAN RESOURCE MANAGEMENT

H. R. involved in the project: - General manager: management consultant

- Project manager: technology consultant
- The project team: - finance consultant
- sale and marketing consultant
- H.R. consultant

Each stage of the project is approved by the general manager and supervised by project manager (table. 2)

To eliminate possible risks of exceeding the budget and / or time spent in certain stages of the project will be consulted financial consultant.

Table 2. Linear Responsibility Chart of Project Management Relationships

Activity	General manager	Project manager	finance consultant	sale and marketing consultant	H.R. consultant
establishing the company	6	1	3	4	4
acquisition the I T & C equipment	6	2	3	1	4
contracting accounting services and human resources	6	2	1	4	1
marketing and advertising	6	2	3	1	4

***Legend**:*

1- actual responsibility;
2 – general supervision;
3- must be consulted;
4 – may be consulted;
5- must be notified;
6 – approval authority

5. COMUNICATION MANAGEMENT

Communication within the project team should be made weekly and encouraged the expression of each project team member. By this way you can prevent any deviations from the objectives and results, at an early stage.

Table. 3. Communication matrix:

Project stage	Target audience	Person(s) to convey the message	When the message is conveyed	Format of a message	Message content
establishing the company	- all project members	- General manager	every week	presentation	- project phase - timeliness -state spending - framing budget
acquisition the I T & C equipment	- all project members	- General manager	every week	presentation	- project phase - timeliness -state spending - framing budget
contracting accounting services and human resources	- all project members	- General manager	every week	presentation	- project phase - timeliness -state spending - framing budget
marketing and advertising	- all project members	- General manager	every week	presentation	- project phase - timeliness -state spending - framing budget

6. PROJECT COST MANAGEMENT

7.

Resource type	Name	Number	Days of work	Total hours of work	Acquisition cost/ (ron)	estimated current cost (ron)/month	Estimated total cost/16.02.-16.06.2012
A	**B**	**C**	**D**	**E**	**F**	**G**	**I=F+G*4**
skilled resources /human resource	project manager	1	96	768	0 (investors)	0 (investors)	
	finance consultant	1	30	240			
	sale and marketing consultant	1	60	480			
	H.R. consultant	1	30	240			
Equipment	P.C.	6			8400	0	8400
	multifunctional	1			400	50	600
	fax	1			300		300
	Telephone	2			200	0	200
Materials	rent area	1				1200	4800
	electricity	100 kw hours				500	2000
	water supply	10 mc				100	400
	office supplies	1				100	400
	phone & internet services	1				100	400
	software	6			9600		9600
	air conditioner	4			4000		4000
	office furniture	6			6000		6000
					28900	***2050***	***37100***

The total estimated cost for this project is 37.100 ron and you will see the detailed costs in the following table

Table. 4. Resource pool description and cost management

7. PROJECT QUALITY MANAGEMENT

INTRODUCTION

The goal of this project is set – up a company to council start – up businesses.

D.E. Solution Consulting (D.E.S.C.) is a company, which will focus on providing wide range of business consulting services to other startups and companies in early stages of their operations.

The company is focused on serving the comprehensive needs of businesses in the full range of the business cycle. With a core staff of experienced professionals and a team approach to most consulting projects, the company will be able to offer service quality as required by the market..

The company offers a list of services including a business and marketing plan preparation, financial search and procurement, management development, human resources advising, and etc.

7.1 Project Quality Definition

Quality Management is determined by previously established deadlines and costs. In this sense the project manager must be involved 100% in project. Each stage will be monitored by the project manager to meet establish deadlines and cost

Responsible person: the project manager

7.2. KEY QUALITY CONCEPTS EXPLANANTION

Efficiency - The extent to which the project ***"SET – UP A COMPANY TO COUNCIL START – UP BUSINISSES"*** performs its intended function with a minimum consumption of computing resources

Correctness - The extent to which the project ***"SET – UP A COMPANY TO COUNCIL START – UP BUSINISSES"*** meets the specifications and objectives planned

Resource Effectiveness - The extent to which the optimal resources are assigned to ***"SET – UP A COMPANY TO COUNCIL START – UP BUSINISSES"*** to ensure quality, on-time delivery.

7.3. List of Deliverables and acceptance criteria

- location for headquarters company

  criteria:

  - the location must be an apartment whit 4 rooms

    - the apartment must be on the ground floor of a building or one of the lower floors

    - the apartment must be in a central area

- legal formalities for establishing the company

  criteria:

    - obtaining the necessary documents request by O.N.R.C.

    - compliance deadline for submission of documents required to obtain authorization

- acquisition hardware equipment

  criteria: compliance legal and contractual provisions and specific requirements

- acquisition software equipment

  criteria: compliance legal and contractual provisions and specific requirements

- accounting and human resources company

  criteria: compliance legal and contractual provisions

- marketing and advertising company

  criteria: compliance legal and contractual provisions

7.4. Quality planning and control

Activity and responsible persona

- establishing the company: responsible persona is project manager
- acquisition the I T & C equipment: responsible persona is sale and marketing consultant
- contracting accounting services and human resources: responsible persona is finance consultant and H.R. consultant
- marketing and advertising: responsible persona is sale and marketing consultant

8. PROJECT RISK MANAGEMENT

The following table lists the risks that have been identified for this project, the impact (insignificant, minor, significant, major, critical), the probability (very unlikely, slight, feasible, likely, very likely), and for any risks that are High impact and/or High probability, a contingency plan. These risks will be continually monitored and updated throughout the life of this project.

Tabel.4. Risk

Risk factor	Risk description	Likelihood of occurrence	Severity of Impact	Rating	Strategy to counter risk
Time	late issuance of operating license	**2**	**5**	**10**	Mention this aspect in the project
	errors in time estimation of the project determined by breach of contract by service firms	**2**	**4**	**8**	Establish penalties for late delivery of required services
Communication	difference between the request and provide service	**4**	**2**	**8**	In the Contract are will detail the services required
					cancellation of the contract
	difference between the products requested and provided	**3**	**3**	**9**	in the contract will mention specification required
					cancellation of the contract
Budget Size	exceeded budget because of the inflation	**3**	**3**	**9**	allocation a fund of 10% from the project

Likelihood of Occurrence	Severity of Impact
1- Very unlikely (hasn't occurred before)	1 - Insignificant (have no effect)
2 - Slight (rarely occurs)	2 - Minor (little effect)
3 - Feasible (possible, but not common)	3 - Significant (may pose a problem)
4 - Likely (has before, will again)	4 - Major (Will pose a problem)
5 - Very Likely (occurs frequently)	5 - Critical (Immediate action required)

Rating	Risk
1…..8	Low risk
9	Medium risk
10…25	High risk

Reorganizing Education and Psychosocial Assistance Department according to the O.M.J. 2199/C/15.11.2011

Bucharest – Rahova Penitentiary

I.P. Luminita - Mihaela MEDELET

1. Business Case

Until November 2011, the legal conditions for organizing and developing educational, cultural, therapeutically, psychological counselling and social assistance activities in a penitentiary were established by L. 275/2006, but only regarding the general rights and conditions of security for different regimes of executing the sentences. The main goal of the penitentiary institution is to provide safety for the society by keeping closed the people who represent a danger for others (offering custody), but, in the same time, according to the European Union Recommendations, the staff is suppose to bring in a "humanity" approach on relating with the inmates.

The penitentiary system is a public usefulness service that must be administered in the name of humanism and justice. The society must understand that the persons condemned to freedom deprive punishments are not the propriety of the penitentiary, and the chance to reintegrate them is a chance that the community awards equally to itself.

The main aim on starting this paper work is to elaborate a management project for Educational and Psychosocial Assistance Department that will reorganize and provide a good integration of the new legal framework (O.M.J. 2199/C/15.11.2011), and to consolidate and bring efficiency to these Department activities, from the perspective of a multidisciplinary team.

The main needs we are starting from are:

- A realistic Activity Analysis for 2011 (quantitative and qualitative);
- A new Activity Plan for 2012 according to the actual legal framework;
- A new Activity Offer for the inmates;
- A good informational campaign, through which we can promote the new information and criteria for taking part to activities (flayers, articles in the newsletters, informational clips on the TV station with internal circuit etc.);
- Adequately qualified staff on the quarantine section that can assure information for all the new entries – detainees, by developing INSTAD Program (Adaptation to the custody conditions program during the first 21 days of detention);
- A good campaign to promote the new legal framework and the principles of the National Strategy for Social Reintegration of the inmates 2010 – 2013 to the social partners from the community;
- The need for actualization the old Collaboration Protocols with the partners from the community and developing new collaborations.

2. Scope Management Plan

2.1. Goal

Reorganization of Education and Psychosocial Assistance Department Activities according to O.M.J. 2199/C/15.11.2011 – *"The Framework regulation concerning the conditions of organizing and developing educational, cultural, therapeutically, psychological counselling and social assistance activities organized in the penitentiaries"*.

2.2. Objectives

Objective No: 1. Disseminate the opportunities of the new legal conditions

Objective No: 2. Elaborate a new Activity Plan for Educational and Psychosocial Assistance Department – for 2012

Objective No: 3. Elaborate a new Activity Offer for the inmates for 2012

Objective No: 4. Promote the new Activity Offer and the Selection Criteria

Objective No: 5. Promote the new legal framework and the ideas of the National Strategy for Social Reintegration of the inmates 2010 – 2013 to the social partners from the community

2.3. Work Breakdown Structure (WBS)

ID	Task Name	Duration	Start	Finish
1	**1 Reorganizing Education and Psychosocial Assistance Department according to the O.M.J. 2199/C/15.11.2011**	**42 days**	**Mon 12/19/11**	**Tue 2/14/12**
2	**1.1 Disseminate the opportunities of the new legal conditions - O.M.J. 2199/C/15.11.2011**	**4 days**	**Mon 12/19/11**	**Thu 12/22/11**
3	**1.1.1 During the weekly department meeting, debate the opportunities of the new legal conditions**	**2 days**	**Mon 12/19/11**	**Tue 12/20/11**
4	1.1.1.1 Debate challenges we met in the new legal framework	1 day	Mon 12/19/11	Mon 12/19/11
5	1.1.1.2 Sum up the opportunities and measurements we have to take in consideration	1 day	Tue 12/20/11	Tue 12/20/11
6	1.1.2 Discuss the opportunities in the multidisciplinary team in order to obtain a Measurements Plan on Implementing O.M.J/ 2199/C/15.11.2011	1 day	Wed 12/21/11	Wed 12/21/11
7	**1.1.3 Sustain the real solutions and opportunities on the Management Committee of the penitentiary**	**2 days**	**Wed 12/21/11**	**Thu 12/22/11**
8	1.1.3.1 Send the Measurements Plan to the secretary of the Management Committee to be included on the meeting agenda	1 day	Wed 12/21/11	Wed 12/21/11
9	1.1.3.2 Sustain the main points and changes and present the Measurements Plan	1 day	Thu 12/22/11	Thu 12/22/11
10	**1.2 Elaborate a new Activity Plan EPAD for 2012**	**20 days**	**Mon 12/19/11**	**Fri 1/13/12**
11	**1.2.1 Realize an Activity Analyze for 2011**	**15 days**	**Mon 12/19/11**	**Fri 1/6/12**
12	1.2.1.1 Collect data about educational and psychosocial assistance activities already developed during 2011	10 days	Mon 12/19/11	Fri 12/30/11
13	1.2.1.2 Complete the quantity analyze obtained with the quality approach of the activities and programs developed	5 days	Mon 1/2/12	Fri 1/6/12
14	**1.2.2 Set up a draft of Activity Plan EPAD for 2012**	**2 days**	**Mon 1/9/12**	**Tue 1/10/12**
15	1.2.2.1 Discuss the draft of the Activity Plan in the weekly department meetings	1 day	Mon 1/9/12	Mon 1/9/12
16	1.2.2.2 Discuss the draft of Activity Plan EPAD for 2012 into the multidisciplinary team meeting.	1 day	Tue 1/10/12	Tue 1/10/12
17	1.2.3 Elaborate and list the Activity Plan EPAD for 2012 for the approval and registration	3 days	Wed 1/11/12	Fri 1/13/12
18	**1.3 Elaborate a new Activity Offer for the inmates for 2012**	**7 days**	**Mon 1/16/12**	**Tue 1/24/12**
19	1.3.1 Starting from the Activity Plan EPAD for 2012, set up the list of the activities and programs	4 days	Mon 1/16/12	Thu 1/19/12
20	1.3.2 List the activities and programs established to be ruled in one specific section of detention in a Section Activity Offer	1 day	Fri 1/20/12	Fri 1/20/12
21	1.3.3 Sum up all the Section Activity Offers from the sections into a Activity Offer for the whole unit	1 day	Mon 1/23/12	Mon 1/23/12
22	1.3.4 List the activities and programs established to be ruled in the whole unit in an Activity Offer for the inmates for 2012	1 day	Tue 1/24/12	Tue 1/24/12
23	**1.4 Promote the new Activity Offer and the Selection Criteria**	**17 days**	**Mon 1/23/12**	**Tue 2/14/12**
24	1.4.1 Promote the Section Activity Offer by informational activities and display them on Section Notice Boards	3 days	Mon 1/23/12	Wed 1/25/12
25	**1.4.2 Promote the Activity Offer of the unit and the Selection Criteria**	**15 days**	**Wed 1/25/12**	**Tue 2/14/12**
26	1.4.2.1 Promote during the quarantine period in the INSTAD Program and in the Informational Room Maps	15 days	Wed 1/25/12	Tue 2/14/12
27	1.4.2.2 Promote using the TV Station with internal circuit, flayers, articles in the detention newsletters etc.	15 days	Wed 1/25/12	Tue 2/14/12
28	**1.5 Promote the new legal framework and the ideas of the National Strategy for Social Reintegration of the inmates 2010 – 2013 to the social partners from the community**	**34.5 days**	**Fri 12/23/11**	**Thu 2/9/12**
29	1.5.1 Establish a legal framework for the collaborators, in order to sign a record that provides information about the legal conditions	1 day	Fri 12/23/11	Fri 12/23/11
30	**1.5.2 Promote the new legal framework and the ideas of the National Strategy for Social Reintegration of the inmates 2010 – 2013 to the social partners from the community**	**4 days**	**Mon 1/16/12**	**Thu 1/19/12**
31	1.5.2.1 Set up a meeting with all the partners we collaborate with	1 day	Mon 1/16/12	Mon 1/16/12
32	1.5.2.2 Organize a colloquial activity at National Police Academy, Penitentiary Specialty Section	1 day	Tue 1/17/12	Tue 1/17/12
33	1.5.2.3 Deliver press handouts for each occasion mention above	2 days	Wed 1/18/12	Thu 1/19/12
34	1.5.3 Set up new Collaboration Protocols with the partners from the community	12 days	Tue 1/24/12	Thu 2/9/12

Table no. 1. Work Breakdown Structure (WBS)

3. Time Management Plan (Gantt Chart)

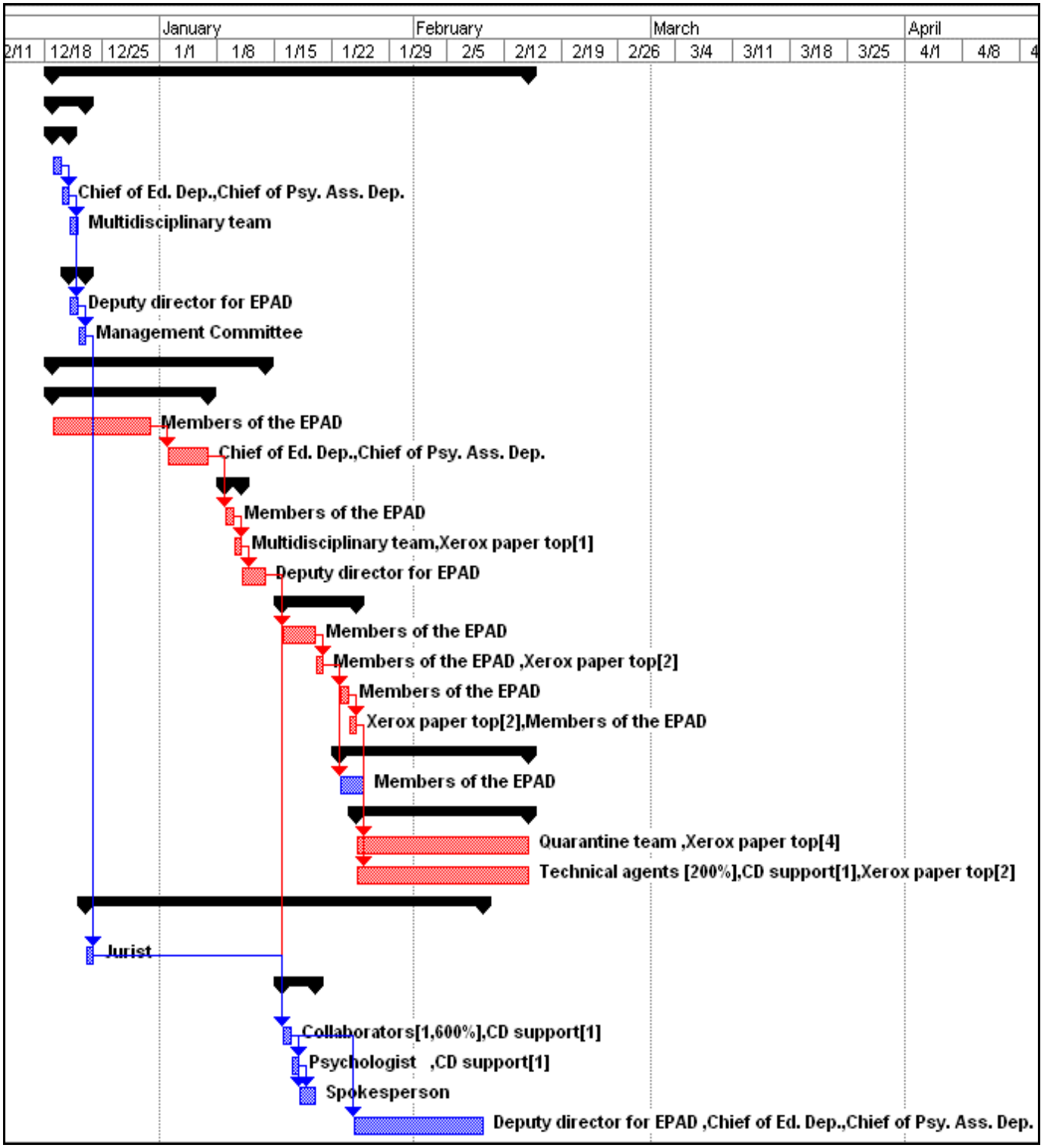


Diagram no. 1: Gantt Chart

4. Human Resource Management

The project team is comprised of the people who are already employed by Bucharest-Rahova Penitentiary and they have assigned roles and responsibilities for completing these project. Team members will be involved in much of the project's planning and decision-making. This involvement of team members adds expertise during the planning process and strengthens commitment to the project.

The project management team is a subset of the project team and is responsible for project management activities such as planning, controlling, and closing. This group is composed by the deputy director for Educational and Psychosocial Assistance Department (EPAD), chief for Educational Service and Chief for Psychosocial Assistance Service. Human Resources we dispose at the moment (29 employees, including 4 psychologists, 1 social worker, 2 technical agents, 19 educators – officers and agents) enable us to assume responsibility of engaging in such a short term project. For the execution functions we determine project roles, responsibilities, and reporting relationships for each of one staff member from EPAD. In this management project, the roles were designated for persons and for groups. Those groups are from inside or outside the organization performing the project – the members of EPAD and collaborators from community.

On the Linear Responsibility Chart below is described the portion of the project for which a person or a group is accountable, and the responsibility for that work expected to be performed in order to complete the project's activities. On setting the chart, it had been taken into account the skills and capacities required to complete project activities. In order to provide safety, the policies and procedures that protect team members from safety hazards determined us to include establishing a legal framework for the collaborators as an activity of the project. In this way we aim to sign a record that provides information about the new legal conditions for organizing and developing educational, cultural, therapeutically, psychological counselling and social assistance activities - O.M.J. 2199/C/15.11.2011.

Linear Responsibility Chart

Objectives	Director	Deputy director for Educational and Psychosocial Assistance D	Chief of Educational Service	Chief of Psychosocial Assistance Service	Members of Educational and Psychosocial Assistant Dep.	Collaborators
Debate and discus the opportunities of the new legal framework	**4**	**1**	**2**	**2**	**3**	
Elaborate a new Activity Plan EPAD for 2012	**4**	**1**	**2**	**2**	**3**	**3**
Elaborate a new Activity Offer for the inmates for 2012	**4**	**2**	**1**	**1**	**3**	**3**
Promote the new Activity Offer and the Selection Criteria	**4**	**2**	**1**	**1**	**1**	
Promote the new legal framework and the ideas of the National Strategy for Social Reintegration of the Inmates 2010 – 2013 to the social partners from the community	**4**	**1**	**3**	**3**	**1**	**3**

Legend:

1. actual responsibility
2. general supervision
3. must be consulted
4. approval authority

Table no. 2: Linear Responsibility Chart

5. Communications Management

The Project Communications Management processes provide the critical links among people and information that are necessary for successful communications. Every human resource involved in this project should understand how communications affect the project as a whole.

The Communication Matrix described below contains a communications planning – determining the information and communications needs of the project's stakeholders, information distribution – making information available to project stakeholders in a timely manner, performance reporting – collecting and distributing performance information, stakeholders' management – in order to satisfy the requirements of and resolve issues with project stakeholders.

A very important feature of this project is represented by the communications skill that includes ensuring the right persons get the right information at the right time, as defined in the communications management plan. Because the main objectives of the project are those that promote and debate new ideas and new legal framework, we will have to point out the importance of the art of managing stakeholder requirements. The information will have to be clear and complete so that the receiver can acquire it correctly and can understand it properly. The receivers are represented by staff members, other employees from different departments, external collaborators but also all the inmates, especially those from the quarantine section. We suppose to be using different communicational dimensions as written and oral, listening, and speaking, internal (within the project) and external (customer, the media, the public), formal (reports, briefings) and informal (memos, ad hoc conversations), vertical (up and down the organization) and horizontal (with peers).

Communication Matrix

Project Stage	Target audience	Person(s) to convey the message	When the message is conveyed	Format of a message	Message content
1. Debate the opportunities of the new legal framework	All members of the EPAD Multidisciplinary team Management Committee	Deputy director for EPAD	Weekly department meeting on 19.12. and 20.12.2011 Multidisciplinary team meeting and Management Committee on 21.12.2011	Presentation Debate Consultation Weekly reports	• Project introduction • Teams and members • Project phases and deliverables • Current status • Measurements Plan
2. Elaborate a new Activity Plan EPAD for 2012	All members of the EPAD Multidisciplinary team	Deputy director for EPAD	Weekly department meeting on 09.01.2012 Multidisciplinary team meeting and Management Committee on 10.01.2012 13.01.2012	Presentation Debate Consultation Written status report	• Legal context • Project overview • Stage overview • Activity Plan EPAD for 2012
3. Elaborate a new Activity Offer for the inmates for 2012	All members of the EPAD	Deputy director for EPAD	23.12.2011 – 28.12.2011 30.12.2011 03.01.2011	Presentation Debate Consultation Written status report	• List of planed activities for each section / Club • Section Activity Offer • Activity Offer for the inmates for 2012
4. Promote the new Activity Offer and the Selections Criteria	All inmates, especially those in the quarantine period	Chief of Ed. Dep. Chief of Psy. Ass. Dep. Team from the quarantine section	04.01.2012 – 06.01.2012 04.01.2012 – 24.01.2012	Presentation Informational activities Promoting activities Feedback form	• Legal context • Activity Offer for the inmates for 2012 • Section Activity Offer and Selections Cri
5. Promote the new legal framework and the ideas of the National Strategy for Social Reintegration of the Inmates 2010 – 2013 to the social partners from the community	Collaborators Partners Students from National Police Academy, Penitentiary Specialty Section	Deputy director for EPAD psychologist	09.01.2012 12.01.2012 17.01.2012	formal/ informal presentation Debate Colloquial activity Written status report Feedback form	• Legal context • National Strategy for Social Reintegration of the Inmates 2010 – 2013 • record that gives information about the new legal framework to the external collaborators to be sign up • Upgrades or actualizations of the Collaboration Protocols • Handout of the activity and press appearance

Table no. 3 Communication Matrix

6. Project Cost Management

In a similar project finished 3 months ago the costs were minimal, except the ones for materials resources for the promoting activities - of around 100 lei to complete. The current costs we are estimating are similar, and the same people are available to work.

A typical order of magnitude estimate can fall between -25% and +75% of the actual cost of the project.

On the estimated cost of the project we took in account the cost per human resources as well, even if all the staff members are employees of Bucharest - Rahova Penitentiary. When we add up the entire task estimates, we will have a total project estimate that should fall in the range of – 5% to +10% of the actual cost of the project.

6.1. Resource pool description

Resource Pool Description

Resource type	Name	Number
Skilled resources / human	Deputy director for EPAD	1
	Chief of Educational Dep.	1
	Chief of Psychosocial Assistance Dep.	1
	Members of the EPAD	29
	Psychologist	1
	Multidisciplinary team	7
	Management Committee	9
	Technical agents	2
	Quarantine team	5
	Spokesperson	1
	Jurist	1
	Collaborators	16
Equipment	Video projector	1
Materials	Xerox paper top	11
	CD support	3

Table no. 4 Resource Pool Description

6.2. Cost breakdown structure

Resource type	Name	Quantity	Unit cost (lei)	Total cost (lei)	Total (lei)
Human resource	Deputy director for EPAD	1	170.00 /day	2,720.00	19,691.50
	Chief of Ed. Dep.	1	165.00 /day	2,970.00	
	Chief of Psy. Ass. Dep.	1	165.00 /day	2,970.00	
	Members of the EPAD	29	150.00 /day	3,150.00	
	Psychologist	1	150.00 /day	150.00	
	Multidisciplinary team	7	165.00 /day	330.00	
	Management Committee	9	170.00 /day	170.00	
	Technical agents	2	145.00 /day	4,350.00	
	Quarantine team	5	150.00 /day	2,250.00	
	Collaborators	16	0.00lei/h	0.00	
Materials	Xerox paper top	1	15.00	165.00	166.50
	CD support	1	0.50	1.50	
Overall costs		10% of the estimated cost			1,985.00
TOTAL					21,843.00

Table no. 5 Cost Breakdown Structure

7. Project quality management

7.1. Project quality definition

The penitentiary system is a public usefulness service that must be administered in the name of humanism and justice. The society must understand that the persons condemned to freedom deprivative punishments are not the propriety of the penitentiary, and the chance to reintegrate them is a chance that the community awards equally to itself.

The purpose is to elaborate a management project for EPAD that will provide a good integration of the new legal framework (O.M.J. 2199/C/15.11.2011), and will consolidate and bring efficiency to EPAD activities, from the perspective of a multidisciplinary team.

The evaluation of the efficiency for applying educational, psychological and social programs by the employees and by the collaborators is another quality indicator.

Another aim concerning the quality management plan is to organize advocacy activities (debates, round tables, radio and TV shows, promotional materials, surveys) in order to promote legislative changes.

An important issue is to organize lobby activities in order to promote all legislatives projects that refer to social reintegration of the detainees – as the National Strategy for Social Reintegration of the persons condemned to freedom deprivative punishments.

7.2. Key quality concepts measurement

Humanism	Believe and trust in the free development of a human being and in the value of each individual.
Integrity	Respect for professional ethic specific to all activity domains.
Loyalty	Attachment to the institution mission and all assumed roles.
Professionalism	Respect for the Professional Deontology and for the work quality standards.
Respect the law	Respect for right state principles and equality in front law.
Result orientation	Interest for efficiency and efficacy of the activities.

Individual orientation Equilibrium between individual needs and community needs, under law conditions.

Continuity Ensuring a succession for the measurements that have social reintegration finality.

Multidisciplinary Diversification of the measurements pallet, institutions and organizations involved.

Openness to community Awareness of the social reintegration finality

7.3. List of deliverables and acceptance criteria

Project Stage	Deliverables	Acceptance Criteria
1. Debating the opportunities of the new legal framework	The record of the meetings The list of opportunities and measurements The Measurements Plan	The record of the meetings with different comments of each participant – proactive participation Realistic list of opportunities and measurements
2. Elaborating a new Activity Plan EPAD for 2012	The Educational Service Activity Analyse The Psychosocial Assistance Service Activity Analyse EPAD Activity Analyse for 2011 The record of the meetings EPAD Activity Plan for 2012	A realistic activity analysis about participants and not about participation of the inmates The record of the meetings with different comments of each participant – proactive participation A feasible Activity Plan for 2012 in accordance with Unit Managerial Program for Developing
3. Elaborating a new Activity Offer for the inmates for 2012	Section Activity Offers Penitentiary Activity Offer	List of planned activities for each section of detention including all the other activities outside the sections (church, school, etc)
4. Promoting the new Activity Offer and the Selections Criteria	INSTAD Program Map actualized Informational Rom Map actualized Articles in the detention newsletters, flayers, announcements broadcasted by the TV -Station with internal circuit – DET TV	At least one informational activity/week/section/educator Display of the Activity Offer on the Notice Board of each section Records of the materials used to promote the Activity Offer
5. Promoting the new legal framework and the ideas of the National Strategy for Social Reintegration of the Inmates 2010 – 2013 to the social partners from the community	Record that gives information about the new legal framework to the collaborators in order to be sign up Number of participants from the number of invitations sent Feed-backs from the collaborators	Good reactions and feed-backs from collaborators as well from the students More than 75 % confirmation and participation from the numbers of invitations sent to collaborators Good press appearance All Collaboration Protocols upgraded or actualized More than 2 New Collaboration

	Number of participants from the number of the students Feed-backs from the students Handout of the activity and press appearance Collaboration Protocols upgraded or actualized New Collaboration Protocols	Protocols

Table no. 6 Deliverables and Acceptance Criteria

7.4. Quality planning and control (activities and responsible persons)

Name	Role	Quality Responsibility
Deputy director for EPAD	Project Manager	Quality mentoring & coaching
Chief of Educational Service	Team Leader	Quality implementation for documents
Chief of Psychosocial Assistance Service	Team Leader	Quality implementation for documents
Psychologist	Teacher at National Police Academy	Quality of advocacy and lobby activities
Spokesperson of the unit	spokesperson	Quality deliver for the handout of the activities and press appearance
Technical agents	Technical agents	Quality advocacy activities and auditing technical process
Director	Director	Participating in project review
Jurist	Jurist	Quality of deliver of the record
Members of the EPAD	Members of the EPAD Quarantine team	Quality implementation for documents
Collaborators	Collaborators	Quality of the new collaboration projects proposed
Multidisciplinary team	Multidisciplinary team	Quality of the participation in project review
Management Committee	Management Committee	Quality of the participating in project approvals and documents deliver

Table no. 7 Quality Planning and Control

8. Project risk management_

In the risk management area are identified and evaluated the main risks for the activities of the project, and all information about circumstances that favours occurrence of the risks. It mentions the responsible regarding risks management, the strategy adopted to diminish risks, the control instruments, the terms for putting into practice, residual risk that are to be found in the risk matrix.

Diagram no.2 asses the risk matrix and tries to define risks according to the likelihood of appearance and impact on the activities that may be affected by one specific risk (starting from grade 1 – low risk to grade 16 – high risk).

8.1. Risks assessment matrix

LIKELIHOOD (A)					
	Likely 4	4	8	12	16
	Feasible 3	3	6	9	12
	Slight 2	2	4	6	8
	Very unlikely 1	1	2	3	4
		Insignificant 1	**Minor** 2	**Significant** 3	**Major** 4
IMPACT (B)					

Green = Low risk, Amber 9 = Medium risk, Amber 10 –12 = high risk, Red = High risk

Likelihood of Occurrence (A)		Severity of Impact (B)
1- Very unlikely	(hasn't occurred before)	1 - Insignificant (have no effect)
2 - Slight	(rarely occurs)	2 - Minor (little effect)
3 - Feasible	(possible, but not	3 - Significant (may pose a problem)
4 - Likely	(has before, will again)	4 - Major (Will pose a problem)

Diagram no. 2 Risk Assessment Matrix

8.2. Risk Matrix and strategies for tackling major risks

Nr. crt	Specific Objectives	Activities	Risks	Circumstances that favourites the risks appearance	Responsible with risks management	Inherent Risk			Strategy adopted to diminish risk	Control Instruments	Term for putting into practice	Date of revision	Residual Risk			Eventual secondary risks
						Probability	Impact	Exposure					Probability	Impact	Exposure	
1	**1. Disseminate the opportunities of the new legal conditions for organizing and developing educational, cultural, therapeutically, psychological counselling and social assistance activities - O.M.J. 2199/C/15.11.2011**	1.1 During the weekly department meeting, debate the opportunities of the new legal conditions for organizing and developing educational, cultural, therapeutically, psychological counselling and social assistance activities - O.M.J. 2199/C/15.11.2011	Poor consultation of the O.M.J. 2199/C/15.11.2011	High absenteeism of the personnel Activity overlap	deputy director for EPA Department	1	1	1	Allocation of 2 hours per day for the study of O.M.J. 2199/C/15.11. 2011 from the time allocated to the office activities	Knowledge Assessment	19.12. 2011	20.12. 2011	1	1	1	Incompliance of other activities by allocating too much time to these activity
		1.2 Discuss the opportunities in the multidisciplinary team in order to obtain a Measurements Plan on Implementing O.M.J/ 2199/C/15.11.2011	Poor consultation of the legal framework from the other services	Overlap activities and other daily activities doesn't allow them to allocate time for study	deputy director for EPA Department Human Resources officer	2	2	4	Introduce the study of O.M.J. 2199/C/15.11. 2011 on the e-learning platform in order to be consulted by officers and agents from other departments	Knowledge Assessment	21.12. 2011	15.01. 2012	1	1	1	Incompliance of other activities by allocating too much time to these activity
		1.3. Sustain the real solutions and opportunities on the Management Committee of the penitentiary	Delay of the Management Committee meeting	Activity overlap because of the Christmas activities proximity	deputy director for EPA Department	1	1	1	Send the Measurements Plan to the secretary of the Management Committee Make lobby in order to be included as a main point of discussion on the meeting agenda	Measurements Plan to be sent The meeting agenda	21.12. 2011	21.12. 2011	1	-	-	-
2	**Elaborate a new Activity Plan EPAD**	2.1 Realize an Activity Analyze for 2011	Delay of the activity and	Christmas Holiday	Chief of Education	2	2	4	Prioritize the activity for the	Activity Analyze to	30.12. 2011	06.01. 2012	1	2	2	Incompliance of other

			overlap the activities	activities proximity	al Service Chief of Psychosocial Assistance Service				period established Set up a group of work especially for that activity	be made in each section and each department						activities by allocating too much time to these activity
	for 2012 - including the plan for the spaces we are going to use in the new activities	2.2. Set up a draft of Activity Plan EPAD for 2012	High absenteeism of the personnel	The New Year Eve activities	Chief of Educational Service Chief of Psychosocial Assistance Service	1	2	2	Prioritize the activity for the period established	Activity Plan to be made in each section and each department	09.01 2012	10.01. 2012	1	1	1	-
		2.3 Elaborate and list the Activity Plan EPAD for 2012 for the approval and registration	Delay of the Multidisciplinary team meeting	Activity overlap Multitasking	Deputy director for EPA Department	1	1	2	Send the Activity Plan EPAD for 2012 to the Multidisciplinary team by e-mail on 10.01.2012	The approval and registration of the document	11.01. 2011	13.01. 2011	0	0	0	-
3	**Elaborate a new Activity Offer for the inmates for 2012**	3.1. Starting from the Activity Plan EPAD for 2012, set up the list of the planed activity and programs versus available and equipped spaces	Not enough spaces – Clubs equipped adequately versus activities need to be developed	External factors	Members of EPAD, teams from each section	1	2	2	Set up a group of work for each section, under the coordination of chiefs of services	List of planed activities for each section of detention versus available and equipped spaces – Clubs	16.01. 2012	19.01. 2012	1	2	2	Allocating money for the improvement of the spaces
		3.2. List the activities and programs established to be ruled in one specific section of detention in a Section Activity Offer	High absenteeism of the personnel	Multitasking	Members of EPAD, teams from each section	2	2	4	Allocating time for that activity in the Specialist Individual Timetable	Approvals of the Specialist Individual Timetables	20.01. 2012	21.01. 2012	1	1	1	Not promote the Activity Offer for the section
		3.3 Sum up all the Section Activity Offers from the sections into a Activity Offer for the whole unit – including all other activities outside the sections (church, school etc)	Not all the Activity Offers from the sections being finalized	Activity overlap Multitasking	Chief of Educational Service Chief of Psychosocial Assistance Service	2	3	6	Allocating time for that activity in the Specialist Individual Timetable	Approvals of the Section Activity Offers	23.01. 2012	24.01. 2012	1	1	1	-
		3.4. List the activities and programs established to be ruled in the whole unit in an Activity Offer for the inmates for 2012	Not all the Activity Offers from the sections being summed up by the responsible persons	Activity overlap because of the 2011 Balance activities	Deputy director for EPA Department	1	2	2	Allocating time for that activity In order to collaborate data with the Balance 2011 Activities	Approvals of the Activity Offer for the whole unit	24.01. 2012	25.01. 2012	1	1	1	-
4	**Promote the new Activity Offer and**	4.1. Promote the	High absenteeism of	Multitasking	Members of EPAD,	2	2	4	Allocating time for that activity	Approvals of the	23.01. 2012	25.01. 2012	1	1	1	Not promote the Activity

		Section Activity Offer by informational activities and by displaying it on the Section Notice Board	the personnel		teams from each section				in the Specialist Individual Timetable	Specialist Individual Timetables						Offer for the section
	the Selection Criteria	4.2. Promote the Activity Offer of the unit and the Selection Criteria	Activity overlap for the technical agents and educators from each section of detention	Not enough time for each activity because of the specific of the unit – a transitional and pre-trial custody penitentiary	Chief of Education al Service	1	2	2	Efficient planification of time and groups of work	Check out the INSTAD Program Map, Informational Rom Map, articles, flayers, DET-TV shows etc	25.01.2012	14.02.2012	-	-	-	-
5	**Promote the new legal framework and the ideas of the National Strategy for Social Reintegration of the inmates 2010 – 2013 to the social partners from the community**	5.1 Establish a legal framework for the collaborators, in order to sign a record that give them information about the certain data concerning the new legal conditions for organizing and developing educational, cultural, therapeutically, psychological counselling and social assistance activities O.M.J. 2199/C/15.11.2011	Reticence of the collaborators about that new record that has to be sign up	An environment full of rules for the security of the staff and inmates	Deputy director for EPA Departme nt	2	1	2	Multiply the record in enough no. and place them at Control Post 1 for all collaborators and visitors to be sign up	Record that gives information about the new legal framework to the external collaborators that had been signed up	23.12.2011	12.01.2012	1	1	1	Not enough material resources
		5.2 Promote the new legal framework and the ideas of the National Strategy for Social Reintegration of the inmates 2010 – 2013 to the social partners from the community	Small number of participants from the number of invitations sent	External factors	Deputy director for EPA Departme nt	2	2	4	Ask for the confirmation of the participation and keep contact by e-mail or phone	Presence List Feed-backs from collaborators and from the students Surveys	12.01.2012	17.01.2012	1	1	1	Not enough material resources.
		5.3 Set up new Collaboration Protocols with the partners from the community	Reticence of the collaborators about the difficulty of relating with the penitentiary system	An environment full of rules for the security of the staff and inmates	Deputy director for EPA Departme nt	1	2	2	Discuss in clear the solution with each partner and found out feasible programs	New Collaboratio n Protocols and Collaboratio n Protocols updated	12.01.2012	31.01.2012	1	1	1	-

Table no. 8 Risk Matrix and strategies for tackling major risks

9. Conclusions

When we are talking about upgrading the activities in a penitentiary remains the challenge to imagine the most advanced integration methods of the persons condemned to freedom deprivative punishments and here there is another problem to be solved.

Therefore, the key to solve this complicated mechanism stays in the society and starting from this reality, starting mostly from the belief that it is first the obligation of the penitentiary to imagine new techniques of approach, through which the message should arrive to the citizen in a convincing formula and sufficiently honest or intelligent to change eventually his/her perception about the imprisoned and about the role of the penitentiary.

Certainly, each of us can become a change vector from the attitudinal and conceptual point of view, promoters of different perspectives on social reintegration for detainees.

Over the role of behaviour reconfiguration of the inmates, the staff from the penitentiaries has the mission, often too difficult, to convey the community to look at this problem with different eyes from a different perspective. Those persons are not at the “edge of society”, so, even they are away for some time, facilitating their social reintegration is the community responsibility too, that can be accomplished by involvement of public institutions, associations and nongovernmental organizations.

COMPANY'S ABC

DATA CENTER

LTC Codrut MITROI

INTRODUCTION

The present informational society is based exclusively on the IT&C development, this domain being capable to assure a large spectrum of services, such as multimedia, data transfer, e-commerce, e-banking, e-learning and so on and so forth.

In order to align to this society's needs, any kind of organization, either a private company or a governmental authority must adapt or optimise their informational flows to allow an accurate and quick process, fulfilling very strong demands of availability, integrity, confidentiality and non-repudiation for the transmitted information.

According to previous sentences, it is obviously that for a IT&C company, but not exclusive, deployment of an own data center is strongly neccessary. This management project aim is to formalise the main developing steps, in order to plan, to build and to start-up the data center.

1. BUSSINESS CASE

Company ABC is an IT&C company, which is geographically large spread and deals with many IT&C applications like data base, ERP, another web-based applications and also with multimedia services. In order to assure the communication between headquarter and her branches, the company buys services from a provider.

Present situation: Actually the IT resources, especially the servers and storage equipments are located in each organization's site, which conduct to resources dispersion and therefore consistent costs regarding materials (equipment and auxiliary facilities), maintenance and personal (need of high trained specialists in each site). Another drawback is the heterogeneity of developed IT application, which sustains the business flows.

Based on previous facts, company's board decides to change this situation through a concentration of IT resources within a single site. Mainly option is to build a new data center, but it could be took also into consideration another feasible variants. In order to make a decision, company's board charge the deputy chief of the internal IT&C department, designated as project manager (PM) with a preliminary technical and financial analysis.

After a short documentation, PM choose for two variants, which are grouped into **Proposed alternatives:**

a) Building a company's new data center within headquarter, which will sustain all internal business processes in a convergent manner in order to assure availability, integrity and security of company's data;

b) Renting hosting services from another IT&C company, who owns a data center, which can be made in 2 manner: to rent a surface within the data center with an estimated cost of 300,000 EUR per year or to rent equipments, which are already installed in the data center, with an estimated cost of 600,000 EUR per year.

In order to sustain the advantage of an own data center it be performed a SWOT analysis, presented in table 1.1.

Strength: • Own IT&C resources, which give company's independence regarding their management and maintenance • Highest level of data availability for the Headquarter, which is collocated with Data Center • Highest level of data integrity and security for whole company information and data • A better optimisation of company's IT department activities through relocation in HQ of certain very good specialists from company's branches together with disposal of another IT employees, which conduct to HR cost reduction.	**Weakness:** • Initially higher costs (about 8 milion EUR) • Need for conformation to many rules and regulations (e.g. construction authorization, all kind of approval during data center planning and building) • Project complexity • Not an immediate ROI (an estimation of 10 years after the completion, taking into account also space leasing) • Simultaneous engagement of IT&C specialists both in the new project and the current activities
Opportunities: • High expertise achieving for company's IT&C specialists during data center planning and building • Possibility of leasing the data center's unused surface to other companies which could conduct to additional revenue for company • To become a leader company in IT&C field	**Threat:** • Building period is multiannual (estimated to 3 years), which could conduct to budget exceeding • Lack of funds • Disruption of works caused by non-predicted events not only at the construction site but also at international markets • Impossibility of data center space leasing due to financial problems of potential companies • Insolvency of certain firms, which are involved in data center planning and building

As it can see, the proportion between advantages and drawbacks is favorable at strategically level to performing a new building for the data center, so the proposal to the company's board is to approach this variant.

2. SCOPE MANAGEMENT PLAN

The scope of management plan is to provide dedicated oversight to address project-critical activities such as: scheduling, resources, responsibilities, budget, continuity, process defects and status reporting. In order to do this thing, first of all it will be defined 3 main indicators, which will lead further all the related processes.

2.1. Goal

The main goal is to build a new company data center within company's headquarter, which will sustain all internal processes in a convergent manner in order to assure availability, integrity and security of company's data. In addition it could be marked as strategically goal the possibility of becoming a company leader in IT&C field.

2.2. Objectives

The main objectives derived from previous defined goals are:

i) data center planning, which assumes all stages regarding preparing and designing the data center, the designated milestones associated with this objective is the approval for project starting and delivery of data center detailed construction plan;
ii) data center building, which assumes all stages regarding acquisition of all IT&C and auxiliary equipments, the designated milestone associated with this objective is the construction ending and equipments delivery;
iii) data center start-up, which assumes all stages regarding to systems installation, configuration and testing, the designated milestone associated with this objective is the project completion

2.3. Work Breakdown Structure (WBS)

Due to the project complexity, each objective is constituted from many activities, which succeeded according a well done programmed schedule. Below it is presented a short description of each activity:

- *Assessing company's IT&C needs* – the activity consist in an iterative discussion with internal departments representants in order to find out the requirements for IT&C resources and services, which will able to support company's business processes. Activity's deliverable is represented by unstructured IT&C parameters;
- *Determine the data center's IT&C parameters* – the activity assumes a structuration of fundamental IT parameters, which will conduct to data center infrastructure design. In order to do this activity one week data center design course is necessary. Activity's deliverable is represented by preliminary information about the availability (maximum downtime related to business processes importance), facilities capacity (power, cooling, civil works) and upgrade (expected IT &C load over the data center lifetime) requirements.
- *Performing the feasibility study* – the activity encompass the development of data center concept, which support the IT&C parameters and a preliminary budget of the project. It also be highlighted the main constraint, which could affect the project (legal, standards, physically). Activity's deliverable is represented by feasibility study including the estimated budget;
- *Presentation of feasibility study main conclusions* – the activity comprise a formal meeting between project manager and the main and second stakeholder in order to have a global pictures about the investment needed to be started. Activity's deliverable is represented by project beginning approval which represent a milestone for the project;
- *Obtain the construction authorization* – the activity encompasses the legal process in order to obtain the permission to build the data center construction. Activity's deliverable consist in the construction authorization;
- *Building the civil construction* – the activity assumes the building construction, which will accommodate the data center. According to the plans, which are part of the construction authorization, it will be selected a construction enterprise. Activity's deliverable is represented by data center building;
- *Acquisition of auxiliary systems (power, fire prevention, cooling, security)* – the activity consists in the acquisition of all auxiliary systems, which will assure the environmental condition for the IT equipment. Activity's deliverable is represented by equipments, systems.
- *Acquisition of IT&C equipments* – the activity involves the acquisition of IT&C equipment, which will be installed within data center (30% of total planned capacity). Activity's deliverable are IT&C equipments, which build the system.

- *Assuring services delivery for the data center* – the activity supposes establishment of contractual relationship with different service provider (electrical power, communication) in order to assure entire functionality. Activity's deliverable are commercial contracts with service provider;
- *Installation of auxiliary systems* – the activity consists in the installation of the auxiliary systems acquired. Activity's deliverable are completed auxiliary systems;
- *Installation of IT&C equipment* – the activity consists in installation of IT&C resources. Activity's deliverable is represented by IT&C system;
- *Acceptance tests* – the activity assumes the final acceptance for whole systems. It will be tested the power system, the cooling system, the fire prevention system, the security system and the IT&C resource functionality, according to certain precisely methodologies. Activity's deliverable is represented by acceptance documents;
- *Final report* – the activity consist in a detailed report of principal activities regarding the project process, the cost analysis and a perspective view about the life cycle of data center.

Activities main characteristics are illustrated in WBS chart, according to the Appendix 1.

3. TIME MANAGEMENT PLAN (GANTT CHART)

The Gantt chart is illustrated in appendix 2.

4. HUMAN RESOURCE MANAGEMENT

4.1. Scope

HR management aim is to assure that the personal involved in the project has all the capabilities to accomplish all jobs and that he knows his attributions and responsibilities during various project stages.

4.2. HR management general principles within the project

The main HR management principles which will be applied within the project are the following:

- process will be starting with the selection of best internal specialists, which demonstrate also team work capabilities;
- attributions and responsibilities will be exactly defined within formal documents like position attributes;
- a major concern during the project will be the personal training in order to face the inherent problems which could appear;
- in order to enhance team cohesion it will be strongly encouraged informal meeting within and outside of the project such as team building
- in order to prevent HR dysfunction (weak performance, resignations), periodically the team chiefs will discuss with team members their problems regarding to project involvement.

4.3. Responsabilities

During the project stages a lot of personal is involved in project performing, starting from execution level and ending with company's top level. In order to establish each position's responsibility it was developed a responsibility chart, which is presented in table 4.1.

Table 4.1. Linear Responsibility Chart

Activity	CEO	CIO	CFO	PM	Logistics Dept. Chief	Legal Dept. Chief	Internal Dept. Chiefs	Project Team leaders
1.1. Assessing company's IT&C needs	5	4	3*	2	1*	1*	1	1
1.2. Determine the data center's IT&C parameters	4	6	4	2	4	5	5	1
1.3. Performing the feasibility study	5	5	5	2	3	3	5	1
1.4. Presentation of feasibility study main conclusions	6	6	6	1	4	4	4	3
1.5. Obtain the construction authorization	5	4	3	2	1	3	5	1
2.1. Building the civil construction	5	4	4	3	2	3	–	1
2.2. Acquisition of auxiliary systems	6	3	6	3	2	3	–	1
2.3. Acquisition of IT&C equipments	6	6	6	2	1	3	–	1
3.1. Assuring services delivery for the data center	4	3	6	2	2	3	–	1
3.2. Installation of auxiliary systems	5	4	5	2	2	–	–	1
3.3. Installation of IT&C equipment	5	3	5	2	3	–	–	1
3.4. Acceptance tests	4	3	4	2	2	4	3	1
3.5. Final report	6	6	6	1	3	3	4	3

1- actual responsibility
2- general supervision
3- must be consulted
4- must be notified
5- may be notified
6- approval authority

* as user of IT&C services

5. PROJECT COMMUNICATION MANAGEMENT

5.1. Scope

The purpose of Communication Management Plan is to document the methods required to ensure timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information. In order to generate a collaborative environment all kind of communications methods are encourages, from face-to face discussion to modern electronic means like e-mail or videoconference.

5.2. Governating rules of communications

In order to prevent some incidents regarding the communications flow (misunderstanding or lost of messages, wrong message destination), certain rules must be kept:

- All important communications should be made in an acceptable written format;
- The sender of a communication is responsible for ensuring that the receiver understood the message as intended;
- Some specific paper like acceptance documents should have an given format;
- Paper documents resulted from communications process must be registrated and kept in safe places. Electronic documents must be audited and kept in appropriate folder;
- At the beginning of communications flow, person in charge with flow's coordination will assure a team roster to each team member;
- Formal meetings must have a coordinator and an agenda. In case of videoconference usage, according to specific situation the meeting could be recorded;

5.3. Persons involved in communication flows

The main actors, which must establish a communication channel between them are the position involved in project development or approval: project manager, working teams and their leaders, chiefs of internal departments, company's board (CEO, CIO, CFO) and external institution or enterprises who participate within various project stages. Depending on the situation a person could be whether sender or receiver of a message.

5.4. Communication plan

Table 5.1. describe the main communications flow within all project stages, with respect to previous sentences.

Table 5.1. Project Communication Management Plan

Project stage	Target audience	Person(s) to convey the message	Subject	When the message is conveyed	Format of message	Message content
Assessing company's IT&C needs	Company's board	CIO	company's IT&C needs	end of the stage	discussion	presentation of main aspects regarding company's requirements
	Project coordination	PM	stage progress	during the stage	e-mail telephone VTC	main problems which could appear during the evaluation of IT&C requirements
	Project Teams	Team chiefs	stage progress	during the stage	discussion telephone e-mail VTC	main problems which could appear during the evaluation of IT&C requirements
	Internal Departments	Chiefs	dept. IT&C needs	during the stage	discussion telephone e-mail	main problems which could appear during the evaluation of IT&C requirements
Determine the data center's IT&C parameters	Company's board	CEO, CIO, CFO	data center IT&C parameters	end of the stage	report	notification of main conclusion regarding IT&C need
	Project coordination	PM	elaborating the report	during the stage	reports discussion	parameters collected by working teams
	Project Teams	Team chiefs	results of previous stage	end of the stage	reports discussion	parameters collected by working teams
	External institutions/ companies	Representative	organization of specialized course	at activity's beginning	e-mail fax	establish the details regarding the course organization and costs
Performing the feasibility study	Company's board	CEO, CIO, CFO	stage evolution	during the stage	e-mail telephone	information regarding problems which could appear in stage course
	Project coordination	PM	stage problems	during the stage	e-mail telephone VTC	information regarding problems which could appear in stage course

Project stage	Target audience	Person(s) to convey the message	Subject	When the message is conveyed	Format of message	Message content
	Project Teams	Team chiefs	stage evolution	during the stage	e-mail telephone VTC	information regarding stage progress
	External institutions/ companies	Representative	performing the specific studies	during the activity	e-mail fax telephone	establish the conditions in order to acquire the studies follow-up the studies course and the results
Presentation of feasibility study main conclusions	Company's board	CEO, CIO, CFO	feasibility study presentation	after the previous stage	report and presentation	main technical, HR, financial and temporal aspects regarding the project
	Internal Departments	Chiefs				
Obtain the construction authorization	Company's board	CEO, CIO, CFO	stage course	during the stage	e-mail discussion VTC	information regarding stage progress
	Project coordination	PM				
	Project Teams	Team chiefs				
	External institutions/ companies	Representative	performing the authorization	during the stage	e-mail fax telephone	official relationship in order to obtain various advices necessary to final authorization
Building the civil construction	Company's board	CEO, CIO, CFO	stage course	during the stage	e-mail discussion VTC	information regarding stage progress
	Project coordination	PM				
	Project Teams	Team chiefs	performing the construction	during the stage	e-mail telephone VTC	aspects regarding the evolution of building's construction
	External companies	Representative	performing the construction	during the stage	e-mail fax telephone	transmit the requirements and follow-up the construction progress and costs
Acquisition of auxiliary systems	Company's board	CEO, CIO, CFO	acquisition approval	stage beginning	Report	information about technical parameters and costs

Project stage	Target audience	Person(s) to convey the message	Subject	When the message is conveyed	Format of message	Message content
Acquisition of IT&C equipments Assuring services delivery for the data center	Project coordination	PM	acquisition process	during the stage	e-mail telephone	information regarding stage process
	Project Teams	Team chiefs	performing the acquisition	during the stage	e-mail telephone VTC	the evolution of acquisition
	External companies	Representative	performing the acquisition	during the stage	e-mail fax telephone	transmit the requirements and follow-up the acquisition progress and costs
Installation of auxiliary systems Installation of IT&C equipment	Company's board	CEO, CIO, CFO	stage course	during the stage	telephone discussion	information regarding stage progress
	Project coordination	PM	performing the installation	during the stage	e-mail telephone	information regarding problems which could appear during the installation
	Project Teams	Team chiefs	performing the installation	during the stage	e-mail fax telephone	information regarding installation process follow-up
	External companies	Representative				
Acceptance tests	Company's board	CEO, CIO, CFO	stage course	during the stage	telephone discussion	information regarding stage progress
	Project coordination	PM	performing the tests	during the stage	e-mail fax telephone discussion	all aspects which are relevant during the acceptance tests
	Project Teams	Team chiefs				
	External companies	Representative				
Final report	Company's board	CEO, CIO, CFO	project conclusion	after start-up stage ending	report	detailed aspects regarding the objectives accomplishment and the perspective

6. PROJECT COST MANAGEMENT

The aim of the project cost management is to establish the resources needed to accomplish all the project stages and to calculate the associated costs. It encompasses 3 main activities:

- cost estimate, which give an idea about the costs order of magnitude. The main purpose of this step is to make a appropriate estimation, no more than 10% over the real value;
- cost budgeting, which involves an aggregation of the estimated costs of individual activities to establish a total cost baseline;
- cost control, which is responsible of monitoring the budget consumption and to prevent its exceeding

The resources needed for project accomplishment and the cost breakdown structure are presented in next sections.

6.1. Resource pool description

The resource pool encompass all the resources, which are involved in project developing. It be assumed that the human resource is not exclusively dedicated for this project, the percent of time spent for project activities being on average 50% for PM (during all project phases), 60% for team worker and 40% for team chiefs (referring to project stage which involves their participation). Another assumption assert that in project stages it will be used the actually owned IT&C and logistic resources.

Table 6.1. illustrate the resource pool detailing.

Table 6.1. Resource pool description

Resource type	Name	Number
Human resources	Project manager	1
	IT&C specialists	15
	Logistics specialists	10
	Legal advisors	3
	Financial specialists	5
	Team chiefs	7
	Other employees[1]	20
Equipment	Building	1
	IT&C system	1
	Power system	1
	Fire prevention system	1
	Cooling system	1
	Security system	1
	Furniture	1

Resource type	Name	Number
	Workstation[2]	61
	Server[2]	4
	Printer[2]	8
Materials/services	Electricity[3]	3 GWh
	Communication service subscription[3]	1
	Legal advices	15

NOTES: [1]involved in company's IT&C requirements establishment (chiefs of departments and 1 specialist)
[2]involved in all project activity
[3]assuming a 1 year data center function after the start-up

6.2. Cost breakdown structure

The cost breakdown structure aim is to present an most appropriate image of the costs involved in project development. The assumption made are the following:

- the initial start-up of the data center assumes a 30% population of IT&C capacity, which means 60 servers (10,000 EUR/eqpmt), 1 storage equipment of 50 TB capacity (700,000 EUR), 1 tape library (100,000 EUR), communication equipments (300,000 EUR), cabling 150,000 EUR. All equipment costs include the installation;
- estimation of the main auxiliary systems which will be installed in the data center was made with Data Center Capital Expenses Calculator, provided by APC[1], according to figure 6.1. (power system 1,570,000 EUR, cooling system 2,800,000 EUR, other systems – security, fire prevention, 730,000 EUR including the installation);
- estimation of civil construction cost is about 600 EUR/m^2, which conduct to a total of 150,000 EUR;
- estimation of furniture needed for the initial start-up is 3,000 EUR;
- the mean salary is about 2500 EUR for PM, 1000 EUR for logistics, financials and other internal departments employees 1200 EUR for legal adviser, 1500 EUR for IT&C specialists, 2000 EUR for team chiefs and 2000 EUR for internal department chiefs;
- studies costs within the feasibility study (environmental, geodetically) are evaluated at 20,000 EUR;
- construction authorization costs are about 4,050 €, which represent different letters of advise (2,000 €), the authorization tax (1% of the investment value – 1,500 €),

[1] http://www.apcmedia.com/salestools

tax took up by the Construction Inspectorate (0,7% of the investment value – 1,050 €);

- the IT resources involved in project phases performing are not financial quantized.

Total cost is **9,555,666 EUR**, divided in 792,659 EUR direct labour, 7,816,050 materials and 946,957 indirect costs. Table 6.1. present the main categories of costs involved in project accomplishment.

Table 6.1. Project cost estimate

Direct (variable costs)	Cost type	Detailed costs	Amount
	Direct labour	PM	EUR44,744.00
		IT&C specialists	EUR283,154.45
		Logistic specialists	EUR156,942.12
		Financial specialists	EUR57,961.76
		Legal advisors	EUR43,263.00
		Team chiefs	EUR181,034.61
		Other employees	EUR25,560.00
	Direct materials	Workstation	EUR0.00
		Server	EUR0.00
		Printer	EUR0.00
		Building	EUR150,000.00
		IT&C system	EUR1,950,000.00
		Power system	EUR1,570,000.00
		Cooling system	EUR2,800,000.00
		Other systems	EUR730,000.00
		Furniture	EUR3,000.00
		Electricity	EUR450,000.00
		Communication service	EUR120,000.00
		Studies	EUR20,000.00
		Legal advice	EUR15,500.00
		IT Course	EUR6,000.00
		Taxes	EUR1,550.00
	Direct expenses		EUR0.00
Indirect (fixed) costs	Overhead costs (3%)		258,261
	Contingency sum (5%)		430,435
	Escalation (3%)		258,261
	Provisional sum		0

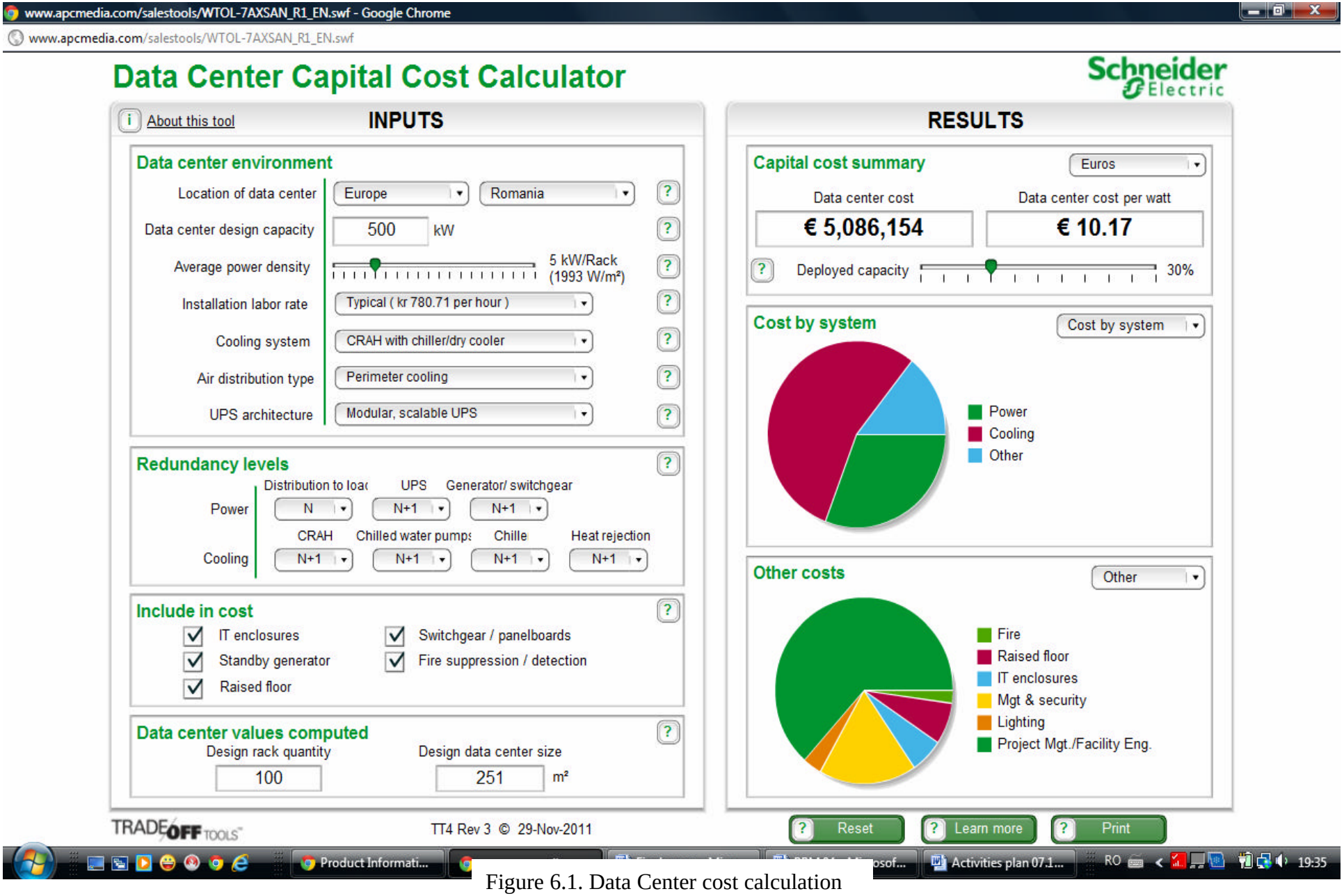


Figure 6.1. Data Center cost calculation

7. PROJECT QUALITY MANAGEMENT

7.1. Scope

This chapter intend to setting out the quality assurance procedures regarding the planning, building and starting-up the data center. His aim is to assure that all the activities during the project are of high quality and meet the specification and requirements, which are developed in project's stages.

7.2. Referenced documents

Quality assurance within this project is based on following documents:

- Data Center standard TIA 942
- Quality standard ISO 9001
- Construction standards
- Information security management systems standard ISO/IEC 27001
- Sections of various statements of work elaborated by planning teams
- Legal provisions
- Specific internal procedures

7.3. Responsibilities

Table 7.1. describes the positions in charge with project's quality assurance and their main responsibilities:

Table 7.1. Main company's position responsabilities

Position	Quality assurance responsibility
Company's board	Overall quality management within company
Project manager	Overall quality management of the project Coordinate the elaboration of specific quality assurance procedures Coordinate directly the final acceptance tests
Team leaders	Elaborate specific quality requirements within statements of work. Perform quality control during project's stages
Legal dept. chef	Assure the lawfulness during the project's stage, which involved legal advice

7.4. Quality management performing during project life cycle

Quality management within the data center building project is a continuous activity, which involves quality planning, quality assurance and quality control.

- Quality planning is performed during each activity start and encompass the statement of specific quality requirements or elaboration of test acceptance procedures. In this phase it will be defined the Key Quality Indicators (KQI).
- Quality assurance involves a permanent comparation between the statements and KQI developed in QP phase and the deliverables quality attributes during the project's stages. It implies also the responsibility of external enterprise, when the activity implies it's performing.
- Quality control involves the audit of the way in which the deliverables meet the KQI. It's performed according to precise documents and procedure and involves the implication of both parties when the activity assumes an external enterprise.

7.5. Key Quality Indicators (KQI)

In order to perform the quality management process, a set of KQI must defined. A KQI is a metric designated to evaluate factors that are crucial to quality accomplishment during project's stages. In the table 7.2. are illustrated the main KQI associated to each activity:

Table 7.2. Main KQI related to project stages

Activity	KQI	Description
1.1. Assessing company's IT&C needs	Accuracy Celerity Level of structuration	Precision of collected data Adherence to final term Grade of which the collected data are easily to further integration
1.2. Determine the data center's IT&C parameters	Conformity Accuracy Celerity Optimisation	Level of adherence to data center standards Grade of which data center parameters correspond to company's needs Adherence to final term Level of elimination redundant information
1.3. Performing the feasibility study	Conformity Accuracy Optimisation Celerity Efficiency	Level of adherence to laws and regulation Grade of which feasibility study is easy to understand. Level of elimination redundant information Adherence to final term Conformation to budget restriction
1.4. Presentation of feasibility study main conclusions	Accuracy Impact	Grade of which feasibility study is easy to understand. Level of impact produced to company's board in order to approve project starting
1.5. Obtain the construction authorization	Conformity Celerity	Level of adherence to authorisation procedure Adherence to final term

Activity	KQI	Description
	Efficiency	Conformation to budget restriction
2.1. Building the civil construction	Conformity Celerity Efficiency	Level of adherence of data center plans Adherence to final term Conformation to budget restriction
2.2. Acquisition of auxiliary systems 2.3. Acquisition of IT&C equipments 3.1. Assuring services delivery for the data center	Conformity Celerity Efficiency	Level of adherence to technical specifications Adherence to final term The final acquisition cost related to estimated cost
3.2. Installation of auxiliary systems 3.3. Installation of IT&C equipment	Conformity Celerity	Level of adherence to installation specifications Adherence to final term
3.4. Acceptance tests	Conformity	Level of adherence to availability, security and integrity specifications made within planning
3.5. Final report	Accuracy Impact	Level of which the information presented are easy of understanding Level of impact produced to company's board in order to conclude the objectives accomplishment

8. PROJECT RISK MANAGEMENT

8.1. Scope

This chapter regards the evaluation of potential factors that could have a negative impact to the project course, their prioritization according to the impact level and also the identification of certain measures in order to minimize risks impact to a value, which is assumed as remanent risk.

8.2. List of risks and counteracting methods

Risks evaluation is performed taking into account on one hand the global environment within the company is placed and on another hand internal risks. A summarization of the most 10 important risks is illustrated in table 8.1 together with identified counteract measures.

Based on this analysis it could be declared that after countermeasures implementation the remanent risk is situated at low level (8), which will be assumed by the company.

Table 8.1. List of most 10 important risks and associated countermeasures

Risk	Likelihood	Impact	Importance	Countermeasures	Risk level after countermeasure implementing
insufficient knowledge about the various technical, legal, procedural aspects regarding project stages	likely (4)	major (4)	high (20)	performing training course, brainstorming meetings, scheduled learning program	low (6)
weak communication between teams weak cohesion between team members	feasible (3)	significant (3)	medium (9)	periodically meetings with team chiefs in order to review the main objective and principles of the communication plan perform informal meetings inside or outside the company, people socialisation	low (4)
weak performance of some persons involved within the project	slight (2)	significant (3)	low (6)	cause identification based on personal discussion, relocation in other team financial reward	low (2)
wrong decisions made by team chiefs	slight (2)	major (4)	low (8)	set up some working groups for difficult problems apply the communication plan	low (4)
budget exceeding	feasible (3)	critical (5)	high (15)	performing a very strongly cost control during project stages	low (8)
final term exceeding	feasible (3)	major (4)	high (12)	performing a very strongly time management	low (4)
weakness regarding the quality of installed systems	feasible (3)	major (4)	high (15)	performing a very strongly quality management in all project stages	low (6)
personal turnover	feasible (3)	significant (9)	medium (9)	financial or other kind of rewards	low (8)
insolvency of certain firms, which are involved in data center planning and building	very unlikely (2)	critical (5)	low (5)	very strictly eligibility process assurance financial guarantees from these firms/companies	low (8)
disruption of works caused by non-predicted events at international markets	very likely (5)	major (4)	high (20)	permanent information about the market identification of feasible alternatives	low (8)

Apendix 1 Work Breakdown Structure

| ID | Task Name | Work | Duration | Details | Dec 18, '
S |
|---|---|---|---|---|---|
| 1 | **Data center building** | **94,927.07 hrs** | **997 days** | Work | |
| 2 | **Data center planning** | **21,338.18 hrs** | **307 days** | Work | |
| 3 | Assessing company's IT&C needs | 6,864 hrs | 60 days | Work | |
| | *PM* | *240 hrs* | | Work | |
| | *IT&C specialists* | *4,320 hrs* | | Work | |
| | *Team chief* | *864 hrs* | | Work | |
| | *Other employee* | *1,440 hrs* | | Work | |
| | *Workstation* | *10* | | Work | |
| | *Server* | *4* | | Work | |
| | *Printer* | *4* | | Work | |
| 4 | **Determine the data center's IT&C parameters** | **7,940 hrs** | **60 days** | Work | |
| 5 | Performing a data center design course | 240 hrs | 5 days | Work | |
| | *IT&C specialists* | *240 hrs* | | Work | |
| | *IT Course* | *1* | | Work | |
| 6 | Design the data center parameters | 7,700 hrs | 55 days | Work | |
| | *PM* | *220 hrs* | | Work | |
| | *IT&C specialists* | *3,960 hrs* | | Work | |
| | *Logistic specialist* | *2,640 hrs* | | Work | |
| | *Team chief* | *880 hrs* | | Work | |
| | *Workstation* | *8* | | Work | |
| | *Server* | *4* | | Work | |
| | *Printer* | *4* | | Work | |
| 7 | **Performing the feasibility study** | **2,210.18 hrs** | **60 days** | Work | |
| 8 | Performing specific studies which are included in the feasibility study | 576 hrs | 30 days | Work | |
| | *PM* | *48 hrs* | | Work | |
| | *Logistic specialist* | *240 hrs* | | Work | |
| | *Legal advisor* | *144 hrs* | | Work | |
| | *Team chief* | *144 hrs* | | Work | |
| | *Workstation* | *17* | | Work | |
| | *Server* | *4* | | Work | |
| | *Printer* | *4* | | Work | |
| | *Studies* | *1* | | Work | |
| 9 | Integrating whole informations in the final document | 1,634.18 hrs | 30 days | Work | |
| | *PM* | *120 hrs* | | Work | |
| | *IT&C specialists* | *344.73 hrs* | | Work | |
| | *Logistic specialist* | *344.73 hrs* | | Work | |
| | *Financial specialist* | *240 hrs* | | Work | |
| | *Legal advisor* | *240 hrs* | | Work | |
| | *Team chief* | *344.73 hrs* | | Work | |
| | *Workstation* | *41* | | Work | |
| | *Server* | *4* | | Work | |
| | *Printer* | *8* | | Work | |
| 10 | Presentation of feasibility study main conclusions | 4 hrs | 1 day | Work | |
| | *PM* | *4 hrs* | | Work | |
| | *Workstation* | *1* | | Work | |
| 11 | Approval for project starting | 0 hrs | 0 days | Work | |
| 12 | Obtain the construction authorization | 4,320 hrs | 120 days | Work | |
| | *PM* | *480 hrs* | | Work | |
| | *Logistic specialist* | *1,920 hrs* | | Work | |
| | *Financial specialist* | *960 hrs* | | Work | |
| | *Legal advisor* | *576 hrs* | | Work | |
| | *Team chief* | *384 hrs* | | Work | |
| | *Workstation* | *23* | | Work | |
| | *Server* | *4* | | Work | |
| | *Printer* | *5* | | Work | |
| | *Legal advice* | *1* | | Work | |
| | *Taxes* | *1* | | Work | |
| 13 | Delivery of data center detailed construction plan | 0 hrs | 0 days | Work | |
| 14 | **Data center building** | **35,284.88 hrs** | **450 days** | Work | |
| 15 | Acquisition of auxiliary systems (power, fire prevention, cooling, security) | 5,728 hrs | 80 days | Work | |
| | *PM* | *96 hrs* | | Work | |
| | *Logistic specialist* | *3,840 hrs* | | Work | |
| | *Financial specialist* | *960 hrs* | | Work | |
| | *Legal advisor* | *576 hrs* | | Work | |
| | *Team chief* | *256 hrs* | | Work | |
| | *Workstation* | *28* | | Work | |
| | *Server* | *4* | | Work | |
| | *Printer* | *5* | | Work | |
| | *Power system* | *1* | | Work | |
| | *Cooling system* | *1* | | Work | |
| | *Other systems* | *1* | | Work | |
| 16 | Building the civil construction | 19,764.88 hrs | 450 days | Work | |
| | *PM* | *360 hrs* | | Work | |
| | *Logistic specialist* | *5,268.3 hrs* | | Work | |
| | *Financial specialist* | *5,268.3 hrs* | | Work | |
| | *Legal advisor* | *3,600 hrs* | | Work | |
| | *Team chief* | *5,268.3 hrs* | | Work | |
| | *Workstation* | *23* | | Work | |
| | *Server* | *4* | | Work | |
| | *Printer* | *5* | | Work | |
| | *Building* | *1* | | Work | |

ID		Task Name	Work	Duration	Details	Dec 18, ' S
17		Acquisition of IT&C equipments	9,792 hrs	90 days	Work	
		PM	*144 hrs*		Work	
		IT&C specialists	*6,480 hrs*		Work	
		Financial specialist	*1,080 hrs*		Work	
		Legal advisor	*648 hrs*		Work	
		Team chief	*1,440 hrs*		Work	
		Workstation	*42*		Work	
		Server	*4*		Work	
		Printer	*8*		Work	
		IT&C system	*1*		Work	
18		Construction ending and equipments delivery	0 hrs	0 days	Work	
19		**Data center start-up**	**38,304 hrs**	**240 days**	Work	
20		Assuring services delivery for the data center	3,168 hrs	60 days	Work	
		PM	*96 hrs*		Work	
		IT&C specialists	*1,440 hrs*		Work	
		Logistic specialist	*864 hrs*		Work	
		Financial specialist	*288 hrs*		Work	
		Legal advisor	*288 hrs*		Work	
		Team chief	*192 hrs*		Work	
		Workstation	*42*		Work	
		Server	*4*		Work	
		Printer	*8*		Work	
		Electricity	*1*		Work	
		Communication service	*1*		Work	
21		Installation of auxiliary systems	5,040 hrs	90 days	Work	
		PM	*144 hrs*		Work	
		Logistic specialist	*4,320 hrs*		Work	
		Team chief	*576 hrs*		Work	
22		Instalation of IT&C equipment	13,968 hrs	90 days	Work	
		PM	*432 hrs*		Work	
		IT&C specialists	*8,640 hrs*		Work	
		Logistic specialist	*2,880 hrs*		Work	
		Team chief	*2,016 hrs*		Work	
23		Acceptance tests	14,592 hrs	60 days	Work	
		PM	*432 hrs*		Work	
		IT&C specialists	*6,480 hrs*		Work	
		Logistic specialist	*3,840 hrs*		Work	
		Financial specialist	*864 hrs*		Work	
		Team chief	*1,536 hrs*		Work	
		Other employee	*1,440 hrs*		Work	
24		Project completion	0 hrs	0 days	Work	
25		Final report	1,536 hrs	30 days	Work	
		PM	*192 hrs*		Work	
		Team chief	*1,344 hrs*		Work	
		Workstation	*8*		Work	
		Server	*4*		Work	
		Printer	*8*		Work	

Appendix 2 Gantt Chart

The training center for the staff of Baia Mare Penitentiary
The National Administration of the Penitentiaries in Romania

Subinsp. Andreea Florina NETEDU

1. BUSINESS CASE

1.1. Purpose: set up a training center in order to improve the continuing vocational training of staff in Baia Mare Penitentiary, which will be performed in accordance to the Order of minister of Justice no. 2855/2004 regarding the vocational training of the employees of the penitentiary system in Romania

1.2. Opportunities:

- **setting up an e-learning laboratory**

One of the objectives of the National Strategy of Romanian Penitentiary System for 2010 – 2013 is to expand the use of e-learning platforms in all units. The e-learning platforms are already implemented with success in 19 penitentiary institutions. Taking into account that it is a modern alternative to staff training, it can be easily tailored to employees needs and it is adapted to IT&C existing market, the implementation of the e-learning platform in Baia Mare Penitentiary it is, at the same time, a mandatory and a challengeable fact.

In addition, this need was assessed through interviews with members of staff from different areas of activity, and a focus group with the heading staff members who are directly responsible for the vocational training of their subordinates. The results were unanimous, underlying the advantages of this method of training.

Furthermore, this e-learning laboratory would have a two-fold aim, one to provide the adequate infrastructure for the implementation of an e-learning platform, and second to provide the space and the tools needed for courses such as foreign languages, negotiators course, communication and team-building course.

The survey carried out in October 2011 regarding the courses needed by the employees of Baia Mare Penitentiary for their professional development, stated clearly the need for organizing the mentioned courses.

- **creating a space to install a three-dimensional virtual shooting range**

According to the Order of minister of Justice no. 2855/2004 the shooting abilities of each member of staff have to be tested at least once a year. Currently, the employees of Baia Mare Penitentiary are assessed in a shooting range located at 20 km from the unit. Hence, the logistic, financial and human resources involved could be significantly reduced by a virtual shooting range installed in the unit, without affecting the accuracy of the evaluation results.

- **setting up a gym for physical training, but also for self defense courses and theoretical and practical first-aid courses**

It is well known the need for the prison staff to stay physically fit. That is why, in accordance to the Order no. 2855/2004 the physical condition of the staff is evaluated once a year, being ignored the fact that they are not provided with an appropriate space to train.

Moreover, in November 2011 has entered into force the Regulation regarding Personal safety, a handbook describing, among others, immobilization techniques when dealing with unsubordinated prisoners, first-aid rules to be followed in self-injuries situations. It is clearly stated that all staff members have to be qualified to use both self-defense or immobilization techniques and first-aid procedures.

Hence, without the appropriate courses, the staff members will not be able to intervene in crisis situations which occur on daily basis in a prison and therefore, the safety and discipline could be severely affected.

1.3. Assumption & Constraints

- **Timescale:** the start date of the project will be 01.01.2012 and the end date 31.12.2013
- **Budget –** estimated cost – 3,500,000 lei

Constraints:

- budget cuts
- market cost variation

- **Human resources –** the penitentiary system will provide the experts to be involved in this project

Constraints:

- the fluctuation of staff

- **Legal frame –** it is provided by the stipulations of the Order of minister of Justice no. 2855/2004 regarding the vocational training of the employees of the penitentiary system in Romania, the Handbook of using the immobilization procedures in the Penitentiary system.

Constraints:

- change of legal frame

1.4. Project manager: the vocational training officer in Baia Mare Penitentiary

2. SCOPE MANAGEMENT PLAN

2.1. Goal

The goal of this project is to set up a training center in order to improve the continuing vocational training of staff in Baia Mare Penitentiary.

2.2. Objectives

Objective 1. To build the training facility in the first 6 months of the project.

Objective 2. To set up the multi purpose e-learning laboratory that will be equipped with 10 computers on which the e-learning platform will be implemented, by the end of the first year of the project.

Sub objective 2.1. To equip the e-learning laboratory in order to provide the adequate logistic resources for the vocational training courses (English Language, Negotiators, Communication & Team building), in the first year of the project.

Objective 3. To install the three-dimensional virtual shooting range, from 10th of September 2012 to 1st of November 2012.

Objective 4. To elaborate the curricula of the vocational training courses (English Language, Negotiators, Communication & Team building), for the self defense course and the first aid course in order to encounter the vocational training needs of staff in this fields, in accordance with the Order of minister of Justice no. 2855/2004, from 1st of January 2013 to 1st of June 2013.

Objective 5. To equip the gym hall with the necessary physical training tools, from 1st of June 2013 to 1st of December 2013.

2.3. Work Breakdown Structure

The list of activities that will be carried out within each objective is provided by the Work Breakdown Structure developed through Microsoft Project:

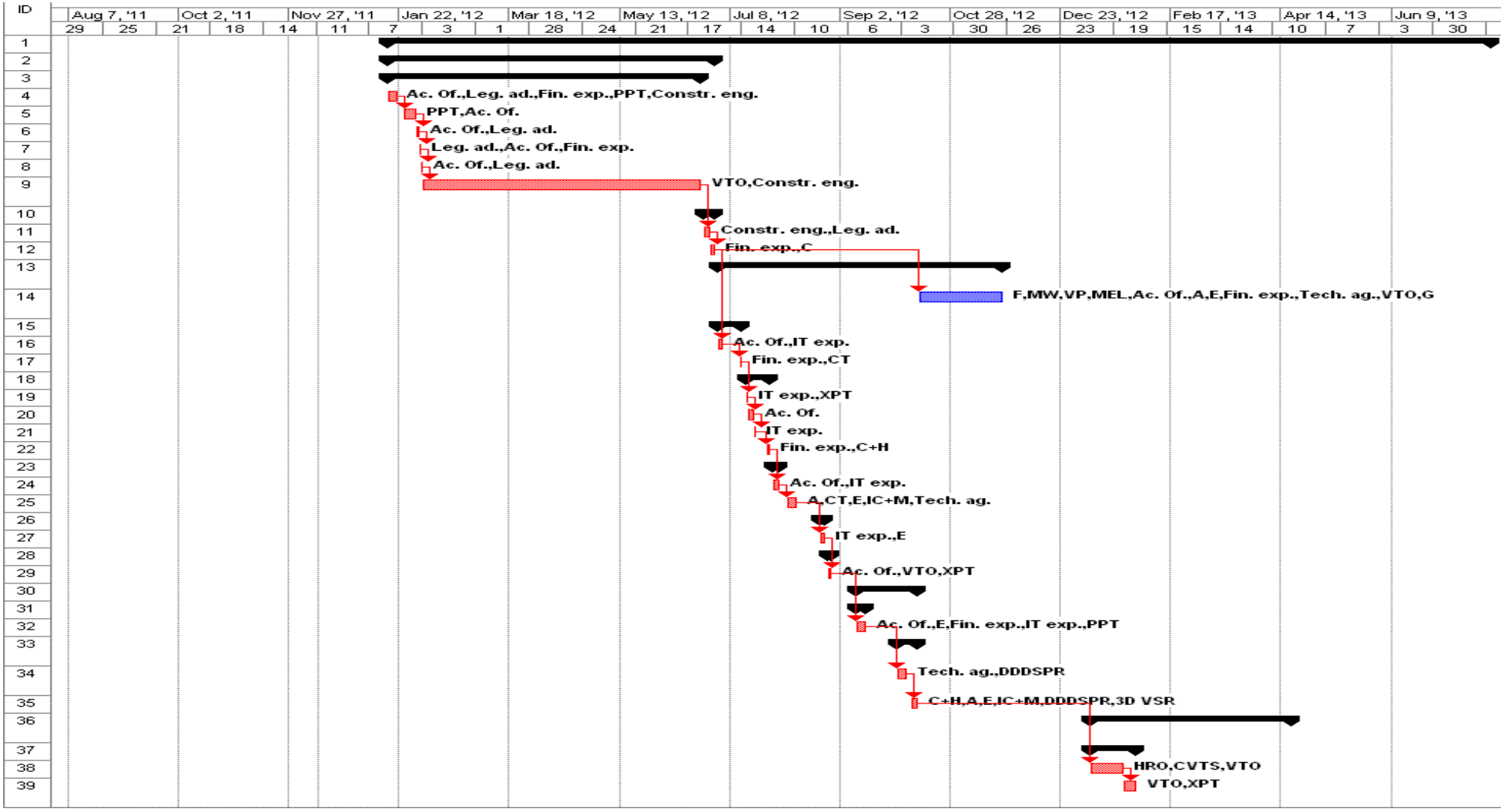
ID	Task Name	Duration	Start	Finish
1	**1 The training center for the employees of Baia Mare Penitentiary**	**401 days**	**Mon 1/16/12**	**Mon 7/29/13**
2	**1.1 To build the training facility in the first 6 months of the project.**	**120 days**	**Mon 1/16/12**	**Fri 6/29/12**
3	**1.1.1 It will be carried out the procedure of hiring a construction firm**	**115 days**	**Mon 1/16/12**	**Fri 6/22/12**
4	1.1.1.1 Initiate the list of acceptance criteria	5 days	Mon 1/16/12	Fri 1/20/12
5	1.1.1.2 Announce the public auction	5 days	Tue 1/24/12	Mon 1/30/12
6	1.1.1.3 Organize the public auction	1 day	Tue 1/31/12	Tue 1/31/12
7	1.1.1.4 Negotiate with the winning construction firm the terms of the contract	1 day	Wed 2/1/12	Wed 2/1/12
8	1.1.1.5 Sign off the contract	1 day	Thu 2/2/12	Thu 2/2/12
9	1.1.1.6 The construction firm will issue monthly reports for the project manager regarding the stage of the work, the detailed budget use and the problems that occurred	101 days	Fri 2/3/12	Fri 6/22/12
10	**1.1.2 Receive the final product**	**5 days**	**Mon 6/25/12**	**Fri 6/29/12**
11	1.1.2.1 The fulfillment of contract obligations by the construction firm will be verified	3 days	Mon 6/25/12	Wed 6/27/12
12	1.1.2.2 The financial responsible will fulfill the payment obligation in the contract	2 days	Thu 6/28/12	Fri 6/29/12
13	**1.2 To set up the multi purpose e-learning laboratory that will be equipped with 10 computers on which the e-learning platform will be implemented, by the end of the first year of the project.**	**104 days**	**Mon 7/2/12**	**Thu 11/22/12**
14	1.2.1 To equip the e-learning laboratory in order to provide the adequate logistic resources for the vocational training courses (English Language, Negotiators, Communication & Team building), in the first year of the project.	30 days	Fri 10/12/12	Thu 11/22/12
15	**1.2.2 Purchase the furniture for the laboratory**	**10 days**	**Mon 7/2/12**	**Fri 7/13/12**
16	1.2.2.1 The IT expert will provide the acquisition officer with the list of settlement and technical requirements for the e-learning laboratory	2 days	Mon 7/2/12	Tue 7/3/12
17	1.2.2.2 Receipt the invoice	1 day	Fri 7/13/12	Fri 7/13/12
18	**1.2.3 Purchase the ten computers and the necessary hardware and software**	**10 days**	**Mon 7/16/12**	**Fri 7/27/12**
19	1.2.3.1 The IT expert will provide the acquisition officer with the list of technical requirements of equipments	1 day	Mon 7/16/12	Mon 7/16/12
20	1.2.3.2 The acquisition officer will indentify the most convenient offer on the market	3 days	Tue 7/17/12	Thu 7/19/12
21	1.2.3.3 The IT expert will choose the offer providing the most suitable equipments for the e-learning laboratory	1 day	Fri 7/20/12	Fri 7/20/12
22	1.2.3.4 Receipt the invoice	1 day	Fri 7/27/12	Fri 7/27/12
23	**1.2.4 Purchase the needed tools for the network**	**3 days**	**Mon 7/30/12**	**Wed 8/1/12**
24	1.2.4.1 The IT expert will initiate the list of the needed tools and their acceptance criteria	3 days	Mon 7/30/12	Wed 8/1/12
25	1.2.5 Connect to the intranet network of the penitentiary	5 days	Mon 8/6/12	Fri 8/10/12
26	**1.2.6 The IT expert will install the e-learning platform on all computers**	**2 days**	**Thu 8/23/12**	**Fri 8/24/12**
27	1.2.6.1 Test the e-learning platform	2 days	Thu 8/23/12	Fri 8/24/12
28	**1.2.7 Purchase a video projector, magnetic whiteboard and a flipchart**	**1 day**	**Mon 8/27/12**	**Mon 8/27/12**
29	1.2.7.1 The project manager will provide the acquisition officer with the list of technical requirements	1 day	Mon 8/27/12	Mon 8/27/12
30	**1.3 To install the three-dimensional virtual shooting range in the first year of the project**	**23 days**	**Mon 9/10/12**	**Wed 10/10/12**

ID	Task Name	Duration	Start	Finish
31	**1.3.1 Purchase the software and the adequate logistics needed for the virtual shooting range**	**5 days**	**Mon 9/10/12**	**Fri 9/14/12**
32	1.3.1.1 Provide the acquisition officer with the technical requirements list	5 days	Mon 9/10/12	Fri 9/14/12
33	**1.3.2 The IT expert and Deputy Director for Detention Safety and Penitentiary Regime will conduct the installing of the software and the setting up of the virtual shooting range**	**8 days**	**Mon 10/1/12**	**Wed 10/10/12**
34	1.3.2.1 The Deputy Director for Detention Safety and Penitentiary Regime will give indications regarding distances, settlement and the virtual shooting scenarios to be used	5 days	Mon 10/1/12	Fri 10/5/12
35	1.3.2.2 Test the virtual shooting range software	3 days	Mon 10/8/12	Wed 10/10/12
36	**1.4 To elaborate the curricula of the vocational training courses (English Language, Negotiators, Communication & Team building), for the self-defense course and the first aid course in order to encounter the vocational training needs of staff in this fields**	**74 days**	**Mon 1/7/13**	**Thu 4/18/13**
37	**1.4.1 Form the teaching team for the vocational training courses**	**17 days**	**Mon 1/7/13**	**Tue 1/29/13**
38	1.4.1.1 Identify the experts among the penitentiary employees	13 days	Mon 1/7/13	Wed 1/23/13
39	1.4.1.2 Provide the teaching team with the courses requirements from the Order of minister of Justice no. 2855/3004 and the Regulation regarding Personal safety	4 days	Thu 1/24/13	Tue 1/29/13
40	1.4.2 Establish the courses themes and lectures	15 days	Wed 1/30/13	Tue 2/19/13
41	1.4.3 Obtain the certification of courses curricula from the Vocational Training Service in The National Administration of the Penitentiaries	5 days	Wed 2/20/13	Tue 2/26/13
42	**1.4.4 Elaborate the courses plans**	**20 days**	**Wed 3/6/13**	**Tue 4/2/13**
43	1.4.4.1 Establish the criteria for attending to each course	5 days	Wed 3/6/13	Tue 3/12/13
44	1.4.4.2 Select the participants	5 days	Wed 3/13/13	Tue 3/19/13
45	1.4.4.3 Form the groups	5 days	Wed 3/20/13	Tue 3/26/13
46	1.4.4.4 Schedule the groups	5 days	Wed 3/27/13	Tue 4/2/13
47	1.4.5 Establish the method to certificate the qualification obtained	5 days	Fri 4/12/13	Thu 4/18/13
48	**1.5 To equip the gym hall with the necessary physical training tools, from 1st of June 2013 to 1st of December 2013**	**42 days**	**Fri 5/31/13**	**Mon 7/29/13**
49	**1.5.1 Purchase the adequate fitness and body building equipment**	**5 days**	**Fri 5/31/13**	**Thu 6/6/13**
50	1.5.1.1 The project manager will provide the acquisition officer with the requirements list regarding the equipment	5 days	Fri 5/31/13	Thu 6/6/13
51	1.5.2 Provide the instructor with all the information needed in order for him to issue a highly productive training schedule	22 days	Fri 6/28/13	Mon 7/29/13

Table no. 1 Work Breakdown Structure

3. TIME MANAGEMENT PLAN (Gantt Chart)

The Time Management Plan is presented as a Gantt Chart (Microsoft Project).



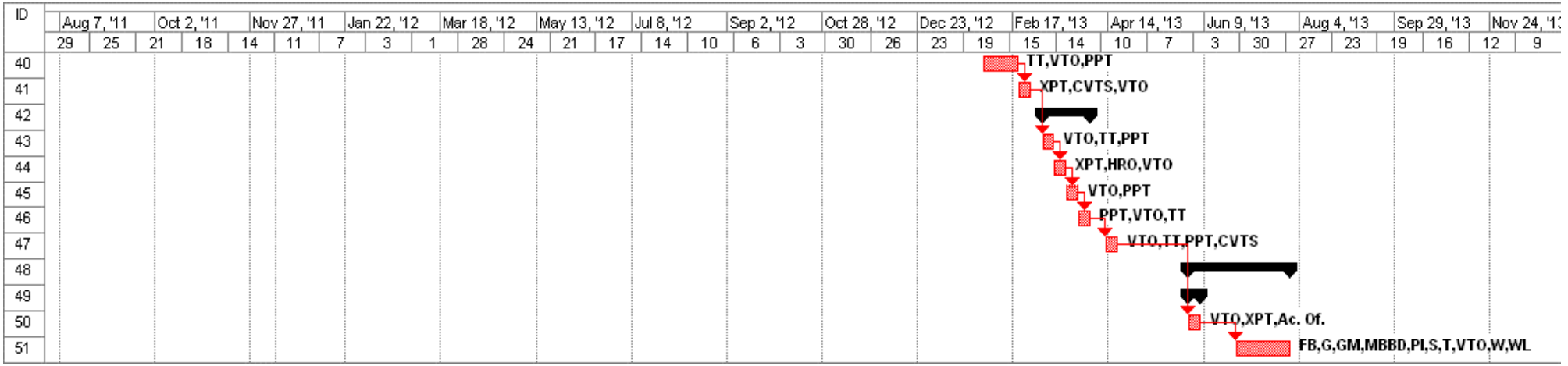


Figure no.1 Gantt Chart

Legend:

ID	Resource Name	Initials
1	Acquisition officer	Ac. Of.
2	Financial expert	Fin. exp.
3	Construction engineer	Constr. eng.
4	Legal adviser	Leg. ad.
5	IT expert	IT exp.
6	Technical agent	Tech. ag.
7	Vocational training officer (the project manager)	VTO
8	Human resources officer	HRO
9	Teaching team	TT
10	Physical instructor	PI
11	The Chief of Vocational Training Service	CVTS
12	The Deputy Director for Detention Safety and Penitentiar	DDDSPR
13	Computer + Hardware	C+H
14	Video projector	VP
15	Fitness bicycle	FB
16	Treadmill	T

ID	Resource Name	Initials
17	Multifunctional body building device	MBBD
18	Stepper	S
19	Magnetic Whiteboard	MW
20	Flipchart	F
21	Computer table	CT
22	Printing paper top	PPT
23	Xerox paper top	XPT
24	Three – dimensional virtual shooting range software	3D VSR
25	Gymnastic mat	GM
26	Weight lifting	WL
27	Adapters	A
28	Water	W
29	Gas	G
30	Electricity	E
31	Internet connection + Maintenance	IC+M
32	Constructions	C
33	Maintenance for the e-learning laboratory	MEL

4. HUMAN RESOURCE MANAGEMENT

The human resources management plan is a tool which will aid in the management of this project's human resource activities throughout the project. The following chart shows the relationship between project activities and team members. Any proposed changes to project responsibilities must be reviewed and approved by the project manager.

Activity	Project manager	Acquisition officer	Financial responsible	Construction firm	Construction engineer	IT expert	Human resource officer	The teaching team	Deputy Director for Detention Safety and Penitentiary Regime	Chief of Vocational Training Service	General Director of ANP	Director of Baia Mare Penitentiary	Physical training instructor
Hiring the construction firm	1	7	7		3						6	5	
Building the training facility	2			7	2							5	
Purchasing the computers, the logistics and the needed tools for the e-learning laboratory	2	7	7			1					6	5	
Installing the e-learning	2					7						5	

platform													
Form the teaching team	7						7			4		5	
Elaborate the courses curricula	1							7		6		5	
Establish the courses plans	1							7		6		5	
Purchasing the equipment for the virtual shooting range	2	7	7			3					6	5	
Installing the shooting range	2					7			7				
Purchasing the equipment for the gym hall	2	7	7									5	3
Elaborate the schedule for the physical training	2									6		3	7

Table no. 2 Linear responsibility chart

Legend: 1 – actual responsibility; 2 – general supervision; 3 – must be consulted; 4 – may be consulted; 5 – must be notified; 6 – approval authority; 7 - performer

5. COMMUNICATIONS MANAGEMENT

This Communications Management Plan sets the communications framework for this project. It will serve as a guide for communications throughout the life of the project and will be updated as communication needs change. The following table will be used as the guide for what information to communicate, when to communicate it and to whom to communicate.

Target audience	Person(s) to convey the message	When the message is conveyed	Format of a message	Message content	Project stage
The National Administration of the Penitentiaries Management board	The general director The director of Baia Mare Penitentiary The Chief of Vocational Training Service	Beginning of January 2012 Monthly	Presentation News letter	- Project purpose, underlying the benefits - Project phases and deliverables - Teams and members - The project's impact on the staff vocational training - Project status	Initiation Planning and Execution
The employees of Baia Mare Penitentiary	The heading staff members who are directly responsible for the vocational training of their subordinates The presidents of the two trade unions of employees	9th of January 2012 Monthly Late January	News letter News letters in the project section created on the web site of the penitentiary Quiz	- Project introduction (purposes and benefits) - Project stages - Project members - Sponsor - Project status - Project deliverables - Asking for	Initiation Planning and Execution Initiation

		2012		feedback regarding the project's purpose, deliverables	
The acquisition team	The acquisition officer The financial responsible	Before the initiation of the acquisition procedures	Meetings	- Project introduction - Project budget - Project acquisition plan - Project deliverables	Initiation Planning Execution
The teaching team	The English Language course lecturer The Negotiators, Communication & Team Building course lecturer The self defense course lecturer The first aid course lecturer	Monthly in the second year of the project - 2013	Meetings	- Project stages - Project deliverables referring to the courses	Planning
The IT team	The IT expert	Monthly in the first year of the project	Meetings	- Project purpose - Project deliverables	Initiation Planning Execution
The construction firm	The CEO of the construction firm	Fortnightly in the first 6 months of the project	Meetings Newsletter	- Project deliverable- the training facility	Planning Execution

Table no. 3 Communication matrix

6. PROJECT COST MANAGEMENT

6.1. Resource pool description

The following table provides a breakdown of the resources needed and their amount.

Materials	Magnetic Whiteboard	1
	Flipchart	1
	Computer table	10
	Writing paper top	5
	Xerox paper top	10
	Three – dimensional virtual shooting range software	1
	Gymnastic mat	25
	Weight lifting	20
	Adapters	20
Services*	Water	
	Gas	
	Electricity	
	Internet connection + Maintenance	
	Constructions	
	Maintenance for the e-learning laboratory	

Table no. 4 Resource pool description

*The costs of the services are estimated to be an amount of 20% of the overall costs of the project.

Resource type	Name	Number
Skilled resources/human resources	Acquisition officer	1
	Financial expert	1
	Construction engineer	1
	Legal adviser	1
	IT expert	1
	Technical agent	1
	Vocational training officer (the project manager)	1
	Human resources officer	1
	Teaching team	4
	Physical instructor	1
	The Chief of Vocational Training Service	1
	The Deputy Director for Detention Safety and Penitentiary Regime	1
Equipment	Computer + Hardware	11
	Video projector	1
	Fitness bicycle	3
	Treadmill	2
	Multifunctional body building device	2
	Stepper	5

6.2. Cost estimating

The cost of the training center for the staff of Baia Mare Penitentiary project is estimated according to the order of magnitude criteria. A similar project was developed in Giurgiu Penitentiary from 1st of January 2009 to 31st of December 2010. The following table provides a breakdown of this project budget and the present project correspondent amounts.

Above the line items	**Direct (variable costs)**	**Direct labour**	The wages and salaries of people employed on the project – 163,400 lei. This amount is estimated to be 10% higher – 179,740 lei.
		Direct materials	Equipment, materials and bought out services used specifically on the project – 2,472,500 lei. This amount is estimated to be 15% higher –2,843,375 lei.
		Direct expenses	Travel, accommodation and other costs chargeable specifically to the project. Can include the hiring of external consultants – 4,300 lei. This amount is estimated to be 5% less – 4,085 lei.
	Indirect (fixed) costs	**Overhead costs**	A portion of the costs of running the business such as general management and accommodation, usually calculated as a proportion of total direct costs – 264,020 lei (10% of total direct costs). This amount is estimated to be 5% higher – 277,221 lei.
Below the line items		**Contingency sum**	An addition, usually calculated as a small percentage of the above the line costs, in an attempt to compensate for estimating errors and omissions, unfunded project changes and other unexpected costs – 145,211 lei (5% of the direct and indirect costs). This amount is estimated to be 5% higher – 152,471 lei.

Table no. 5 Project budget breakdown

Total cost estimation: 3,456,892 lei

7. PROJECT QUALITY MANAGEMENT

7.1. Introduction

This Quality Management Plan (QMP) for the Training center for the staff of Baia Mare Penitentiary describes the quality systems that will be employed by the project team to assure and control the quality of all procedures, processes and deliverables produced during the course of this project.

Regarding the e-learning platform, the courses curricula and the gym hall, these quality systems are designed to be consistent with the Law no. 293/2004 regarding the special status of the employees of the penitentiary system in Romania, the Order of minister of Justice no. 2855/2004 regarding the vocational training of the employees of the penitentiary system in Romania and the Handbook of using the immobilization procedures in the Penitentiary system issued in November 2010 by The National Administration of the Penitentiaries in Romania.

7.2. Scope and field of application

This document encompasses activities that project team shall utilize to assure the quality of products and services provided by the Training center for the staff of Baia Mare Penitentiary

This QMP applies to personnel involved in, and activities conducted by those staff for the Training Center, and contains the minimum specifications and guidelines that are applicable to the Training Center quality management functions and activities based upon the legal framework provided above. These include, but are not limited to, personnel qualification and training, procurement of items and services, documents and records, computer hardware and software, and quality improvement provisions.

7.3. Define Project Quality

This section is aimed to define the exact meaning of quality within the context of the project major outcome – improving the continuing vocational training of the employees of Baia Mare Penitentiary through modern, adaptive and technological advanced means.

7.3.1. Key quality concepts

Efficiency

The Training center is aimed to be a high – performance tool in the process of achieving a qualitative continuing vocational training which would develop the staff abilities needed in order to maintain a safe and sound custodial environment both for the inmates and for the employees.

The vocational training process will develop a system which will be able to cope with the real needs of the employees regarding their activity, the penitentiary's needs and the permanent changes from the penitentiary system.

The system's purpose is to turn the penitentiary's activity into one which has a positive impact both on the society and on the inmates.

Professionalism

The continuing vocational training process provided by the Training center is based on the principles of responsibility, objectively, consistency, respect, discretion, and activity quality, these being essential elements defining the employees' professional conduct.

Individual orientation

In developing the training system it is taken into account that each member of the organization should expand their professional potential. Also, the trainees contribution to the training process is recognized and, if the case, gratified.

Accessibility

The employees of the penitentiary have access to the training courses in accordance to their specific needs, their preoccupations and plans concerning their career development.

7.3.2. Deliverables and acceptance criteria

The following table provides the deliverables of the project and their acceptance criteria:

Deliverable	Acceptance criteria
list of acceptance criteria for the firm which will perform the facility construction	- the committee consisting of the accountant, the construction engineer, the legal adviser and a secretary will work together in order to provide the list of acceptance criteria
public auction announcement	- the announcement will be published in three national papers, three local papers and on the official web site of Baia Mare Penitentiary
contract signed off with the construction firm	- the work will be performed with the firm's equipments, tools and personnel - the price of the contract should be no more than 2150000 lei
monthly reports issued by the construction firm	- the reports will consist in accurate details regarding the stage of the work, the detailed budget use and the problems that occurred
training facility	- a finished construction of 2 floor and 600 square meters (first floor – the gym hall, with 2 locker rooms and separate shower, second floor – 4 rooms of 30 square meters – the e-learning laboratory, the virtual shooting range, an office for the training team, and a recreation room)
furniture for the e-learning laboratory	- the furniture will provide the adequate logistic support for installing the ten computers - ergonomic features
ten computers (hardware and software)	- provide the needed technical support for a network and for the e-learning platform
e-learning platform	- create user accounts and granting them with the according rights - there are created categories of courses corresponding the areas of activity in the penitentiary

	- the interface is created - a forum section for suggestions, opinions is created - a virtual notice board
teaching team	- for the English Language course the lecturer will be an education officer in Baia Mare Penitentiary who has an advanced English language certificate - for the Negotiators, Communication & Team building courses the lecturer will be the psychologist officer who has graduated a Negotiators course and has a pedagogical training - the self defense course lecturer will be an employee of the penitentiary who is a wrestling national champion - the first aid course lecturer will be the one of the two doctors of the penitentiary
courses curricula	- in accordance with the Order of minister of Justice no. 2855/2004 and the Handbook of using the immobilization procedures - certified by The Chief of Vocational Training Service in The National Administration of the Penitentiaries
list of attendance criteria to each course	- to the English Language course will attend all the employees who do not have attached to their personal file an English language proficiency certificate - to the Negotiators course will attend all the employees whose work involves direct contact with the inmates - to the Communication & Team building courses, self defense course and first aid course will attend all the employees of the penitentiary
list of groups for each course	- the groups for the courses in the e-learning laboratory will be no larger than 10 people - the groups for the self defense and first aid courses will be no larger than 25 people
certification method	- the teaching team will establish the most appropriate method to certificate the qualification obtained within each course
three dimensional shooting range	- following the indications of the Deputy Director for Detention Safety and Penitentiary Regime regarding distances, settlement and the virtual shooting scenarios to be used
physical training schedule	- avoid overlapping with the self defense and first aid courses

Table no. 6 Deliverables and acceptance criteria

7.4. Quality activities

The following table provides the indicators of the activities which are divided as quality planning activities and quality control activities, and the responsible person for each activity.

	Responsible person
Quality planning activities	
1.1.1.1.	the acquisition officer
1.2.2.1.	the IT expert
1.2.3.1.	the IT expert
1.2.4.1.	the IT expert
1.2.7.1.	the project manager
1.2.1.1.	the project manager
1.4.1.1.	the project manager
1.4.1.2.	the project manager
1.4.4.1.	the project manager
1.5.1.1.	the project manager
1.5.2.	the project manager
Quality control activities	
1.1.1.6.	the CEO of the construction firm
1.1.2.1.	the project manager
1.2.3.2.	the IT expert
1.2.6.1.	the IT expert
1.3.2.2.	the IT expert
1.4.3.	the project manager
1.4.5.	the project manager

Table no. 7 Quality activities

The activities will be identified in the Work Breakdown Structure (page 8).

8. PROJECT RISK MANAGEMENT

8.1. Introduction

As Baia Mare Penitentiary begins the Training Center project it begins operating in an area of uncertainty that comes along with developing new products and services. By doing so, the penitentiary takes chances which results in risk playing a significant part in any project. The purpose of this risk management plan is to establish the framework in which the project team will identify risks and develop strategies to mitigate or avoid those risks.

8.2. Risk management approach

This section provides a general description for the approach taken to identify and manage the risks associated with the project.

The approach we have taken to manage risks for this project included a methodical process by which the project team identified, scored, and ranked the various risks in order for the assigned risk managers to take the necessary steps to implement the mitigation response at the appropriate time during the schedule. Risk managers will provide status updates on their assigned risks in the monthly project team meetings, but only when the meetings include their risk's planned timeframe.

The following table provides the information regarding the identified risks, their ranking and the correspondent approach strategy for the "out of tolerance" risks.

List of possible risks	Likelihood	Impact	Likelihood x Impact [Score]	Actions required	Risk manager
- change of the legal regulations regarding the public auction procedure	2	3	6		The acquisition officer
- fulfilling all the criteria initiated by the acquisition committee by the construction firm	2	4	8		The acquisition officer
- the time deadline and the weather for the training facility	4	3	12	- the contract will stipulate that the construction firm will be in charge with the consequences of these risks and their responsibility	The CEO of the construction firm
- budget constraints	3	4	12	- prioritize the activities in order to decide their importance for the project purpose and decide which of them can de cancelled or delayed	The financial responsible
- cost variation	4	3	12	- the initial costs of materials, equipments and services will be estimated with 10% more than their actual market value	The financial responsible
- staff fluctuation	4	4	16	- verify if the person who takes over fulfills the criteria of expertise and experience - create and train a reserve team of experts	The project manager
- change of legal frame regarding the vocational training of the penitentiary system staff	3	3	9		The project manager

Table no. 8 Risk management

The score of each listed risk was calculated using the indicators provided by the following risk assessment matrix:

LIKELIHOOD (A)						
	Very Likely 5	5	10	15	20	25
	Likely 4	4	8	12	16	20
	Feasible 3	3	6	9	12	15
	Slight 2	2	4	6	8	10
	Very unlikely 1	1	2	3	4	5
		Insignificant 1	**Minor** 2	**Significant** 3	**Major** 4	**Critical** 5
	IMPACT (B)					

Green = Low risk, Amber 9 = Medium risk, Amber 10 –12 high risk, Red = High risk

Likelihood of Occurrence (A)		**Severity of Impact (B)**	
1- Very unlikely	(hasn't occurred before)	1 - Insignificant	(have no effect)
2 - Slight	(rarely occurs)	2 - Minor	(little effect)
3 - Feasible	(possible, but not	3 - Significant	(may pose a problem)
4 - Likely	(has before, will again)	4 - Major	(Will pose a problem)
5 - Very Likely	(occurs frequently)	5 - Critical	(Immediate action required)

Table no. 9 Risk assessment matrix

Build-up an e-Learning platform within ‘Henri Coanda’ Air Force Academy – eAFA

Capt. Cristea-Gabriel RAU

1. Business Case

See Appendix no 1.

2. Scope Management Plan

2.1. Goal

The Air Force Academy is to implement an e-Learning platform in order to provide Web-based access to the educational resources.

2.2. Objectives

O1. Develop the integrated e-Learning platform by 09/07/2012

O2. Create the content-based Virtual Library by 10/05/2012

O3. Achieve IOC no later than 10/05/2012

O4. Create user accounts for the students by 11/30/2012

O5. Create customized on-line courses for AFA personnel by 12/31/2012

O6. Achieve IOC no later than 31/12/2012

O7. Evaluate and improve the platform through course critiques given by its users and critical analysis done by teaching staff by 07/25/2013

O8. Management of the project by 07/25/2013

O9. Finalize the project no later than 07/25/2013

2.3. Work Breakdown Structure (WBS)

See Appendix no 2.

3. Time Management Plan (Gantt Chart)

See Appendix no 3.

4. Human Resource Management

See Appendices no 4, and 5.

5. Communications Management

Target audience	Person(s) to convey the message	When the message is conveyed	Format of a message	Message content
Public opinion	Project manager	Start of project	Ads in local media	• Project introduction • Project scope • Project total budget
		When achieving milestones	- Ads in local media - News published on AFA web-site and project web-site	• Project scope • Project team • Current status
AFA management	Project manager	Monthly	Status report	• Project overview • Project current status • Project tactic context and benefits • Assessed constraints • Assessed risks • Proposals for change
Tenders	Chief of Public Acquisition Department	January	Letter of Request	• Product specifications • Maximum budget • Eligibility criteria
Contractor	Project manager	Weekly	Oral communication	• Contract status
All project members	Deputy project manager	Fortnightly	News letter	• Teams and members • Project phases and deliverables • Current status
AFA academic members	Deputy project manager	Monthly	Status report	• Current status • Deliverables in place • Benefits and restraints

6. Project Cost Management

6.1. Resource pool description

See Appendix no 6.

6.2. Cost breakdown structure

See Appendix no 7.

7. Project Quality Management

7.1. Project quality definition

The developed eAFA platform will be web-based and it will integrate the e-Learning platform with quality assurance data bases, virtual library resources, and communicational tools for the use of academic members. The platform will provide the teaching staff, scientists, students, and admin personnel the required facilities to easily and securely access the educational resources, to monitor in real-time the students' progress, and to assess in a non-invasive environment the students' outcomes.

7.2. Key quality concepts measurement

Areas	Project characteristics	Quality criteria
Functionality	- web-based - management software - supports standards - supports portability on smart phones and PDAs - integrated data base for Quality Management services - accommodates different communicational tools	- easily customizable - easy to maintain - great flexibility - more users - centralized administration - automated administration - easy to import / export
Availability	- Internet based	- 27/7
Accessibility	- user-friendly interface	- easy to access
Security	- user authentication - mirrored resources - up-datable	- secure access - assured redundancy - developed patches

7.3. List of deliverables and acceptance criteria

Activities for O1	Deliverables	Acceptance criteria
A.1.1.1.1. Develop the product specifications	Product specifications, with emphasis on critical and desirable requirements	Compliance with project goal and objectives
A.1.1.1.2. Identify the IT HW in inventory to be used for the e-Learning platform	List with IT HW and their specifications	Compliance with general e-Learning platform specifications
A.1.1.1.3. Start the acquisition procedure	Published announcement of the auction	Announcement appeared on SEAP
A.1.1.1.4. Do the auction	Tenders	At least 2 bids
A.1.1.1.5. Evaluate the offers	Ranking-list with tenders based on lower price	Compliance with product specifications
A.1.1.1.6. Announce the winning offer	Announcement of the chosen bidder with its winning tender	Compliance with communicational plan
A.1.1.1.7. Negotiate the contract	Draft Contract for acquisition of the e-Learning platform	Compliance with product specifications
A.1.1.1.8. Finalize the acquisition procedure by signing the contract	Endorsed Contract	All parties agreed on the terms of the contract
A.1.1.1.9. Delivery of the new items of the e-Learning platform	New SW package New HW package	All items delivered, checked for compliance with contract provisions, and inventoried
A.1.1.2.1. Develop the SOPs	SOPs	All activities for operating and maintaining of the platform have been standardized
A.1.1.2.2. Identify the locations of the e-Learning HW items	List with available locations	The locations will accommodate all HW items
A.1.1.2.3. Make available the identified locations	Locations made available	The locations will be available for the HW items of the e-Learning platform
A.1.1.2.4. Overhaul the existing HW items to be re-assigned for the e-Learning platform	Overhauled HW items	The IT HW items complies with the platform specifications in terms of operating / maintenance cycle
A.1.1.2.5. Make available the existing in inventory HW items previously identified to be refurbished	Available HW items	The PCs have their HDDs formatted
A.1.1.2.6. Refurbish the existing in inventory HW items	Refurbished / Up-graded HW items	The IT HW items complies with contract provisions
A.1.1.2.7. Mount the HW items to their locations	Installed HW items	The platform complies with contract provisions
A.1.1.3.1. Install the LMS software package	Ready-to-run platform	The platform complies with contract provisions
A.1.1.3.2. Develop the SOPs for activities related to implementing the LMS software	SOPs	All activities for implementing the LMS software have been standardized
A.1.1.3.3. Test the initial functionality of the mounted platform	Test for acceptance	The platform complies with contract provisions
A.1.1.4.1. Install the integrated data base	Data base for Quality Management of educational services	Easy to import and export information within data base
A.1.1.4.2. Develop the SOPs for activities related to integrated data base	SOPs	All activities for implementing the integrated data base have been standardized
A.1.1.4.3. Test the functionality of the integrated systems	Test for acceptance	The platform complies with contract provisions
A.1.1.5.1. Install the elements of the communicational system	- Virtual classrooms - e-mail - forum - chat	Visibility of the communicational items

Activities for O1	Deliverables	Acceptance criteria
A.1.1.5.2. Develop the SOPs for activities related to integrated communicational system	SOPs	All activities for implementing the integrated communicational system have been standardized
A.1.1.5.3. Test the functionality of the eAFA	Test for acceptance	The platform complies with contract provisions
A.1.1.6.1. Develop the tutorials for operating and maintaining the platform	Tutorials in hard-copy and soft-copy formats	Tutorials developed for all the functions of the platform
A.1.1.6.2. Identify the personnel for the critical positions (admins and tutors)	List with proposed personnel for admin positions (2 platform admins, 4 domain admins, 8 tutors)	The personnel is from the staff of AFA
A.1.1.6.3. Assign the persons for the critical positions	Assignment orders	All the critical positions for operating the platform are employed
A.1.1.6.4. Train the critical personnel	Trained personnel	All the assigned personnel took a 2-week course about e-Learning platform and a 1-week course about learning methods
A.1.1.6.5. Create user accounts for all critical personnel	User accounts	All critical personnel has the possibility to access the platform in an individual way

Activities for O2	Deliverables	Acceptance criteria
A.1.3.1. Identify the resources to be hosted by Virtual Library	- Course materials - Critical references - Video presentations	The resource package is designed for students in accordance with curricula
A.1.3.2. Develop the SOPs for activities related to identifying the resources fitted for Virtual Library	SOPs	All activities for identifying the resources for Virtual Library have been standardized
A.1.3.3. Transform the identified package of resources into standardized format for eAFA	Standardized items	The items comply with eAFA
A.1.3.4. Implement the standardized package of resources to eAFA	Virtual Library	Accessible resources of the Virtual Library
A.1.3.5. Develop the tutorials for developing Virtual Library	Tutorials in hard-copy and soft-copy formats	Tutorials developed for all the functions of the platform

Activities for O3	Deliverables	Acceptance criteria
A.1.3.1. Achieve IOC	- Initial functional eAFA - Initial platform maintenance package	- All functions of eAFA are functional with no more than 20% rate of failures - Failures are dealt within contract provisions

Activities for O4	Deliverables	Acceptance criteria
A.1.4.1. Create a modular course for training the students in using eAFA	Modular 2-week course (1 week on-line course and 1 week a face-to-face course)	The course has all the tutorials for accessing the eAFA resources by students
A.1.4.2. Create user accounts for all students	User accounts	All students have the possibility to access the platform
A.1.4.3. Train the users of eAFA	Trained personnel	All the students took the modular about eAFA

Activities for O5	Deliverables	Acceptance criteria
A.1.5.1. Identify the needs for courses hosted by eAFA	List with needs and gaps to be filled with on-line training and education	Needs and gaps are evaluated in accordance with AFA strategy for mid-term developing and its operational objectives

Activities for O5	Deliverables	Acceptance criteria
A.1.5.2. Develop the courses hosted by eAFA	Courses in ready-to-import format (.doc, .xls, .pdf)	Courses developed in accordance with existing SOPs
A.1.5.3. Transform the courses into standard format	- On-line courses - Virtual Library - e-links - Visuals	Courses formatted in accordance with tutorials
A.1.5.4. Implement the newly developed and formatted courses on eAFA	e-Learning resources	Functional platform
A.1.5.5. Achieve FOC – 0 d	Full functional eAFA	Functional platform

Activities for O6	Deliverables	Acceptance criteria
A.1.6.1. Achieve FOC	Full functional eAFA	Functional platform

Activities for O7	Deliverables	Acceptance criteria
A.1.7.1. Conduct 4 on-line courses	On-line courses	- 90% of the students enrolled for courses - 10% rate of failures
A.1.7.2. Develop courses critiques	Courses critiques	No more than 30 min to complete
A.1.7.3. Conduct critical analysis	System critiques	50% of the teaching staff delivered the system critiques
A.1.7.4. Analyse the results of critiques	Analysis	All the results of the critiques were considered
A.1.7.5. Transform the recommendations of the analysis into operational transformational items for improving the platform	Operational transformational items	Compliance with eAFA standards
A.1.7.6. Implement the operational transformational items	Actions for improving the platform	Functional improved platform

Activities for O8	Deliverables	Acceptance criteria
A.1.8.1. Start the project	Ads in local media	Appearance in one local news-paper
A.1.8.2. Create the project web-site	Project web-site	Functional web-site
A.1.8.3. Disseminate the project results	- Ads in local media - News posted on project web-site	Announcement of important moments and results (statistics)
A.1.8.4. Monitor the project	- Mid-terms reports - Internal audit - Change plan	Compliance with time, costs and goal

Activities for O9	Deliverables	Acceptance criteria
A.1.9.1. Finalize the project	Full functional eAFA	Functional platform

7.4. Quality planning and control (activities and responsible persons)

Activities	Responsible
Time control of activities	Deputy project manager
Cost control of activities	Financial responsible
Achievement of acceptance criteria for deliverables	Deputy project manager
Fulfilling of product specifications as contract terms	- IT software responsible - IT hardware responsible
Quality audit	Project manager

8. Project Risk Management

8.1. List of risks

Area	Risks
Financial	- budget cuts due to financial crisis - budget cuts due to shift in AFA priorities - yearly budget allotment not as planned
Human resources	- reluctance of the teaching staff, because the curricula have to be transformed in order to meet the goals and standards of the system - resistance of the admin staff, due to the effort to implement the platform
Material risks	- high rate of failures - new equipment not interoperable with existing one due to different software and hardware connectivity issues
Procedural risks	- too restrictive administrative settings for hardware - not developed standard operating procedures - changes in project timeline
Miscellaneous	- earthquakes - transformation of academy

8.2. Risks assessment matrix

Risk	Likelihood	Impact	Risk
	A	B	C = A x B
Budget cuts due to financial crisis	3	4	12
Budget cuts due to shift in AFA priorities	1	4	4
Yearly budget allotment not as planned	2	3	6
Reluctance of the teaching staff, because the curricula have to be transformed in order to meet the goals and standards of the system	3	3	9
Resistance of the admin staff, due to the effort to implement the platform	3	2	6
High rate of failures	3	2	6
New equipment not interoperable with existing one due to different software and hardware connectivity issues	1	4	4
Too restrictive administrative settings for hardware	3	3	9
Not developed standard operating procedures	2	2	4
Changes in project timeline	2	4	8
Earthquakes	1	5	5
Transformation of academy	3	5	15

8.3. Strategies for tackling major risks

Risk	Attenuation strategy
Budget cuts due to financial crisis	- provision in the contract - monitor the project
Budget cuts due to shift in AFA priorities	- do nothing
Yearly budget allotment not as planned	- framework contract - monitor the project
Reluctance of the teaching staff, because the curricula have to be transformed in order to meet the goals and standards of the system	- leadership - communication plan - emphasize the benefits of project and risks for not doing anything
Resistance of the admin staff, due to the effort to implement the platform	- leadership
High rate of failures	- contract provision - maintenance strategy - equipment insurance
New equipment not interoperable with existing one due to different software and hardware connectivity issues	- contract provision - monitor the project
Too restrictive administrative settings for hardware	- shift in security policy - new procedures for administrative areas (not classified)
Not developed standard operating procedures	- monitor the project
Changes in project timeline	- change plan
Earthquakes	- do nothing
Transformation of academy	- state the developing of eAFA as high priority in university strategy for development

Appendix no 1 to eAFA Project

Business Case for an evolutionary e-Learning Platform within the Air Force Academy

Sponsor: 'Henri Coanda' Air Force Academy (AFA) of Brasov, Romania

Purpose

The goal is to develop an integrated up-to-date e-Learning system based on the existing IT infrastructure and functioning hybrid educational methods within AFA, in order to provide the teaching staff, scientists, students, and admin personnel the required facilities to easily and securely access the educational resources, to monitor in real-time the students' progress, and to assess in a non-invasive environment the students' outcomes.

Business opportunities

There is the stated intent to decrease the overall costs in order to deal with the scarcity of the allotted resources, in the context of the budgetary restraints, reduction of admin personnel and increase in demands for the educational services.

The budgetary constraints conducted to the prioritisation of existing and forecasted resources, with the aim to assure the very core of the processes required by AFA to function above the 'alarm' threshold. The focus now is mainly toward pure educational services, detrimental to the scientific activities and other supporting actions that could proceed 'just in case' (just in case the resources are made available or just in case the failures occurred).

AFA would largely benefit from an e-Learning system fully implemented in the following areas:

- financial: the related costs with teaching activities per student would sharply decrease starting with the third year of implementation;
- educational environment: the web-based classes / coaching would be perceived by the students as more appealing and visual, allowing an increase in complexity and flexibility, with the possibility to have trans-curricula courses and the new knowledge deployed faster;
- educational resources: the possibility to expand the learning portfolio; also in an e-Learning environment, the teacher per student ratio is lower, allowing the same quality of services with shared resources;
- supporting educational resources: virtual classes would ease the processes of pooling and sharing the learning support (classrooms, multimedia support, courses in hard-copy format);
- quality assurance: an integrated IT system would help the generating of data bases about teaching staff, students, learning environment;
- communication: all the stakeholders would have access in real time to a platform for sharing information and interaction with each other.

Start date: 01/03/2012

End date: 07/25/2013

Duration: 409 days

Assessed constraints

Procedural issues regarding the Internet connections:

- allow of broadcasting within specific areas using wireless transmitters.

Human resources issues:

- reluctance of the teaching staff, because the curricula have to be transformed in order to meet the goals and standards of the system;
- resistance of the admin staff, because the effort to implement the system is huge in the second year.

Budgetary issues:

- the pressure on the budget is greater at the beginning of the project, due to the needs to improve the IT infrastructure;
- the project is longer than 1 FY, requesting for real commitment in terms of budget.

Information classified issues: the tutors and admin personnel of the e-Learning system would have to pay greater attention to the data to be broadcasted over the Internet.

WBS

ID	WBS	Task Name	Start	Finish	Cost	Resource Names
0	**0**	**RAU_eAFA v1.3**	**Tue 1/3/12**	**Fri 7/26/13**	**2,014,013.79 €**	
1	**1**	**1 Build-up an e-Learning platform within the Air Force Academy – eAFA**	**Tue 1/3/12**	**Fri 7/26/13**	**2,014,013.79 €**	
2	**1.1**	**1.1 Develop the integrated e-Learning platform**	**Tue 1/3/12**	**Fri 9/7/12**	**1,963,212.32 €**	
3	**1.1.1**	**1.1.1 Acquire the e-Learning platform**	**Tue 1/3/12**	**Mon 4/30/12**	**305,099.87 €**	
4	1.1.1.1	1.1.1.1 Develop the product specifications	Tue 1/3/12	Mon 1/9/12	466.16 €	Responsible with IT hardware[50%],Responsible with IT software,Project manager,Financial responsible,Legal advisor,Deputy project manager[50%],PC1 with Office suite[1],PC2 with Office suite[1],Printer[1],Copier[1],Internet services[1],Phone 1[1],Phone ...
5	1.1.1.2	1.1.1.2 Identify the IT HW in inventory to be used for the e-Learning platform	Tue 1/10/12	Fri 1/13/12	180.56 €	Responsible with IT hardware,PC3 with Office suite[1],Internet services[1],Phone 4[1],Phone services[1]
6	1.1.1.3	1.1.1.3 Start the acquisition procedure	Tue 1/10/12	Mon 1/16/12	1,285.70 €	Chief of Public Acquisition Dep,Legal advisor,PC6 with Office suite[1],Phone 5[1],Phone 4[1],Fax machine[1],Fax services[1],Internet services[1],Mailing services[1],Outsourced Advertising services
7	1.1.1.4	1.1.1.4 Do the auction	Tue 1/17/12	Mon 2/13/12	850.06 €	Chief of Public Acquisition Dep,Phone 1[1],Phone services[1]
8	1.1.1.5	1.1.1.5 Evaluate the offers	Tue 2/14/12	Mon 2/20/12	1,000.86 €	Project manager,Deputy project manager,Chief of Public Acquisition Dep,Responsible with IT hardware,Responsible with IT software,Financial responsible,Legal advisor[50%],PC1 with Office suite[1],Phone 1[1],Phone 2[1],Phone 3[1],Phone 4[1],Phone 5[1],Ph...
9	1.1.1.6	1.1.1.6 Announce the winning offer	Mon 2/20/12	Mon 2/20/12	5.00 €	Project manager,AFA web-site[0],Internet services[0]
10	1.1.1.7	1.1.1.7 Negotiate the contract	Tue 2/21/12	Tue 2/28/12	1,056.26 €	Project manager,Deputy project manager,Chief of Public Acquisition Dep,Responsible with IT hardware,Responsible with IT software,Financial responsible,Legal advisor,PC1 with Office suite[1],Internet services[1],Printer[1],Phone 1[1],Phone 2[1],Phone 3[...
11	1.1.1.8	1.1.1.8 Finalize the acquisition procedure by signing the contract	Wed 2/29/12	Wed 2/29/12	205.21 €	AFA commander,Project manager,Financial responsible,Legal advisor,Phone 1[1],Phone 2[1],Phone 3[1],Phone 4[1],Phone services[1],Internet services[1],AFA web-site[1]
12	1.1.1.9	1.1.1.9 Delivery of the new items of the e-Learning platform	Thu 3/1/12	Mon 4/30/12	300,050.06 €	Phone 5[1],Phone services[1],Outsourced services for developing project (HW delivery)
13	**1.1.2**	**1.1.2 Mount the componentix of the platform**	**Thu 3/1/12**	**Fri 6/22/12**	**553,401.86 €**	
14	1.1.2.1	1.1.2.1 Develop the SOPs	Thu 3/1/12	Mon 4/30/12	150,050.06 €	Phone 4[1],Phone services[1],Outsourced services for developing project (SOP developing)
15	1.1.2.2	1.1.2.2 Identify the locations of the e-Learning HW items	Thu 3/1/12	Fri 3/30/12	115.00 €	Responsible with IT hardware,PC6 with Office suite[1],Printer[1],Ream 2 of printed papers[1]
16	1.1.2.3	1.1.2.3 Make available the identified locations	Mon 4/2/12	Mon 4/30/12	260.06 €	Responsible with IT hardware,Phone 3[1],Phone services[1]

ID	WBS	Task Name	Start	Finish	Cost	Resource Names
16	1.1.2.3	1.1.2.3 Make available the identified locations	Mon 4/2/12	Mon 4/30/12	260.06 €	Responsible with IT hardware,Phone 3[1],Phone services[1]
17	1.1.2.4	1.1.2.4 Overhaul the existing HW items to be re-assigned for the e-Learning platform	Thu 3/1/12	Mon 4/30/12	2,680.56 €	Responsible with IT hardware[50%],PC5 with Office suite[1],Phone 2[1],Phone services[1],Internet services[1],Outsourced IT Maintenance services[50%]
18	1.1.2.5	1.1.2.5 Make available the existing in inventory HW items previously identified to be refurbished	Thu 3/1/12	Fri 3/9/12	135.56 €	Responsible with IT hardware,PC4 with Office suite[1],Phone 1[1],Phone services[1],Internet services[1]
19	1.1.2.6	1.1.2.6 Refurbish the existing in inventory HW items	Mon 3/12/12	Mon 4/30/12	100,110.66 €	Outsourced services for developing project (HW refurbishing),PC6 with Office suite[1],Phone 2[1],Phone services[1],Internet services[1],Fax services[1],Fax machine[1]
20	1.1.2.7	1.1.2.7 Mount the HW items to their locations	Tue 5/1/12	Fri 6/29/12	300,050.06 €	Outsourced services for developing project (HW mounting),Phone 3[1],Phone services[1]
21	**1.1.3**	**1.1.3 Implement the Learning Management System software**	**Mon 7/2/12**	**Tue 8/7/12**	**301,110.38 €**	
22	1.1.3.1	1.1.3.1 Install the LMS software package	Mon 7/2/12	Tue 7/31/12	150,050.06 €	Outsourced services for developing project (SW installing),Phone 4[1],Phone services[1]
23	1.1.3.2	1.1.3.2 Develop the SOPs for activities related to implementing the LMS software	Mon 7/2/12	Tue 7/31/12	150,050.06 €	Outsourced services for developing project (SOP developing),Phone 5[1],Phone services[1]
24	1.1.3.3	1.1.3.3 Test the initial functionality of the mounted platform	Wed 8/1/12	Tue 8/7/12	1,010.26 €	Deputy project manager,Responsible with IT hardware,Responsible with IT software,Platform admins,Domain admins,Tutors,eAFA platform[1],Internet services[1],Phone 1[1],Phone 2[1],Phone 3[1],Phone 4[1],Phone 5[1],Phone services[1]
25	**1.1.4**	**1.1.4 Implement the integrated data base**	**Wed 8/8/12**	**Fri 8/31/12**	**301,110.38 €**	
26	1.1.4.1	1.1.4.1 Install the integrated data base	Wed 8/8/12	Fri 8/24/12	150,050.06 €	Outsourced services for developing project (SW installing),Phone 1[1],Phone services[1]
27	1.1.4.2	1.1.4.2 Develop the SOPs for activities related to integrated data base	Wed 8/8/12	Fri 8/24/12	150,050.06 €	Outsourced services for developing project (SOP developing),Phone 2[1],Phone services[1]
28	1.1.4.3	1.1.4.3 Test the functionality of the integrated systems	Mon 8/27/12	Fri 8/31/12	1,010.26 €	Deputy project manager,Responsible with IT hardware,Responsible with IT software,Platform admins,Domain admins,Tutors,eAFA platform[1],Internet services[1],Phone 1[1],Phone 2[1],Phone 3[1],Phone 4[1],Phone 5[1],Phone services[1]
29	**1.1.5**	**1.1.5 Implement the communicational system to be hosted by the platform**	**Wed 8/8/12**	**Fri 9/7/12**	**301,110.38 €**	
30	1.1.5.1	1.1.5.1 Install the elements of the communicational system	Wed 8/8/12	Fri 8/31/12	150,050.06 €	Outsourced services for developing project (SW installing),Phone 1[1],Phone services[1]

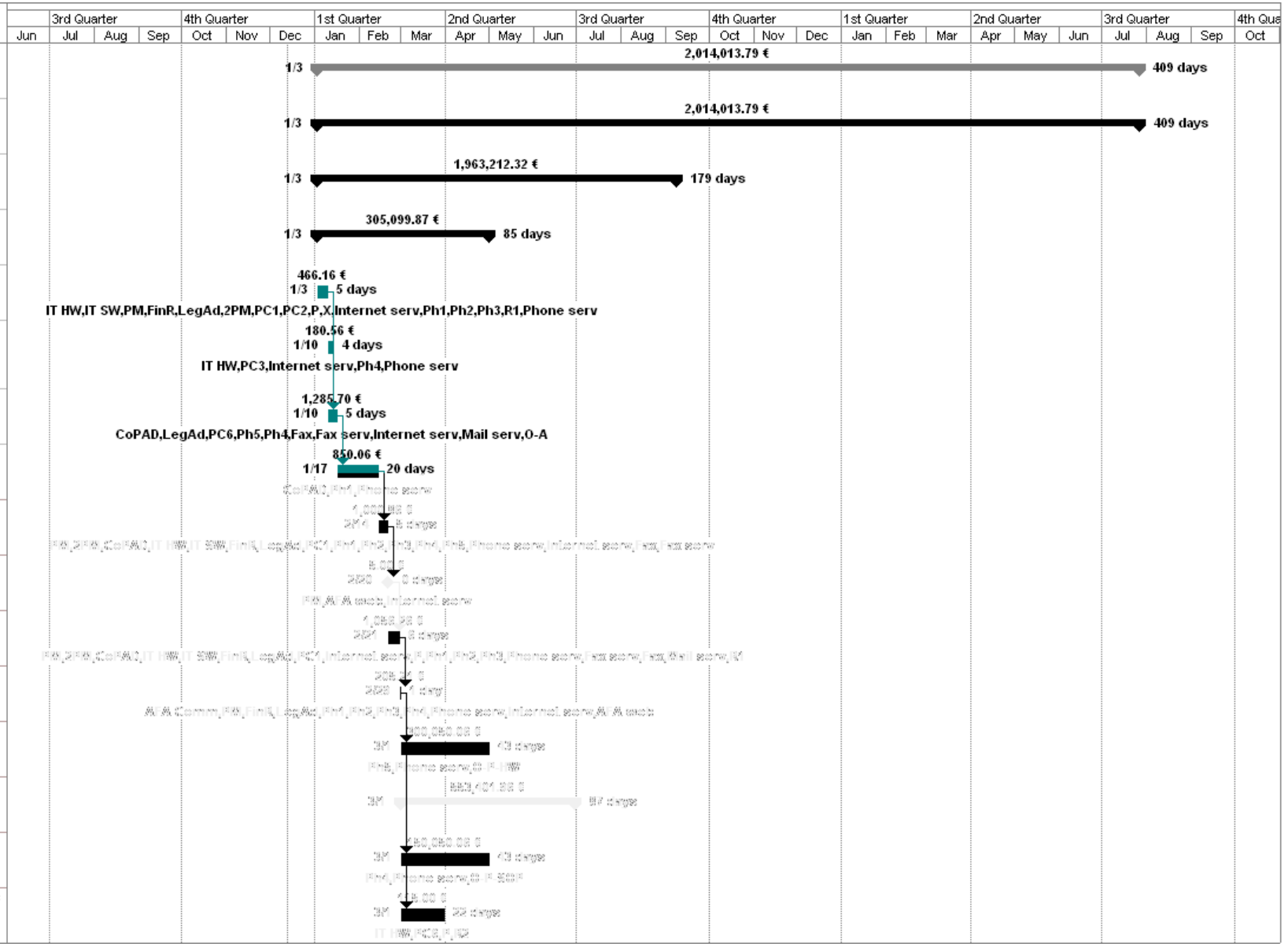
ID	WBS	Task Name	Start	Finish	Cost	Resource Names
31	1.1.5.2	1.1.5.2 Develop the SOPs for activities related to integrated communicational system	Wed 8/8/12	Fri 8/31/12	150,050.06 €	Outsourced services for developing project (SOP developing),Phone 2[1],Phone services[1]
32	1.1.5.3	1.1.5.3 Test the functionality of the eAFA	Mon 9/3/12	Fri 9/7/12	1,010.26 €	Deputy project manager,Responsible with IT hardware,Responsible with IT software,Platform admins,Domain admins,Tutors,eAFA platform[1],Internet services[1],Phone 1[1],Phone 2[1],Phone 3[1],Phone 4[1],Phone 5[1],Phone services[1]
33	**1.1.6**	**1.1.6 Train the critical users of the platform**	**Thu 3/1/12**	**Wed 8/8/12**	**201,379.35 €**	
34	1.1.6.1	1.1.6.1 Develop the tutorials for operating and maintaining the platform	Thu 3/1/12	Tue 7/31/12	150,050.06 €	Outsourced services for developing project (SOP developing),Phone 3[1],Phone services[1]
35	1.1.6.2	1.1.6.2 Identify the personnel for the critical positions (admins and tutors)	Thu 3/1/12	Thu 3/1/12	79.11 €	Deputy project manager[25%],Chief of Human Resources Department,PC1 with Office suite[1],PC2 with Office suite[1],Phone 5[1],Phone 4[1],Phone services[1]
36	1.1.6.3	1.1.6.3 Assign the persons for the critical positions	Fri 3/2/12	Fri 3/2/12	150.06 €	AFA commander,Chief of Human Resources Department,PC2 with Office suite[1],Printer[1],Phone 1[1],Phone services[1],Ream 3 of printed papers[1]
37	1.1.6.4	1.1.6.4 Train the critical personnel	Mon 3/5/12	Tue 7/31/12	50,050.06 €	Outsourced services for developing project (trainling),Phone 2[1],Phone services[1]
38	1.1.6.5	1.1.6.5 Create user accounts for all critical personnel	Wed 8/1/12	Wed 8/8/12	1,050.06 €	Outsourced services for developing project (create user accounts),Phone 3[1],Phone services[1]
39	**1.2**	**1.2 Create the content-based Virtual Library**	**Thu 3/1/12**	**Fri 10/5/12**	**7,273.37 €**	
40	1.2.1	1.2.1 Identify the resources to be hosted by Virtual Library	Thu 3/1/12	Fri 9/7/12	1,247.76 €	Project manager,Deputy project manager,Internet services[1],PC1 with Office suite[1],PC2 with Office suite[1],PC3 with Office suite[1],PC4 with Office suite[1],PC5 with Office suite[1],PC6 with Office suite[1],Phone 1[1],Phone 2[1],Phone 3[1],Phone 4[1...
41	1.2.2	1.2.2 Develop the SOPs for activities related to identifying the resources fitted for Virtual Library	Thu 3/1/12	Fri 9/7/12	4,529.61 €	Deputy project manager,Tutors,PC5 with Office suite[1],PC6 with Office suite[1],Internet services[1],Phone 4[1],Phone 5[1],Phone services[1],Printer[1],Ream 6 of printed papers (3 pieces)[1]
42	1.2.3	1.2.3 Transform the identified package of resources into standardized format for eAFA	Mon 9/10/12	Fri 9/28/12	1,028.00 €	Deputy project manager,Platform admins,Domain admins,eAFA platform[1],Internet services[1]
43	1.2.4	1.2.4 Implement the standardized package of resources to eAFA	Mon 10/1/12	Fri 10/5/12	240.00 €	Deputy project manager,Platform admins,eAFA platform[1],Internet services[1]
44	1.2.5	1.2.5 Develop the tutorials for developing Virtual Library	Mon 10/1/12	Fri 10/5/12	228.00 €	Deputy project manager,Platform admins,eAFA platform[1],Internet services[1]
45	1.3	1.3 Achieve IOC	Fri 10/5/12	Fri 10/5/12	5.00 €	AFA web-site[0],Internet services[0]

ID	WBS	Task Name	Start	Finish	Cost	Resource Names
46	**1.4**	**1.4 Create user accounts for all students**	**Mon 10/8/12**	**Fri 11/30/12**	**4,012.00 €**	
47	1.4.1	1.4.1 Create a modular course for training the students in using eAFA	Mon 10/8/12	Wed 10/31/12	1,860.00 €	Deputy project manager,Platform admins,Domain admins,Tutors,eAFA platform[1],Internet services[1]
48	1.4.2	1.4.2 Create user accounts for the students	Mon 10/8/12	Wed 10/31/12	640.00 €	Deputy project manager,Platform admins,eAFA platform[1],Internet services[1]
49	1.4.3	1.4.3 Train the users of eAFA	Thu 11/1/12	Fri 11/30/12	1,512.00 €	Deputy project manager,Platform admins,Domain admins,eAFA platform[1],Internet services[1]
50	**1.5**	**1.5 Create customized on-line courses for AFA personnel**	**Thu 3/1/12**	**Mon 12/31/12**	**10,552.16 €**	
51	1.5.1	1.5.1 Identify the needs for courses hosted by eAFA	Thu 3/1/12	Fri 9/28/12	7,438.16 €	Deputy project manager,Chief of Human Resources Department,1 person delegated from military staff,Project manager,Internet services[1],PC1 with Office suite[1],PC2 with Office suite[1],PC3 with Office suite[1],Phone 1[1],Phone 2[1],Phone 3[1],Phone ser...
52	1.5.2	1.5.2 Develop the courses hosted by eAFA	Mon 10/1/12	Fri 11/30/12	1,950.00 €	Project manager,Deputy project manager,Tutors,eAFA platform[1],Internet services[1]
53	1.5.3	1.5.3 Transform the courses into standard format	Mon 12/3/12	Fri 12/14/12	708.00 €	Deputy project manager,Domain admins,Platform admins,eAFA platform[1],Internet services[1]
54	1.5.4	1.5.4 Implement the newly developed and formatted courses on eAFA	Mon 12/17/12	Mon 12/31/12	456.00 €	Deputy project manager,Platform admins,eAFA platform[1],Internet services[1]
55	1.6	1.6 Achieve FOC	Mon 12/31/12	Mon 12/31/12	5.00 €	Project manager,AFA web-site[0],Internet services[0]
56	**1.7**	**1.7 Evaluate and improve the platform through course critiques given by its users and critical analysis done by teaching staff**	**Mon 12/3/12**	**Thu 7/25/13**	**20,194.00 €**	
57	1.7.1	1.7.1 Conduct 4 on-line courses	Tue 1/1/13	Fri 5/31/13	11,178.00 €	Project manager,Tutors,Platform admins,Domain admins,eAFA platform[1],Internet services[1]
58	1.7.2	1.7.2 Develop courses critiques	Mon 12/3/12	Mon 12/31/12	816.00 €	Deputy project manager,Tutors,eAFA platform[1],Internet services[1]
59	1.7.3	1.7.3 Conduct critical analysis	Tue 1/1/13	Mon 5/27/13	3,840.00 €	Deputy project manager,Tutors,eAFA platform[1],Internet services[1]
60	1.7.4	1.7.4 Analyse the results of critiques	Tue 5/28/13	Mon 6/3/13	260.00 €	Project manager,Deputy project manager,eAFA platform[1],Internet services[1]

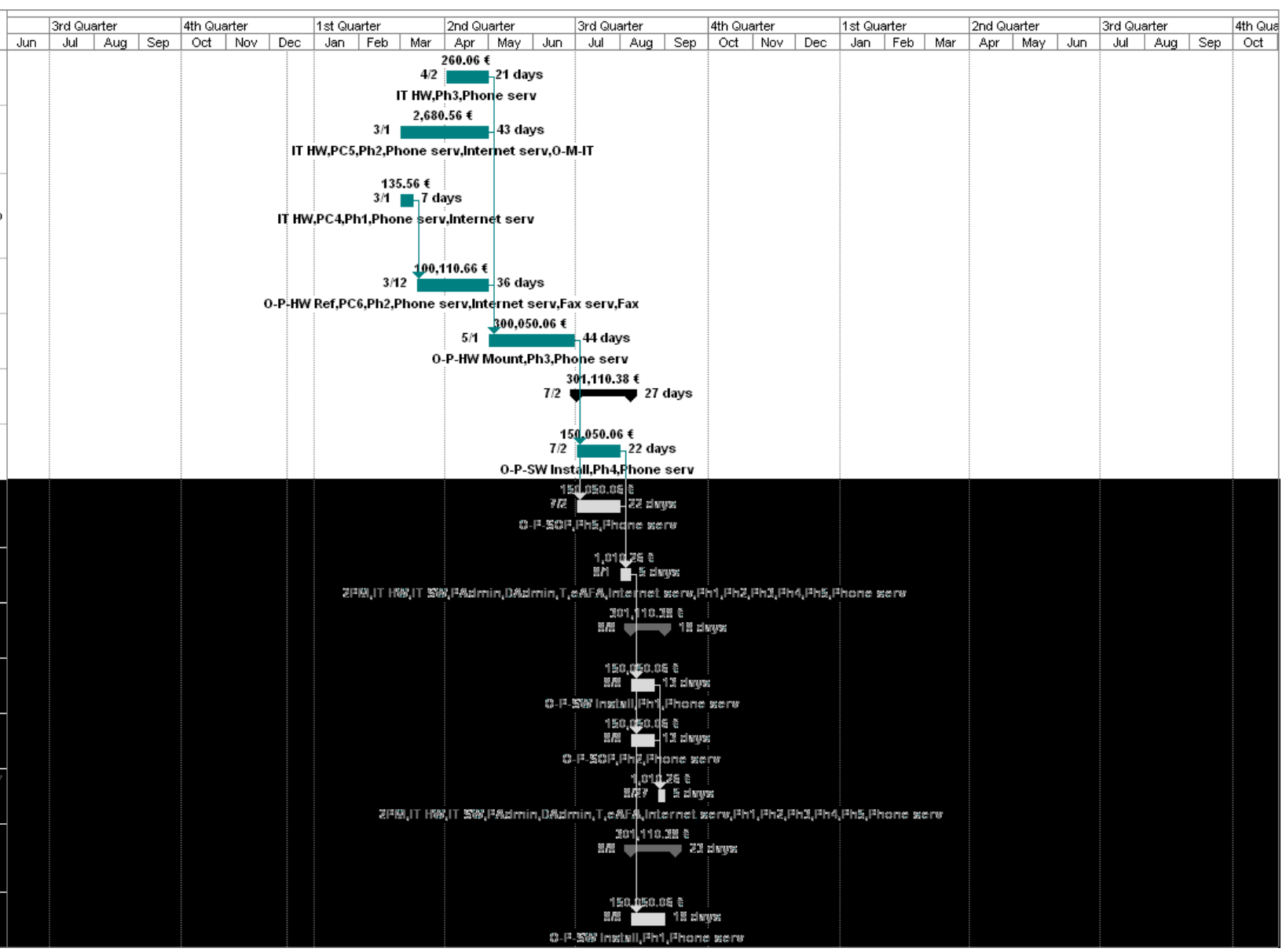
ID	WBS	Task Name	Start	Finish	Cost	Resource Names
61	1.7.5	1.7.5 Transform the recommendations of the analysis into operational transformational items for improving the platform	Tue 6/4/13	Mon 6/24/13	1,740.00 €	Deputy project manager,Tutors,Platform admins,Domain admins,eAFA platform[1],Internet services[1]
62	1.7.6	1.7.6 Implement the operational transformational items	Tue 6/25/13	Thu 7/25/13	2,360.00 €	Deputy project manager,Domain admins,Platform admins,Tutors,eAFA platform[1],Internet services[1]
63	**1.8**	**1.8 Manage the project**	**Tue 1/3/12**	**Fri 7/26/13**	**8,754.94 €**	
64	1.8.1	1.8.1 Start the project	Tue 1/3/12	Tue 1/3/12	0.00 €	Project manager
65	1.8.2	1.8.2 Create the project web-site	Tue 1/3/12	Mon 1/16/12	350.50 €	Project manager,Deputy project manager,Responsible with IT software,Internet services[1],PC1 with Office suite[1]
66	1.8.3	1.8.3 Disseminate the project results	Tue 1/3/12	Fri 7/26/13	2,965.07 €	Project manager,Deputy project manager,Internet services[1],PC2 with Office suite[1],Printer[1],Ream 5 of printed papers[1],Phone 1[1],Phone services[1]
67	1.8.4	1.8.4 Monitor the project	Tue 1/3/12	Fri 7/26/13	5,439.36 €	eAFA platform[1],Deputy project manager,Legal advisor,Financial responsible,Fax machine[1],Fax services[1],Internet services[1],PC4 with Office suite[1],PC5 with Office suite[1],PC6 with Office suite[1],Phone 1[1],Phone 2[1],Phone 3[1],Phone 4[1],Phone...
68	1.9	1.9 Finalize the project	Fri 7/26/13	Fri 7/26/13	5.00 €	Project manager,AFA web-site[0],Internet services[0]

Gantt Chart

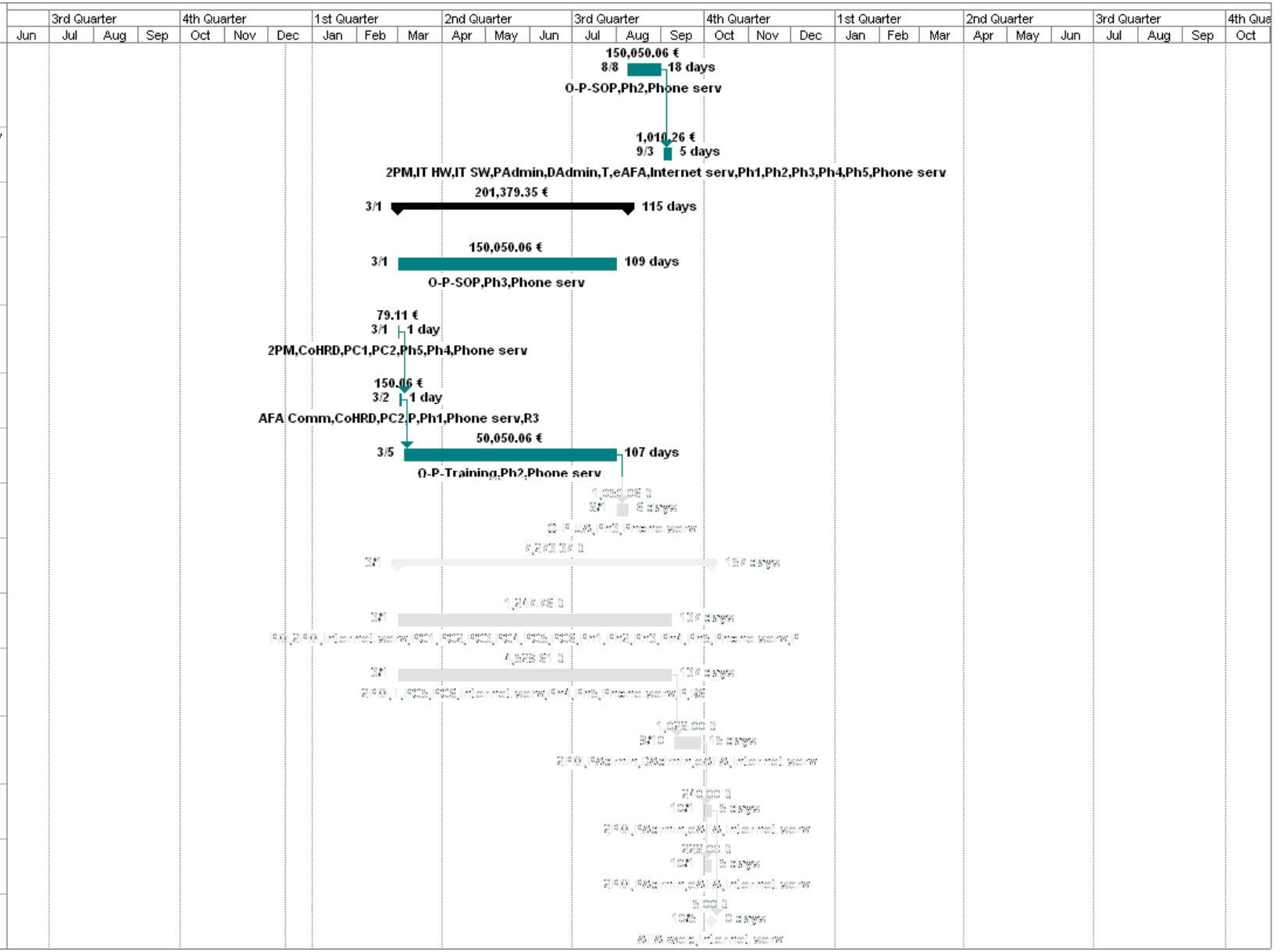
ID	Task Name
0	RAU_eAFA v1.3
1	1 Build-up an e-Learning platform within the Air Force Academy – eAFA
2	1.1 Develop the integrated e-Learning platform
3	1.1.1 Acquire the e-Learning platform
4	1.1.1.1 Develop the product specifications
5	1.1.1.2 Identify the IT HW in inventory to be used for the e-Learning platform
6	1.1.1.3 Start the acquisition procedure
7	1.1.1.4 Do the auction
8	1.1.1.5 Evaluate the offers
9	1.1.1.6 Announce the winning offer
10	1.1.1.7 Negotiate the contract
11	1.1.1.8 Finalize the acquisition procedure by signing the contract
12	1.1.1.9 Delivery of the new items of the e-Learning platform
13	1.1.2 Mount the components of the platform
14	1.1.2.1 Develop the SOPs
15	1.1.2.2 Identify the locations of the e-Learning HW items



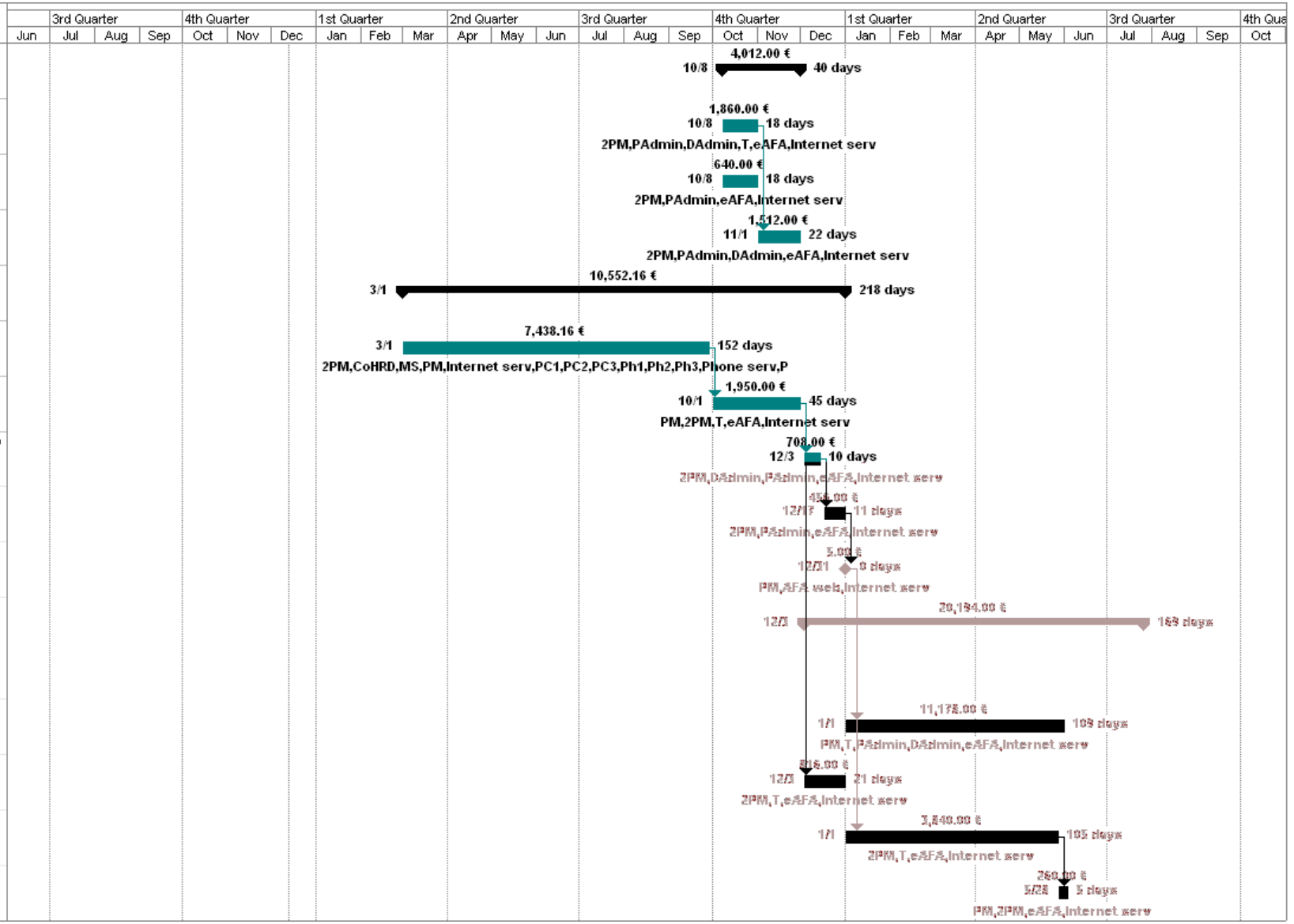
ID	Task Name
16	1.1.2.3 Make available the identified locations
17	1.1.2.4 Overhaul the existing HW items to be re-assigned for the e-Learning platform
18	1.1.2.5 Make available the existing in inventory HW items previously identified to be refurbished
19	1.1.2.6 Refurbish the existing in inventory HW items
20	1.1.2.7 Mount the HW items to their locations
21	**1.1.3 Implement the Learning Management System software**
22	1.1.3.1 Install the LMS software package
23	1.1.3.2 Develop the SOPs for activities related to implementing the LMS software
24	1.1.3.3 Test the initial functionality of the mounted platform
25	**1.1.4 Implement the integrated data base**
26	1.1.4.1 Install the integrated data base
27	1.1.4.2 Develop the SOPs for activities related to integrated data base
28	1.1.4.3 Test the functionality of the integrated systems
29	**1.1.5 Implement the communicational system to be hosted by the platform**
30	1.1.5.1 Install the elements of the communicational system



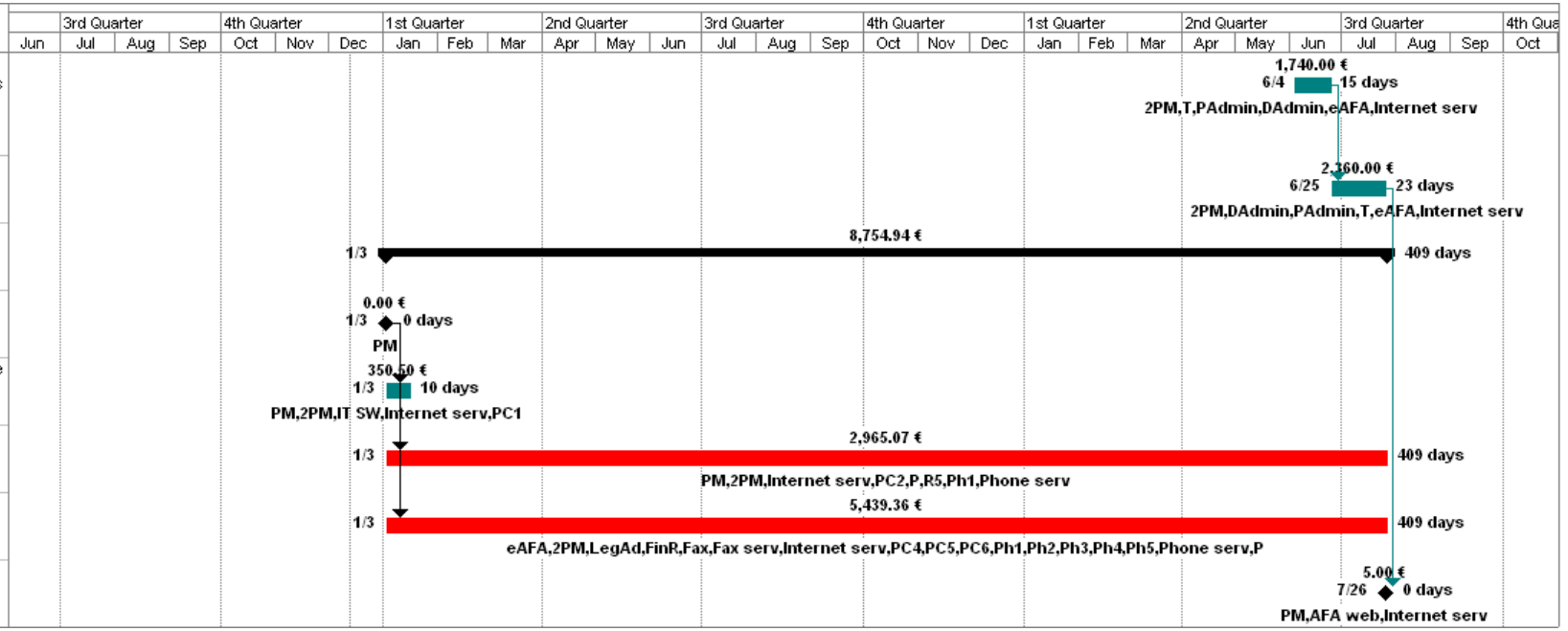
ID	Task Name
31	1.1.5.2 Develop the SOPs for activities related to integrated communicational system
32	1.1.5.3 Test the functionality of the eAFA
33	**1.1.6 Train the critical users of the platform**
34	1.1.6.1 Develop the tutorials for operating and maintaining the platform
35	1.1.6.2 Identify the personnel for the critical positions (admins and tutors)
36	1.1.6.3 Assign the persons for the critical positions
37	1.1.6.4 Train the critical personnel
38	1.1.6.5 Create user accounts for all critical personnel
39	**1.2 Create the content-based Virtual Library**
40	1.2.1 Identify the resources to be hosted by Virtual Library
41	1.2.2 Develop the SOPs for activities related to identifying the resources fitted for Virtual Library
42	1.2.3 Transform the identified package of resources into standardized format for eAFA
43	1.2.4 Implement the standardized package of resources to eAFA
44	1.2.5 Develop the tutorials for developing Virtual Library
45	1.3 Achieve IOC



ID	Task Name
46	**1.4 Create user accounts for all students**
47	1.4.1 Create a modular course for training the students in using eAFA
48	1.4.2 Create user accounts for the students
49	1.4.3 Train the users of eAFA
50	**1.5 Create customized on-line courses for AFA personnel**
51	1.5.1 Identify the needs for courses hosted by eAFA
52	1.5.2 Develop the courses hosted by eAFA
53	1.5.3 Transform the courses into standard format
54	1.5.4 Implement the newly developed and formatted courses on eAFA
55	1.6 Achieve FOC
56	**1.7 Evaluate and improve the platform through course critiques given by its users and critical analysis done by teaching staff**
57	1.7.1 Conduct 4 on-line courses
58	1.7.2 Develop courses critiques
59	1.7.3 Conduct critical analysis
60	1.7.4 Analyse the results of critiques



ID	Task Name
61	1.7.5 Transform the recommendations of the analysis into operational transformational items for improving the platform
62	1.7.6 Implement the operational transformational items
63	**1.8 Manage the project**
64	1.8.1 Start the project
65	1.8.2 Create the project web-site
66	1.8.3 Disseminate the project results
67	1.8.4 Monitor the project
68	1.9 Finalize the project



Human Resource Usage Chart

ID	Resource Name	Work	Details	'1	January 1		April 1			July 1		October 1		January 1		April 1			July 1	
				10/31	12/12	1/23	3/5	4/16	5/28	7/9	8/20	10/1	11/12	12/24	2/4	3/18	4/29	6/	0	7/22
1	Project manager	573 hrs	Work		26.98h	32.08h	46.72h	46.72h	46.72h	46.72h	45.83h	44.97h	29.97h	38.97h	44.97h	44.97h	59.97h	14	97h	2.5h
2	Deputy project manager	1,515 hrs	Work		58h	98.25h	123.73h	123.73h	123.73h	128.73h	104.85h	119.5h	104.5h	96h	90h	90h	117h	123h		14h
3	Responsible with IT hardware	477 hrs	Work		26h	100h	165h	66h		40h	80h									
4	Responsible with IT software	268 hrs	Work		60h	88h				40h	80h									
5	Financial responsible	455 hrs	Work		24h	66h	30h	30h	30h	30h	30h	30h	30h	30h	30h	30h	30h	30h	30h	5h
6	**Legal advisor**	**461 hrs**	Work		24h	72h	30h	30h	30h	30h	30h	30h	30h	30h	30h	30h	30h	30h	30h	5h
7	Chief of Public Acquisition Dep	288 hrs	Work		72h	216h														
8	AFA commander	12 hrs	Work			12h														
9	Platform admins	2,128 hrs	Work							40h	200h	424h	240h	240h	240h	240h	232h	240h	32h	
10	Domain admins	1,816 hrs	Work							40h	200h	200h	200h	192h	240h	240h	232h	240h	32h	
11	Tutors	3,904 hrs	Work			16h	240h	240h	240h	280h	200h	384h	240h	432h	480h	480h	400h	240h	32h	
12	Military staff representati	0 hrs	Work																	
13	Chief of Human Resources Department	311 hrs	Work			11h	60h	60h	60h	60h	60h									
14	1 person delegated from military staff	1,216 hrs	Work			16h	240h	240h	240h	240h	240h									

Human Resource Costs Chart

ID	Resource Name	Group	Max. Units	Peak	Std. Rate	Ovt. Rate	Cost	Work
1	Project manager	Project Team	100%	69%	6.00 €/hr	12.00 €/hr	3,438.01 €	573 hrs
2	Deputy project manager	Project Team	100%	88%	4.00 €/hr	8.00 €/hr	6,060.00 €	1,515 hrs
3	Responsible with IT hardware	Project Team	100%	100%	5.00 €/hr	10.00 €/hr	2,385.00 €	477 hrs
4	Responsible with IT software	Project Team	100%	100%	5.00 €/hr	10.00 €/hr	1,340.00 €	268 hrs
5	Financial responsible	Project Team	100%	63%	5.00 €/hr	10.00 €/hr	2,275.00 €	455 hrs
6	**Legal advisor**	**AFA Staff**	**100%**	**113%**	**4.00 €/hr**	**8.00 €/hr**	**1,844.00 €**	**461 hrs**
7	Chief of Public Acquisition Dep	AFA Staff	100%	100%	5.00 €/hr	10.00 €/hr	1,440.00 €	288 hrs
8	AFA commander	AFA Staff	100%	100%	10.00 €/hr	20.00 €/hr	120.00 €	12 hrs
9	Platform admins	AFA Staff	200%	200%	4.00 €/hr	8.00 €/hr	8,512.00 €	2,128 hrs
10	Domain admins	AFA Staff	400%	100%	4.00 €/hr	8.00 €/hr	7,264.00 €	1,816 hrs
11	Tutors	AFA Staff	800%	200%	4.00 €/hr	8.00 €/hr	15,616.00 €	3,904 hrs
12	Military staff representative	AFA Staff	100%	0%	4.00 €/hr	8.00 €/hr	0.00 €	0 hrs
13	Chief of Human Resources Department	AFA Staff	100%	75%	5.00 €/hr	10.00 €/hr	1,555.00 €	311 hrs
14	1 person delegated from military staff	AFA Staff	100%	100%	4.00 €/hr	8.00 €/hr	4,864.00 €	1,216 hrs

Resource Pool Sheet

ID	Resource Name	Group	Max. Units	Peak	Std. Rate	Ovt. Rate	Cost	Work
1	Project manager	Project Team	100%	69%	6.00 €/hr	12.00 €/hr	3,438.01 €	573 hrs
2	Deputy project manager	Project Team	100%	88%	4.00 €/hr	8.00 €/hr	6,060.00 €	1,515 hrs
3	Responsible with IT hardware	Project Team	100%	100%	5.00 €/hr	10.00 €/hr	2,385.00 €	477 hrs
4	Responsible with IT software	Project Team	100%	100%	5.00 €/hr	10.00 €/hr	1,340.00 €	268 hrs
5	Financial responsible	Project Team	100%	63%	5.00 €/hr	10.00 €/hr	2,275.00 €	455 hrs
6	**Legal advisor**	**AFA Staff**	**100%**	**113%**	**4.00 €/hr**	**8.00 €/hr**	**1,844.00 €**	**461 hrs**
7	Chief of Public Acquisition Dep	AFA Staff	100%	100%	5.00 €/hr	10.00 €/hr	1,440.00 €	288 hrs
8	AFA commander	AFA Staff	100%	100%	10.00 €/hr	20.00 €/hr	120.00 €	12 hrs
9	Platform admins	AFA Staff	200%	200%	4.00 €/hr	8.00 €/hr	8,512.00 €	2,128 hrs
10	Domain admins	AFA Staff	400%	100%	4.00 €/hr	8.00 €/hr	7,264.00 €	1,816 hrs
11	Tutors	AFA Staff	800%	200%	4.00 €/hr	8.00 €/hr	15,616.00 €	3,904 hrs
12	Military staff representative	AFA Staff	100%	0%	4.00 €/hr	8.00 €/hr	0.00 €	0 hrs
13	Chief of Human Resources Department	AFA Staff	100%	75%	5.00 €/hr	10.00 €/hr	1,555.00 €	311 hrs
14	1 person delegated from military staff	AFA Staff	100%	100%	4.00 €/hr	8.00 €/hr	4,864.00 €	1,216 hrs
15	PC1 with Office suite			0/day	0.50 €		3.50 €	7
16	PC2 with Office suite			0/day	0.50 €		3.00 €	6
17	PC3 with Office suite			0/day	0.50 €		1.50 €	3
18	PC4 with Office suite			0/day	0.50 €		1.50 €	3
19	PC5 with Office suite			0/day	0.50 €		2.00 €	4
20	PC6 with Office suite			0/day	0.50 €		3.00 €	6
21	Printer			0/day	0.50 €		4.50 €	9
22	Copier			0/day	0.50 €		0.50 €	1
23	Phone 1			0/day	0.05 €		0.80 €	16
24	Phone 2			0/day	0.05 €		0.75 €	15
25	Phone 3			0/day	0.05 €		0.70 €	14
26	Phone 4			0/day	0.05 €		0.65 €	13
27	Phone 5			0/day	0.05 €		0.55 €	11
28	Fax machine			0/day	0.05 €		0.25 €	5
29	Internet services			0/day	50.00 €		1,650.00 €	33
30	Phone services			0/day	50.00 €		1,600.32 €	32
31	Fax services			0/day	10.00 €		50.25 €	5
32	Mailing services			0/day	0.00 €		10.00 €	2
33	AFA web-site			0/day	0.00 €		25.00 €	1
34	Outsourced services for developing project (HW delivery)		100%	100%	0.00 €/hr	0.00 €/hr	300,000.00 €	344 hrs
35	Outsourced services for developing project (SOP developing)		100%	50%	0.00 €/hr	0.00 €/hr	750,000.00 €	301 hrs
36	Outsourced services for developing project (HW refurbishing)		100%	100%	0.00 €/hr	0.00 €/hr	100,000.00 €	288 hrs
37	Outsourced services for developing project (HW mounting)		100%	100%	0.00 €/hr	0.00 €/hr	300,000.00 €	352 hrs
38	Outsourced services for developing project (SW installing)		100%	100%	0.00 €/hr	0.00 €/hr	450,000.00 €	269 hrs
39	Outsourced services for developing project (trainling)		100%	100%	0.00 €/hr	0.00 €/hr	50,000.00 €	856 hrs
40	Outsourced services for developing project (create user accounts)		100%	100%	0.00 €/hr	0.00 €/hr	1,000.00 €	48 hrs
41	Outsourced IT Maintenance services		100%	50%	10.00 €/hr	20.00 €/hr	1,720.00 €	172 hrs
42	eAFA platform			0/day	10.00 €		190.00 €	19
43	Ream 1 of printed papers			0/day	0.00 €		8.00 €	2
44	Ream 2 of printed papers			0/day	0.00 €		4.00 €	1
45	Ream 3 of printed papers			0/day	0.00 €		4.00 €	1
46	Ream 4 of printed papers			0/day	0.00 €		0.00 €	0
47	Ream 5 of printed papers			0/day	0.00 €		4.00 €	1
48	Ream 6 of printed papers (3 pieces)			0/day	0.00 €		12.00 €	1
49	Ream 7 of printed papers (3 pieces)			0/day	0.00 €		0.00 €	0
50	Ream 8 of printed papers (3 pieces)			0/day	0.00 €		0.00 €	0
51	Outsourced Advertising services		100%	100%	0.00 €/hr	0.00 €/hr	1,000.00 €	40 hrs

Cost Breakdown Chart

ID	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
0	**RAU_eAFA v1.3**	**409 days**	**Tue 1/3/12**	**Fri 7/26/13**	**0%**	**2,014,013.79 €**	**16,094 hrs**
1	**Build-up an e-Learning platform within the Air Force Academy – eAFA**	**409 days**	**Tue 1/3/12**	**Fri 7/26/13**	**0%**	**2,014,013.79 €**	**16,094 hrs**
2	**Develop the integrated e-Learning platform**	**179 days**	**Tue 1/3/12**	**Fri 9/7/12**	**0%**	**1,963,212.32 €**	**4,234 hrs**
3	**Acquire the e-Learning platform**	**85 days**	**Tue 1/3/12**	**Mon 4/30/12**	**0%**	**305,099.87 €**	**1,073 hrs**
4	Develop the product specifications	5 days	Tue 1/3/12	Mon 1/9/12	0%	466.16 €	75 hrs
	Project manager		*Tue 1/3/12*	*Mon 1/9/12*		*60.00 €*	*10 hrs*
	Deputy project manager		*Tue 1/3/12*	*Mon 1/9/12*		*80.00 €*	*20 hrs*
	Responsible with IT hardware		*Tue 1/3/12*	*Mon 1/9/12*		*50.00 €*	*10 hrs*
	Responsible with IT software		*Tue 1/3/12*	*Mon 1/9/12*		*100.00 €*	*20 hrs*
	Financial responsible		*Tue 1/3/12*	*Mon 1/9/12*		*50.00 €*	*10 hrs*
	Legal advisor		*Tue 1/3/12*	*Mon 1/9/12*		*20.00 €*	*5 hrs*
	PC1 with Office suite		*Tue 1/3/12*	*Mon 1/9/12*		*0.50 €*	*1*
	PC2 with Office suite		*Tue 1/3/12*	*Mon 1/9/12*		*0.50 €*	*1*
	Printer		*Tue 1/3/12*	*Mon 1/9/12*		*0.50 €*	*1*
	Copier		*Tue 1/3/12*	*Mon 1/9/12*		*0.50 €*	*1*
	Phone 1		*Tue 1/3/12*	*Mon 1/9/12*		*0.05 €*	*1*
	Phone 2		*Tue 1/3/12*	*Mon 1/9/12*		*0.05 €*	*1*
	Phone 3		*Tue 1/3/12*	*Mon 1/9/12*		*0.05 €*	*1*
	Internet services		*Tue 1/3/12*	*Mon 1/9/12*		*50.00 €*	*1*
	Phone services		*Tue 1/3/12*	*Mon 1/9/12*		*50.01 €*	*1*
	Ream 1 of printed papers		*Tue 1/3/12*	*Mon 1/9/12*		*4.00 €*	*1*
5	Identify the IT HW in inventory to be used for the e-Learning platform	4 days	Tue 1/10/12	Fri 1/13/12	0%	180.56 €	16 hrs
	Responsible with IT hardware		*Tue 1/10/12*	*Thu 1/12/12*		*80.00 €*	*16 hrs*
	PC3 with Office suite		*Tue 1/10/12*	*Fri 1/13/12*		*0.50 €*	*1*
	Phone 4		*Tue 1/10/12*	*Fri 1/13/12*		*0.05 €*	*1*
	Internet services		*Tue 1/10/12*	*Fri 1/13/12*		*50.00 €*	*1*
	Phone services		*Tue 1/10/12*	*Fri 1/13/12*		*50.01 €*	*1*
6	Start the acquisition procedure	5 days	Tue 1/10/12	Mon 1/16/12	0%	1,285.70 €	85 hrs
	Legal advisor		*Tue 1/10/12*	*Tue 1/10/12*		*20.00 €*	*5 hrs*
	Chief of Public Acquisition Dep		*Tue 1/10/12*	*Mon 1/16/12*		*200.00 €*	*40 hrs*
	PC6 with Office suite		*Tue 1/10/12*	*Mon 1/16/12*		*0.50 €*	*1*
	Phone 4		*Tue 1/10/12*	*Mon 1/16/12*		*0.05 €*	*1*
	Phone 5		*Tue 1/10/12*	*Mon 1/16/12*		*0.05 €*	*1*
	Fax machine		*Tue 1/10/12*	*Mon 1/16/12*		*0.05 €*	*1*
	Internet services		*Tue 1/10/12*	*Mon 1/16/12*		*50.00 €*	*1*
	Fax services		*Tue 1/10/12*	*Mon 1/16/12*		*10.05 €*	*1*
	Mailing services		*Tue 1/10/12*	*Mon 1/16/12*		*5.00 €*	*1*
	Outsourced Advertising services		*Tue 1/10/12*	*Mon 1/16/12*		*1,000.00 €*	*40 hrs*
7	Do the auction	20 days	Tue 1/17/12	Mon 2/13/12	0%	850.06 €	160 hrs
	Chief of Public Acquisition Dep		*Tue 1/17/12*	*Mon 2/13/12*		*800.00 €*	*160 hrs*
	Phone 1		*Tue 1/17/12*	*Mon 2/13/12*		*0.05 €*	*1*
	Phone services		*Tue 1/17/12*	*Mon 2/13/12*		*50.01 €*	*1*
8	Evaluate the offers	5 days	Tue 2/14/12	Mon 2/20/12	0%	1,000.86 €	185 hrs
	Project manager		*Tue 2/14/12*	*Mon 2/20/12*		*30.00 €*	*5 hrs*
	Deputy project manager		*Tue 2/14/12*	*Mon 2/20/12*		*80.00 €*	*20 hrs*
	Responsible with IT hardware		*Tue 2/14/12*	*Mon 2/20/12*		*200.00 €*	*40 hrs*
	Responsible with IT software		*Tue 2/14/12*	*Mon 2/20/12*		*200.00 €*	*40 hrs*
	Financial responsible		*Tue 2/14/12*	*Mon 2/20/12*		*100.00 €*	*20 hrs*
	Legal advisor		*Tue 2/14/12*	*Mon 2/20/12*		*80.00 €*	*20 hrs*
	Chief of Public Acquisition Dep		*Tue 2/14/12*	*Mon 2/20/12*		*200.00 €*	*40 hrs*
	PC1 with Office suite		*Tue 2/14/12*	*Mon 2/20/12*		*0.50 €*	*1*
	Phone 1		*Tue 2/14/12*	*Mon 2/20/12*		*0.05 €*	*1*
	Phone 2		*Tue 2/14/12*	*Mon 2/20/12*		*0.05 €*	*1*

ID	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
	Phone 3		*Tue 2/14/12*	*Mon 2/20/12*		*0.05 €*	*1*
	Phone 4		*Tue 2/14/12*	*Mon 2/20/12*		*0.05 €*	*1*
	Phone 5		*Tue 2/14/12*	*Mon 2/20/12*		*0.05 €*	*1*
	Fax machine		*Tue 2/14/12*	*Mon 2/20/12*		*0.05 €*	*1*
	Internet services		*Tue 2/14/12*	*Mon 2/20/12*		*50.00 €*	*1*
	Phone services		*Tue 2/14/12*	*Mon 2/20/12*		*50.01 €*	*1*
	Fax services		*Tue 2/14/12*	*Mon 2/20/12*		*10.05 €*	*1*
9	Announce the winning offer	0 days	Mon 2/20/12	Mon 2/20/12	0%	5.00 €	0 hrs
	Project manager		*Mon 2/20/12*	*Mon 2/20/12*		*0.00 €*	*0 hrs*
	Internet services		*Mon 2/20/12*	*Mon 2/20/12*		*0.00 €*	*0*
	AFA web-site		*Mon 2/20/12*	*Mon 2/20/12*		*5.00 €*	*0*
10	Negotiate the contract	6 days	Tue 2/21/12	Tue 2/28/12	0%	1,056.26 €	192 hrs
	Project manager		*Tue 2/21/12*	*Tue 2/28/12*		*36.00 €*	*6 hrs*
	Deputy project manager		*Tue 2/21/12*	*Tue 2/28/12*		*48.00 €*	*12 hrs*
	Responsible with IT hardware		*Tue 2/21/12*	*Tue 2/28/12*		*240.00 €*	*48 hrs*
	Responsible with IT software		*Tue 2/21/12*	*Tue 2/28/12*		*240.00 €*	*48 hrs*
	Financial responsible		*Tue 2/21/12*	*Tue 2/28/12*		*60.00 €*	*12 hrs*
	Legal advisor		*Tue 2/21/12*	*Tue 2/28/12*		*72.00 €*	*18 hrs*
	Chief of Public Acquisition Dep		*Tue 2/21/12*	*Tue 2/28/12*		*240.00 €*	*48 hrs*
	PC1 with Office suite		*Tue 2/21/12*	*Tue 2/28/12*		*0.50 €*	*1*
	Printer		*Tue 2/21/12*	*Tue 2/28/12*		*0.50 €*	*1*
	Phone 1		*Tue 2/21/12*	*Tue 2/28/12*		*0.05 €*	*1*
	Phone 2		*Tue 2/21/12*	*Tue 2/28/12*		*0.05 €*	*1*
	Phone 3		*Tue 2/21/12*	*Tue 2/28/12*		*0.05 €*	*1*
	Fax machine		*Tue 2/21/12*	*Tue 2/28/12*		*0.05 €*	*1*
	Internet services		*Tue 2/21/12*	*Tue 2/28/12*		*50.00 €*	*1*
	Phone services		*Tue 2/21/12*	*Tue 2/28/12*		*50.01 €*	*1*
	Fax services		*Tue 2/21/12*	*Tue 2/28/12*		*10.05 €*	*1*
	Mailing services		*Tue 2/21/12*	*Tue 2/28/12*		*5.00 €*	*1*
	Ream 1 of printed papers		*Tue 2/21/12*	*Tue 2/28/12*		*4.00 €*	*1*
11	Finalize the acquisition procedure by signing the contract	1 day	Wed 2/29/12	Wed 2/29/12	0%	205.21 €	16 hrs
	Project manager		*Wed 2/29/12*	*Wed 2/29/12*		*24.00 €*	*4 hrs*
	Financial responsible		*Wed 2/29/12*	*Wed 2/29/12*		*20.00 €*	*4 hrs*
	Legal advisor		*Wed 2/29/12*	*Wed 2/29/12*		*16.00 €*	*4 hrs*
	AFA commander		*Wed 2/29/12*	*Wed 2/29/12*		*40.00 €*	*4 hrs*
	Phone 1		*Wed 2/29/12*	*Wed 2/29/12*		*0.05 €*	*1*
	Phone 2		*Wed 2/29/12*	*Wed 2/29/12*		*0.05 €*	*1*
	Phone 3		*Wed 2/29/12*	*Wed 2/29/12*		*0.05 €*	*1*
	Phone 4		*Wed 2/29/12*	*Wed 2/29/12*		*0.05 €*	*1*
	Internet services		*Wed 2/29/12*	*Wed 2/29/12*		*50.00 €*	*1*
	Phone services		*Wed 2/29/12*	*Wed 2/29/12*		*50.01 €*	*1*
	AFA web-site		*Wed 2/29/12*	*Wed 2/29/12*		*5.00 €*	*1*
12	Delivery of the new items of the e-Learning platform	43 days	Thu 3/1/12	Mon 4/30/12	0%	300,050.06 €	344 hrs
	Phone 5		*Thu 3/1/12*	*Mon 4/30/12*		*0.05 €*	*1*
	Phone services		*Thu 3/1/12*	*Mon 4/30/12*		*50.01 €*	*1*
	Outsourced services for developing project (HW delivery)		*Thu 3/1/12*	*Mon 4/30/12*		*300,000.00 €*	*344 hrs*
13	**Mount the components of the platform**	**87 days**	**Thu 3/1/12**	**Fri 6/29/12**	**0%**	**553,401.96 €**	**1,141 hrs**
14	Develop the SOPs	43 days	Thu 3/1/12	Mon 4/30/12	0%	150,050.06 €	86 hrs
	Phone 4		*Thu 3/1/12*	*Mon 4/30/12*		*0.05 €*	*1*
	Phone services		*Thu 3/1/12*	*Mon 4/30/12*		*50.01 €*	*1*
	Outsourced services for developing project (SOP developing)		*Thu 3/1/12*	*Mon 4/30/12*		*150,000.00 €*	*86 hrs*
15	Identify the locations of the e-Learning HW items	22 days	Thu 3/1/12	Fri 3/30/12	0%	115.00 €	22 hrs
	Responsible with IT hardware		*Thu 3/1/12*	*Fri 3/30/12*		*110.00 €*	*22 hrs*
	PC6 with Office suite		*Thu 3/1/12*	*Fri 3/30/12*		*0.50 €*	*1*
	Printer		*Thu 3/1/12*	*Fri 3/30/12*		*0.50 €*	*1*
	Ream 2 of printed papers		*Thu 3/1/12*	*Fri 3/30/12*		*4.00 €*	*1*

ID	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
16	Make available the identified locations	21 days	Mon 4/2/12	Mon 4/30/12	0%	260.06 €	42 hrs
	Responsible with IT hardware		*Mon 4/2/12*	*Mon 4/30/12*		*210.00 €*	*42 hrs*
	Phone 3		*Mon 4/2/12*	*Mon 4/30/12*		*0.05 €*	*1*
	Phone services		*Mon 4/2/12*	*Mon 4/30/12*		*50.01 €*	*1*
17	Overhaul the existing HW items to be re-assigned for the e-Learning platform	43 days	Thu 3/1/12	Mon 4/30/12	0%	2,680.56 €	344 hrs
	Responsible with IT hardware		*Thu 3/1/12*	*Mon 4/30/12*		*860.00 €*	*172 hrs*
	PC5 with Office suite		*Thu 3/1/12*	*Mon 4/30/12*		*0.50 €*	*1*
	Phone 2		*Thu 3/1/12*	*Mon 4/30/12*		*0.05 €*	*1*
	Internet services		*Thu 3/1/12*	*Mon 4/30/12*		*50.00 €*	*1*
	Phone services		*Thu 3/1/12*	*Mon 4/30/12*		*50.01 €*	*1*
	Outsourced IT Maintenance services		*Thu 3/1/12*	*Mon 4/30/12*		*1,720.00 €*	*172 hrs*
18	Make available the existing in inventory HW items previously identified to be refurbished	7 days	Thu 3/1/12	Fri 3/9/12	0%	135.56 €	7 hrs
	Responsible with IT hardware		*Thu 3/1/12*	*Fri 3/9/12*		*35.00 €*	*7 hrs*
	PC4 with Office suite		*Thu 3/1/12*	*Fri 3/9/12*		*0.50 €*	*1*
	Phone 1		*Thu 3/1/12*	*Fri 3/9/12*		*0.05 €*	*1*
	Internet services		*Thu 3/1/12*	*Fri 3/9/12*		*50.00 €*	*1*
	Phone services		*Thu 3/1/12*	*Fri 3/9/12*		*50.01 €*	*1*
19	Refurbish the existing in inventory HW items	36 days	Mon 3/12/12	Mon 4/30/12	0%	100,110.66 €	288 hrs
	PC6 with Office suite		*Mon 3/12/12*	*Mon 4/30/12*		*0.50 €*	*1*
	Phone 2		*Mon 3/12/12*	*Mon 4/30/12*		*0.05 €*	*1*
	Fax machine		*Mon 3/12/12*	*Mon 4/30/12*		*0.05 €*	*1*
	Internet services		*Mon 3/12/12*	*Mon 4/30/12*		*50.00 €*	*1*
	Phone services		*Mon 3/12/12*	*Mon 4/30/12*		*50.01 €*	*1*
	Fax services		*Mon 3/12/12*	*Mon 4/30/12*		*10.05 €*	*1*
	Outsourced services for developing project (HW refurbishing)		*Mon 3/12/12*	*Mon 4/30/12*		*100,000.00 €*	*288 hrs*
20	Mount the HW items to their locations	44 days	Tue 5/1/12	Fri 6/29/12	0%	300,050.06 €	352 hrs
	Phone 3		*Tue 5/1/12*	*Fri 6/29/12*		*0.05 €*	*1*
	Phone services		*Tue 5/1/12*	*Fri 6/29/12*		*50.01 €*	*1*
	Outsourced services for developing project (HW mounting)		*Tue 5/1/12*	*Fri 6/29/12*		*300,000.00 €*	*352 hrs*
21	**Implement the Learning Management System software**	**27 days**	**Mon 7/2/12**	**Tue 8/7/12**	**0%**	**301,110.38 €**	**425 hrs**
22	Install the LMS software package	22 days	Mon 7/2/12	Tue 7/31/12	0%	150,050.06 €	176 hrs
	Phone 4		*Mon 7/2/12*	*Tue 7/31/12*		*0.05 €*	*1*
	Phone services		*Mon 7/2/12*	*Tue 7/31/12*		*50.01 €*	*1*
	Outsourced services for developing project (SW installing)		*Mon 7/2/12*	*Tue 7/31/12*		*150,000.00 €*	*176 hrs*
23	Develop the SOPs for activities related to implementing the LMS software	22 days	Mon 7/2/12	Tue 7/31/12	0%	150,050.06 €	44 hrs
	Phone 5		*Mon 7/2/12*	*Tue 7/31/12*		*0.05 €*	*1*
	Phone services		*Mon 7/2/12*	*Tue 7/31/12*		*50.01 €*	*1*
	Outsourced services for developing project (SOP developing)		*Mon 7/2/12*	*Tue 7/31/12*		*150,000.00 €*	*44 hrs*
24	Test the initial functionality of the mounted platform	5 days	Wed 8/1/12	Tue 8/7/12	0%	1,010.26 €	205 hrs
	Deputy project manager		*Wed 8/1/12*	*Tue 8/7/12*		*20.00 €*	*5 hrs*
	Responsible with IT hardware		*Wed 8/1/12*	*Tue 8/7/12*		*200.00 €*	*40 hrs*
	Responsible with IT software		*Wed 8/1/12*	*Tue 8/7/12*		*200.00 €*	*40 hrs*
	Platform admins		*Wed 8/1/12*	*Tue 8/7/12*		*160.00 €*	*40 hrs*
	Domain admins		*Wed 8/1/12*	*Tue 8/7/12*		*160.00 €*	*40 hrs*
	Tutors		*Wed 8/1/12*	*Tue 8/7/12*		*160.00 €*	*40 hrs*
	Phone 1		*Wed 8/1/12*	*Tue 8/7/12*		*0.05 €*	*1*
	Phone 2		*Wed 8/1/12*	*Tue 8/7/12*		*0.05 €*	*1*
	Phone 3		*Wed 8/1/12*	*Tue 8/7/12*		*0.05 €*	*1*
	Phone 4		*Wed 8/1/12*	*Tue 8/7/12*		*0.05 €*	*1*
	Phone 5		*Wed 8/1/12*	*Tue 8/7/12*		*0.05 €*	*1*
	Internet services		*Wed 8/1/12*	*Tue 8/7/12*		*50.00 €*	*1*
	Phone services		*Wed 8/1/12*	*Tue 8/7/12*		*50.01 €*	*1*
	eAFA platform		*Wed 8/1/12*	*Tue 8/7/12*		*10.00 €*	*1*
25	**Implement the integrated data base**	**18 days**	**Wed 8/8/12**	**Fri 8/31/12**	**0%**	**301,110.38 €**	**270 hrs**
26	Install the integrated data base	13 days	Wed 8/8/12	Fri 8/24/12	0%	150,050.06 €	39 hrs
	Phone 1		*Wed 8/8/12*	*Fri 8/24/12*		*0.05 €*	*1*
	Phone services		*Wed 8/8/12*	*Fri 8/24/12*		*50.01 €*	*1*
	Outsourced services for developing project (SW installing)		*Wed 8/8/12*	*Fri 8/24/12*		*150,000.00 €*	*39 hrs*

ID	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
27	Develop the SOPs for activities related to integrated data base	13 days	Wed 8/8/12	Fri 8/24/12	0%	150,050.06 €	26 hrs
	Phone 2		*Wed 8/8/12*	*Fri 8/24/12*		*0.05 €*	*1*
	Phone services		*Wed 8/8/12*	*Fri 8/24/12*		*50.01 €*	*1*
	Outsourced services for developing project (SOP developing)		*Wed 8/8/12*	*Fri 8/24/12*		*150,000.00 €*	*26 hrs*
28	Test the functionality of the integrated systems	5 days	Mon 8/27/12	Fri 8/31/12	0%	1,010.26 €	205 hrs
	Deputy project manager		*Mon 8/27/12*	*Fri 8/31/12*		*20.00 €*	*5 hrs*
	Responsible with IT hardware		*Mon 8/27/12*	*Fri 8/31/12*		*200.00 €*	*40 hrs*
	Responsible with IT software		*Mon 8/27/12*	*Fri 8/31/12*		*200.00 €*	*40 hrs*
	Platform admins		*Mon 8/27/12*	*Fri 8/31/12*		*160.00 €*	*40 hrs*
	Domain admins		*Mon 8/27/12*	*Fri 8/31/12*		*160.00 €*	*40 hrs*
	Tutors		*Mon 8/27/12*	*Fri 8/31/12*		*160.00 €*	*40 hrs*
	Phone 1		*Mon 8/27/12*	*Fri 8/31/12*		*0.05 €*	*1*
	Phone 2		*Mon 8/27/12*	*Fri 8/31/12*		*0.05 €*	*1*
	Phone 3		*Mon 8/27/12*	*Fri 8/31/12*		*0.05 €*	*1*
	Phone 4		*Mon 8/27/12*	*Fri 8/31/12*		*0.05 €*	*1*
	Phone 5		*Mon 8/27/12*	*Fri 8/31/12*		*0.05 €*	*1*
	Internet services		*Mon 8/27/12*	*Fri 8/31/12*		*50.00 €*	*1*
	Phone services		*Mon 8/27/12*	*Fri 8/31/12*		*50.01 €*	*1*
	eAFA platform		*Mon 8/27/12*	*Fri 8/31/12*		*10.00 €*	*1*
29	**Implement the communicational system to be hosted by the platform**	**23 days**	**Wed 8/8/12**	**Fri 9/7/12**	**0%**	**301,110.38 €**	**295 hrs**
30	Install the elements of the communicational system	18 days	Wed 8/8/12	Fri 8/31/12	0%	150,050.06 €	54 hrs
	Phone 1		*Wed 8/8/12*	*Fri 8/31/12*		*0.05 €*	*1*
	Phone services		*Wed 8/8/12*	*Fri 8/31/12*		*50.01 €*	*1*
	Outsourced services for developing project (SW installing)		*Wed 8/8/12*	*Fri 8/31/12*		*150,000.00 €*	*54 hrs*
31	Develop the SOPs for activities related to integrated communicational system	18 days	Wed 8/8/12	Fri 8/31/12	0%	150,050.06 €	36 hrs
	Phone 2		*Wed 8/8/12*	*Fri 8/31/12*		*0.05 €*	*1*
	Phone services		*Wed 8/8/12*	*Fri 8/31/12*		*50.01 €*	*1*
	Outsourced services for developing project (SOP developing)		*Wed 8/8/12*	*Fri 8/31/12*		*150,000.00 €*	*36 hrs*
32	Test the functionality of the eAFA	5 days	Mon 9/3/12	Fri 9/7/12	0%	1,010.26 €	205 hrs
	Deputy project manager		*Mon 9/3/12*	*Fri 9/7/12*		*20.00 €*	*5 hrs*
	Responsible with IT hardware		*Mon 9/3/12*	*Fri 9/7/12*		*200.00 €*	*40 hrs*
	Responsible with IT software		*Mon 9/3/12*	*Fri 9/7/12*		*200.00 €*	*40 hrs*
	Platform admins		*Mon 9/3/12*	*Fri 9/7/12*		*160.00 €*	*40 hrs*
	Domain admins		*Mon 9/3/12*	*Fri 9/7/12*		*160.00 €*	*40 hrs*
	Tutors		*Mon 9/3/12*	*Fri 9/7/12*		*160.00 €*	*40 hrs*
	Phone 1		*Mon 9/3/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 2		*Mon 9/3/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 3		*Mon 9/3/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 4		*Mon 9/3/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 5		*Mon 9/3/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Internet services		*Mon 9/3/12*	*Fri 9/7/12*		*50.00 €*	*1*
	Phone services		*Mon 9/3/12*	*Fri 9/7/12*		*50.01 €*	*1*
	eAFA platform		*Mon 9/3/12*	*Fri 9/7/12*		*10.00 €*	*1*
33	**Train the critical users of the platform**	**115 days**	**Thu 3/1/12**	**Wed 8/8/12**	**0%**	**201,379.35 €**	**1,030 hrs**
34	Develop the tutorials for operating and maintaining the platform	109 days	Thu 3/1/12	Tue 7/31/12	0%	150,050.06 €	109 hrs
	Phone 3		*Thu 3/1/12*	*Tue 7/31/12*		*0.05 €*	*1*
	Phone services		*Thu 3/1/12*	*Tue 7/31/12*		*50.01 €*	*1*
	Outsourced services for developing project (SOP developing)		*Thu 3/1/12*	*Tue 7/31/12*		*150,000.00 €*	*109 hrs*
35	Identify the personnel for the critical positions (admins and tutors)	1 day	Thu 3/1/12	Thu 3/1/12	0%	79.11 €	6 hrs
	Deputy project manager		*Thu 3/1/12*	*Thu 3/1/12*		*8.00 €*	*2 hrs*
	Chief of Human Resources Department		*Thu 3/1/12*	*Thu 3/1/12*		*20.00 €*	*4 hrs*
	PC1 with Office suite		*Thu 3/1/12*	*Thu 3/1/12*		*0.50 €*	*1*
	PC2 with Office suite		*Thu 3/1/12*	*Thu 3/1/12*		*0.50 €*	*1*
	Phone 4		*Thu 3/1/12*	*Thu 3/1/12*		*0.05 €*	*1*
	Phone 5		*Thu 3/1/12*	*Thu 3/1/12*		*0.05 €*	*1*
	Phone services		*Thu 3/1/12*	*Thu 3/1/12*		*50.01 €*	*1*
36	Assign the persons for the critical positions	1 day	Fri 3/2/12	Fri 3/2/12	0%	150.06 €	11 hrs
	AFA commander		*Fri 3/2/12*	*Fri 3/2/12*		*80.00 €*	*8 hrs*
	Chief of Human Resources Department		*Fri 3/2/12*	*Fri 3/2/12*		*15.00 €*	*3 hrs*
	PC2 with Office suite		*Fri 3/2/12*	*Fri 3/2/12*		*0.50 €*	*1*
	Printer		*Fri 3/2/12*	*Fri 3/2/12*		*0.50 €*	*1*
	Phone 1		*Fri 3/2/12*	*Fri 3/2/12*		*0.05 €*	*1*
	Phone services		*Fri 3/2/12*	*Fri 3/2/12*		*50.01 €*	*1*
	Ream 3 of printed papers		*Fri 3/2/12*	*Fri 3/2/12*		*4.00 €*	*1*

ID	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
37	Train the critical personnel	107 days	Mon 3/5/12	Tue 7/31/12	0%	50,050.06 €	856 hrs
	Phone 2		*Mon 3/5/12*	*Tue 7/31/12*		*0.05 €*	*1*
	Phone services		*Mon 3/5/12*	*Tue 7/31/12*		*50.01 €*	*1*
	Outsourced services for developing project (trainling)		*Mon 3/5/12*	*Tue 7/31/12*		*50,000.00 €*	*856 hrs*
38	Create user accounts for all critical personnel	6 days	Wed 8/1/12	Wed 8/8/12	0%	1,050.06 €	48 hrs
	Phone 3		*Wed 8/1/12*	*Wed 8/8/12*		*0.05 €*	*1*
	Phone services		*Wed 8/1/12*	*Wed 8/8/12*		*50.01 €*	*1*
	Outsourced services for developing project (create user accounts)		*Wed 8/1/12*	*Wed 8/8/12*		*1,000.00 €*	*48 hrs*
39	**Create the content-based Virtual Library**	**157 days**	**Thu 3/1/12**	**Fri 10/5/12**	**0%**	**7,273.37 €**	**1,715 hrs**
40	Identify the resources to be hosted by Virtual Library	137 days	Thu 3/1/12	Fri 9/7/12	0%	1,247.76 €	282 hrs
	Project manager		*Thu 3/1/12*	*Fri 9/7/12*		*48.00 €*	*8 hrs*
	Deputy project manager		*Thu 3/1/12*	*Fri 9/7/12*		*1,096.00 €*	*274 hrs*
	PC1 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC2 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC3 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC4 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC5 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC6 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	Printer		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	Phone 1		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 2		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 3		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 4		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 5		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Internet services		*Thu 3/1/12*	*Fri 9/7/12*		*50.00 €*	*1*
	Phone services		*Thu 3/1/12*	*Fri 9/7/12*		*50.01 €*	*1*
41	Develop the SOPs for activities related to identifying the resources fitted for Virtual Library	137 days	Thu 3/1/12	Fri 9/7/12	0%	4,529.61 €	1,104 hrs
	Deputy project manager		*Thu 3/1/12*	*Fri 9/7/12*		*32.00 €*	*8 hrs*
	Tutors		*Thu 3/1/12*	*Fri 9/7/12*		*4,384.00 €*	*1,096 hrs*
	PC5 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC6 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	Printer		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	Phone 4		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 5		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Internet services		*Thu 3/1/12*	*Fri 9/7/12*		*50.00 €*	*1*
	Phone services		*Thu 3/1/12*	*Fri 9/7/12*		*50.01 €*	*1*
	Ream 6 of printed papers (3 pieces)		*Thu 3/1/12*	*Fri 9/7/12*		*12.00 €*	*1*
42	Transform the identified package of resources into standardized format for eAFA	15 days	Mon 9/10/12	Fri 9/28/12	0%	1,028.00 €	242 hrs
	Deputy project manager		*Mon 9/10/12*	*Fri 9/28/12*		*8.00 €*	*2 hrs*
	Platform admins		*Mon 9/10/12*	*Fri 9/28/12*		*480.00 €*	*120 hrs*
	Domain admins		*Mon 9/10/12*	*Fri 9/28/12*		*480.00 €*	*120 hrs*
	Internet services		*Mon 9/10/12*	*Fri 9/28/12*		*50.00 €*	*1*
	eAFA platform		*Mon 9/10/12*	*Fri 9/28/12*		*10.00 €*	*1*
43	Implement the standardized package of resources to eAFA	5 days	Mon 10/1/12	Fri 10/5/12	0%	240.00 €	45 hrs
	Deputy project manager		*Mon 10/1/12*	*Fri 10/5/12*		*20.00 €*	*5 hrs*
	Platform admins		*Mon 10/1/12*	*Fri 10/5/12*		*160.00 €*	*40 hrs*
	Internet services		*Mon 10/1/12*	*Fri 10/5/12*		*50.00 €*	*1*
	eAFA platform		*Mon 10/1/12*	*Fri 10/5/12*		*10.00 €*	*1*
44	Develop the tutorials for developing Virtual Library	5 days	Mon 10/1/12	Fri 10/5/12	0%	228.00 €	42 hrs
	Deputy project manager		*Mon 10/1/12*	*Fri 10/5/12*		*8.00 €*	*2 hrs*
	Platform admins		*Mon 10/1/12*	*Fri 10/5/12*		*160.00 €*	*40 hrs*
	Internet services		*Mon 10/1/12*	*Fri 10/5/12*		*50.00 €*	*1*
	eAFA platform		*Mon 10/1/12*	*Fri 10/5/12*		*10.00 €*	*1*
45	Achieve IOC	0 days	Fri 10/5/12	Fri 10/5/12	0%	5.00 €	0 hrs
	Internet services		*Fri 10/5/12*	*Fri 10/5/12*		*0.00 €*	*0*
	AFA web-site		*Fri 10/5/12*	*Fri 10/5/12*		*5.00 €*	*0*

ID	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
46	**Create user accounts for all students**	**40 days**	**Mon 10/8/12**	**Fri 11/30/12**	**0%**	**4,012.00 €**	**958 hrs**
47	Create a modular course for training the students in using eAFA	18 days	Mon 10/8/12	Wed 10/31/12	0%	1,860.00 €	450 hrs
	Deputy project manager		*Mon 10/8/12*	*Wed 10/31/12*		*72.00 €*	*18 hrs*
	Platform admins		*Mon 10/8/12*	*Wed 10/31/12*		*576.00 €*	*144 hrs*
	Domain admins		*Mon 10/8/12*	*Wed 10/31/12*		*576.00 €*	*144 hrs*
	Tutors		*Mon 10/8/12*	*Wed 10/31/12*		*576.00 €*	*144 hrs*
	Internet services		*Mon 10/8/12*	*Wed 10/31/12*		*50.00 €*	*1*
	eAFA platform		*Mon 10/8/12*	*Wed 10/31/12*		*10.00 €*	*1*
48	Create user accounts for the students	18 days	Mon 10/8/12	Wed 10/31/12	0%	640.00 €	145 hrs
	Deputy project manager		*Mon 10/8/12*	*Wed 10/31/12*		*4.00 €*	*1 hr*
	Platform admins		*Mon 10/8/12*	*Wed 10/31/12*		*576.00 €*	*144 hrs*
	Internet services		*Mon 10/8/12*	*Wed 10/31/12*		*50.00 €*	*1*
	eAFA platform		*Mon 10/8/12*	*Wed 10/31/12*		*10.00 €*	*1*
49	Train the users of eAFA	22 days	Thu 11/1/12	Fri 11/30/12	0%	1,512.00 €	363 hrs
	Deputy project manager		*Thu 11/1/12*	*Fri 11/30/12*		*44.00 €*	*11 hrs*
	Platform admins		*Thu 11/1/12*	*Fri 11/30/12*		*704.00 €*	*176 hrs*
	Domain admins		*Thu 11/1/12*	*Fri 11/30/12*		*704.00 €*	*176 hrs*
	Internet services		*Thu 11/1/12*	*Fri 11/30/12*		*50.00 €*	*1*
	eAFA platform		*Thu 11/1/12*	*Fri 11/30/12*		*10.00 €*	*1*
50	**Create customized on-line courses for AFA personnel**	**218 days**	**Thu 3/1/12**	**Mon 12/31/12**	**0%**	**10,552.16 €**	**2,393 hrs**
51	Identify the needs for courses hosted by eAFA	152 days	Thu 3/1/12	Fri 9/28/12	0%	7,438.16 €	1,682 hrs
	Project manager		*Thu 3/1/12*	*Fri 9/28/12*		*912.00 €*	*152 hrs*
	Deputy project manager		*Thu 3/1/12*	*Fri 9/28/12*		*40.00 €*	*10 hrs*
	Chief of Human Resources Department		*Thu 3/1/12*	*Fri 9/28/12*		*1,520.00 €*	*304 hrs*
	1 person delegated from military staff		*Thu 3/1/12*	*Fri 9/28/12*		*4,864.00 €*	*1,216 hrs*
	PC1 with Office suite		*Thu 3/1/12*	*Fri 9/28/12*		*0.50 €*	*1*
	PC2 with Office suite		*Thu 3/1/12*	*Fri 9/28/12*		*0.50 €*	*1*
	PC3 with Office suite		*Thu 3/1/12*	*Fri 9/28/12*		*0.50 €*	*1*
	Printer		*Thu 3/1/12*	*Fri 9/28/12*		*0.50 €*	*1*
	Phone 1		*Thu 3/1/12*	*Fri 9/28/12*		*0.05 €*	*1*
	Phone 2		*Thu 3/1/12*	*Fri 9/28/12*		*0.05 €*	*1*
	Phone 3		*Thu 3/1/12*	*Fri 9/28/12*		*0.05 €*	*1*
	Internet services		*Thu 3/1/12*	*Fri 9/28/12*		*50.00 €*	*1*
	Phone services		*Thu 3/1/12*	*Fri 9/28/12*		*50.01 €*	*1*
52	Develop the courses hosted by eAFA	45 days	Mon 10/1/12	Fri 11/30/12	0%	1,950.00 €	450 hrs
	Project manager		*Mon 10/1/12*	*Fri 11/30/12*		*270.00 €*	*45 hrs*
	Deputy project manager		*Mon 10/1/12*	*Fri 11/30/12*		*180.00 €*	*45 hrs*
	Tutors		*Mon 10/1/12*	*Fri 11/30/12*		*1,440.00 €*	*360 hrs*
	Internet services		*Mon 10/1/12*	*Fri 11/30/12*		*50.00 €*	*1*
	eAFA platform		*Mon 10/1/12*	*Fri 11/30/12*		*10.00 €*	*1*
53	Transform the courses into standard format	10 days	Mon 12/3/12	Fri 12/14/12	0%	708.00 €	162 hrs
	Deputy project manager		*Mon 12/3/12*	*Fri 12/14/12*		*8.00 €*	*2 hrs*
	Platform admins		*Mon 12/3/12*	*Fri 12/14/12*		*320.00 €*	*80 hrs*
	Domain admins		*Mon 12/3/12*	*Fri 12/14/12*		*320.00 €*	*80 hrs*
	Internet services		*Mon 12/3/12*	*Fri 12/14/12*		*50.00 €*	*1*
	eAFA platform		*Mon 12/3/12*	*Fri 12/14/12*		*10.00 €*	*1*
54	Implement the newly developed and formatted courses on eAFA	11 days	Mon 12/17/12	Mon 12/31/12	0%	456.00 €	99 hrs
	Deputy project manager		*Mon 12/17/12*	*Mon 12/31/12*		*44.00 €*	*11 hrs*
	Platform admins		*Mon 12/17/12*	*Mon 12/31/12*		*352.00 €*	*88 hrs*
	Internet services		*Mon 12/17/12*	*Mon 12/31/12*		*50.00 €*	*1*
	eAFA platform		*Mon 12/17/12*	*Mon 12/31/12*		*10.00 €*	*1*
55	Achieve FOC	0 days	Mon 12/31/12	Mon 12/31/12	0%	5.00 €	0 hrs
	Project manager		*Mon 12/31/12*	*Mon 12/31/12*		*0.00 €*	*0 hrs*
	Internet services		*Mon 12/31/12*	*Mon 12/31/12*		*0.00 €*	*0*
	AFA web-site		*Mon 12/31/12*	*Mon 12/31/12*		*5.00 €*	*0*
56	**Evaluate and improve the platform through course critiques given by its users and critical ar**	**169 days**	**Mon 12/3/12**	**Thu 7/25/13**	**0%**	**20,194.00 €**	**4,894 hrs**
57	Conduct 4 on-line courses	109 days	Tue 1/1/13	Fri 5/31/13	0%	11,178.00 €	2,725 hrs
	Project manager		*Tue 1/1/13*	*Fri 5/31/13*		*654.00 €*	*109 hrs*
	Platform admins		*Tue 1/1/13*	*Fri 5/31/13*		*3,488.00 €*	*872 hrs*
	Domain admins		*Tue 1/1/13*	*Fri 5/31/13*		*3,488.00 €*	*872 hrs*
	Tutors		*Tue 1/1/13*	*Fri 5/31/13*		*3,488.00 €*	*872 hrs*
	Internet services		*Tue 1/1/13*	*Fri 5/31/13*		*50.00 €*	*1*
	eAFA platform		*Tue 1/1/13*	*Fri 5/31/13*		*10.00 €*	*1*

ID	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
58	Develop courses critiques	21 days	Mon 12/3/12	Mon 12/31/12	0%	816.00 €	189 hrs
	Deputy project manager		*Mon 12/3/12*	*Mon 12/31/12*		*84.00 €*	*21 hrs*
	Tutors		*Mon 12/3/12*	*Mon 12/31/12*		*672.00 €*	*168 hrs*
	Internet services		*Mon 12/3/12*	*Mon 12/31/12*		*50.00 €*	*1*
	eAFA platform		*Mon 12/3/12*	*Mon 12/31/12*		*10.00 €*	*1*
59	Conduct critical analysis	105 days	Tue 1/1/13	Mon 5/27/13	0%	3,840.00 €	945 hrs
	Deputy project manager		*Tue 1/1/13*	*Mon 5/27/13*		*420.00 €*	*105 hrs*
	Tutors		*Tue 1/1/13*	*Mon 5/27/13*		*3,360.00 €*	*840 hrs*
	Internet services		*Tue 1/1/13*	*Mon 5/27/13*		*50.00 €*	*1*
	eAFA platform		*Tue 1/1/13*	*Mon 5/27/13*		*10.00 €*	*1*
60	Analyse the results of critiques	5 days	Tue 5/28/13	Mon 6/3/13	0%	260.00 €	40 hrs
	Project manager		*Tue 5/28/13*	*Mon 6/3/13*		*120.00 €*	*20 hrs*
	Deputy project manager		*Tue 5/28/13*	*Mon 6/3/13*		*80.00 €*	*20 hrs*
	Internet services		*Tue 5/28/13*	*Mon 6/3/13*		*50.00 €*	*1*
	eAFA platform		*Tue 5/28/13*	*Mon 6/3/13*		*10.00 €*	*1*
61	Transform the recommendations of the analysis into operational transformational items for improving	15 days	Tue 6/4/13	Mon 6/24/13	0%	1,740.00 €	420 hrs
	Deputy project manager		*Tue 6/4/13*	*Mon 6/24/13*		*240.00 €*	*60 hrs*
	Platform admins		*Tue 6/4/13*	*Mon 6/24/13*		*480.00 €*	*120 hrs*
	Domain admins		*Tue 6/4/13*	*Mon 6/24/13*		*480.00 €*	*120 hrs*
	Tutors		*Tue 6/4/13*	*Mon 6/24/13*		*480.00 €*	*120 hrs*
	Internet services		*Tue 6/4/13*	*Mon 6/24/13*		*50.00 €*	*1*
	eAFA platform		*Tue 6/4/13*	*Mon 6/24/13*		*10.00 €*	*1*
62	Implement the operational transformational items	23 days	Tue 6/25/13	Thu 7/25/13	0%	2,360.00 €	575 hrs
	Deputy project manager		*Tue 6/25/13*	*Thu 7/25/13*		*92.00 €*	*23 hrs*
	Platform admins		*Tue 6/25/13*	*Thu 7/25/13*		*736.00 €*	*184 hrs*
	Domain admins		*Tue 6/25/13*	*Thu 7/25/13*		*736.00 €*	*184 hrs*
	Tutors		*Tue 6/25/13*	*Thu 7/25/13*		*736.00 €*	*184 hrs*
	Internet services		*Tue 6/25/13*	*Thu 7/25/13*		*50.00 €*	*1*
	eAFA platform		*Tue 6/25/13*	*Thu 7/25/13*		*10.00 €*	*1*
63	**Manage the project**	**409 days**	**Tue 1/3/12**	**Fri 7/26/13**	**0%**	**8,754.94 €**	**1,900 hrs**
64	Start the project	0 days	Tue 1/3/12	Tue 1/3/12	0%	0.00 €	0 hrs
	Project manager		*Tue 1/3/12*	*Tue 1/3/12*		*0.00 €*	*0 hrs*
65	Create the project web-site	10 days	Tue 1/3/12	Mon 1/16/12	0%	350.50 €	60 hrs
	Project manager		*Tue 1/3/12*	*Mon 1/16/12*		*60.00 €*	*10 hrs*
	Deputy project manager		*Tue 1/3/12*	*Mon 1/16/12*		*40.00 €*	*10 hrs*
	Responsible with IT software		*Tue 1/3/12*	*Mon 1/16/12*		*200.00 €*	*40 hrs*
	PC1 with Office suite		*Tue 1/3/12*	*Mon 1/16/12*		*0.50 €*	*1*
	Internet services		*Tue 1/3/12*	*Mon 1/16/12*		*50.00 €*	*1*
66	Disseminate the project results	409 days	Tue 1/3/12	Fri 7/26/13	0%	2,965.07 €	613 hrs
	Project manager		*Tue 1/3/12*	*Fri 7/26/13*		*1,224.01 €*	*204 hrs*
	Deputy project manager		*Tue 1/3/12*	*Fri 7/26/13*		*1,636.00 €*	*409 hrs*
	PC2 with Office suite		*Tue 1/3/12*	*Fri 7/26/13*		*0.50 €*	*1*
	Printer		*Tue 1/3/12*	*Fri 7/26/13*		*0.50 €*	*1*
	Phone 1		*Tue 1/3/12*	*Fri 7/26/13*		*0.05 €*	*1*
	Internet services		*Tue 1/3/12*	*Fri 7/26/13*		*50.00 €*	*1*
	Phone services		*Tue 1/3/12*	*Fri 7/26/13*		*50.01 €*	*1*
	Ream 5 of printed papers		*Tue 1/3/12*	*Fri 7/26/13*		*4.00 €*	*1*
67	Monitor the project	409 days	Tue 1/3/12	Fri 7/26/13	0%	5,439.36 €	1,227 hrs
	Deputy project manager		*Tue 1/3/12*	*Fri 7/26/13*		*1,636.00 €*	*409 hrs*
	Financial responsible		*Tue 1/3/12*	*Fri 7/26/13*		*2,045.00 €*	*409 hrs*
	Legal advisor		*Tue 1/3/12*	*Fri 7/26/13*		*1,636.00 €*	*409 hrs*
	PC4 with Office suite		*Tue 1/3/12*	*Fri 7/26/13*		*0.50 €*	*1*
	PC5 with Office suite		*Tue 1/3/12*	*Fri 7/26/13*		*0.50 €*	*1*
	PC6 with Office suite		*Tue 1/3/12*	*Fri 7/26/13*		*0.50 €*	*1*
	Printer		*Tue 1/3/12*	*Fri 7/26/13*		*0.50 €*	*1*
	Phone 1		*Tue 1/3/12*	*Fri 7/26/13*		*0.05 €*	*1*
	Phone 2		*Tue 1/3/12*	*Fri 7/26/13*		*0.05 €*	*1*
	Phone 3		*Tue 1/3/12*	*Fri 7/26/13*		*0.05 €*	*1*
	Phone 4		*Tue 1/3/12*	*Fri 7/26/13*		*0.05 €*	*1*
	Phone 5		*Tue 1/3/12*	*Fri 7/26/13*		*0.05 €*	*1*
	Fax machine		*Tue 1/3/12*	*Fri 7/26/13*		*0.05 €*	*1*
	Internet services		*Tue 1/3/12*	*Fri 7/26/13*		*50.00 €*	*1*
	Phone services		*Tue 1/3/12*	*Fri 7/26/13*		*50.01 €*	*1*
	Fax services		*Tue 1/3/12*	*Fri 7/26/13*		*10.05 €*	*1*
	eAFA platform		*Tue 1/3/12*	*Fri 7/26/13*		*10.00 €*	*1*
68	Finalize the project	0 days	Fri 7/26/13	Fri 7/26/13	0%	5.00 €	0 hrs
	Project manager		*Fri 7/26/13*	*Fri 7/26/13*		*0.00 €*	*0 hrs*
	Internet services		*Fri 7/26/13*	*Fri 7/26/13*		*0.00 €*	*0*
	AFA web-site		*Fri 7/26/13*	*Fri 7/26/13*		*5.00 €*	*0*

ID	Task Name	Duration	Start	Finish	% Comp.	Cost	Work
37	Train the critical personnel	107 days	Mon 3/5/12	Tue 7/31/12	0%	50,050.06 €	856 hrs
	Phone 2		*Mon 3/5/12*	*Tue 7/31/12*		*0.05 €*	*1*
	Phone services		*Mon 3/5/12*	*Tue 7/31/12*		*50.01 €*	*1*
	Outsourced services for developing project (trainling)		*Mon 3/5/12*	*Tue 7/31/12*		*50,000.00 €*	*856 hrs*
38	Create user accounts for all critical personnel	6 days	Wed 8/1/12	Wed 8/8/12	0%	1,050.06 €	48 hrs
	Phone 3		*Wed 8/1/12*	*Wed 8/8/12*		*0.05 €*	*1*
	Phone services		*Wed 8/1/12*	*Wed 8/8/12*		*50.01 €*	*1*
	Outsourced services for developing project (create user accounts)		*Wed 8/1/12*	*Wed 8/8/12*		*1,000.00 €*	*48 hrs*
39	**Create the content-based Virtual Library**	**157 days**	**Thu 3/1/12**	**Fri 10/5/12**	**0%**	**7,273.37 €**	**1,715 hrs**
40	Identify the resources to be hosted by Virtual Library	137 days	Thu 3/1/12	Fri 9/7/12	0%	1,247.76 €	282 hrs
	Project manager		*Thu 3/1/12*	*Fri 9/7/12*		*48.00 €*	*8 hrs*
	Deputy project manager		*Thu 3/1/12*	*Fri 9/7/12*		*1,096.00 €*	*274 hrs*
	PC1 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC2 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC3 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC4 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC5 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC6 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	Printer		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	Phone 1		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 2		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 3		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 4		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 5		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Internet services		*Thu 3/1/12*	*Fri 9/7/12*		*50.00 €*	*1*
	Phone services		*Thu 3/1/12*	*Fri 9/7/12*		*50.01 €*	*1*
41	Develop the SOPs for activities related to identifying the resources fitted for Virtual Library	137 days	Thu 3/1/12	Fri 9/7/12	0%	4,529.61 €	1,104 hrs
	Deputy project manager		*Thu 3/1/12*	*Fri 9/7/12*		*32.00 €*	*8 hrs*
	Tutors		*Thu 3/1/12*	*Fri 9/7/12*		*4,384.00 €*	*1,096 hrs*
	PC5 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	PC6 with Office suite		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	Printer		*Thu 3/1/12*	*Fri 9/7/12*		*0.50 €*	*1*
	Phone 4		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Phone 5		*Thu 3/1/12*	*Fri 9/7/12*		*0.05 €*	*1*
	Internet services		*Thu 3/1/12*	*Fri 9/7/12*		*50.00 €*	*1*
	Phone services		*Thu 3/1/12*	*Fri 9/7/12*		*50.01 €*	*1*
	Ream 6 of printed papers (3 pieces)		*Thu 3/1/12*	*Fri 9/7/12*		*12.00 €*	*1*
42	Transform the identified package of resources into standardized format for eAFA	15 days	Mon 9/10/12	Fri 9/28/12	0%	1,028.00 €	242 hrs
	Deputy project manager		*Mon 9/10/12*	*Fri 9/28/12*		*8.00 €*	*2 hrs*
	Platform admins		*Mon 9/10/12*	*Fri 9/28/12*		*480.00 €*	*120 hrs*
	Domain admins		*Mon 9/10/12*	*Fri 9/28/12*		*480.00 €*	*120 hrs*
	Internet services		*Mon 9/10/12*	*Fri 9/28/12*		*50.00 €*	*1*
	eAFA platform		*Mon 9/10/12*	*Fri 9/28/12*		*10.00 €*	*1*
43	Implement the standardized package of resources to eAFA	5 days	Mon 10/1/12	Fri 10/5/12	0%	240.00 €	45 hrs
	Deputy project manager		*Mon 10/1/12*	*Fri 10/5/12*		*20.00 €*	*5 hrs*
	Platform admins		*Mon 10/1/12*	*Fri 10/5/12*		*160.00 €*	*40 hrs*
	Internet services		*Mon 10/1/12*	*Fri 10/5/12*		*50.00 €*	*1*
	eAFA platform		*Mon 10/1/12*	*Fri 10/5/12*		*10.00 €*	*1*
44	Develop the tutorials for developing Virtual Library	5 days	Mon 10/1/12	Fri 10/5/12	0%	228.00 €	42 hrs
	Deputy project manager		*Mon 10/1/12*	*Fri 10/5/12*		*8.00 €*	*2 hrs*
	Platform admins		*Mon 10/1/12*	*Fri 10/5/12*		*160.00 €*	*40 hrs*
	Internet services		*Mon 10/1/12*	*Fri 10/5/12*		*50.00 €*	*1*
	eAFA platform		*Mon 10/1/12*	*Fri 10/5/12*		*10.00 €*	*1*
45	Achieve IOC	0 days	Fri 10/5/12	Fri 10/5/12	0%	5.00 €	0 hrs
	Internet services		*Fri 10/5/12*	*Fri 10/5/12*		*0.00 €*	*0*
	AFA web-site		*Fri 10/5/12*	*Fri 10/5/12*		*5.00 €*	*0*

BUILDING AN ELECTRONIC ARCHIVE IN PUBLIC INSTITUTION X

LTC Anton-Mugurel ROG

I. BUSINESS CASE

I.1. Goal

Build – in a legal manner – a centralized electronic archive that provides better record management for all electronic documents produced by Public Institution X.

I.2. Opportunities

Documents are printed on paper and circulated in this format inside the Institution. That makes very hard to audit all persons that have read these documents. The electronic versions of these documents are stored on disparate file servers within the national spread Institution, so on-line direct access is not possible at this time. From a financial point of view, the cost of special printer paper, printers supplies and the maintenance costs for all file servers are much higher then the cost of a centralized electronic archive. Because of these problems, Public Institution Directorate decided to give up on paper documents at Institution level, and use only electronic documents in a legal manner. Starting from this point, IT Departments came up with the proposal to build a centralized electronic archive that provide record management, document enhanced security, on-line "need to know" based access and advance audit system, in respect to laws that regulates this domain. Creating such a system takes a combined endeavor between acquisition of an electronic archive driven platform and developing in-house specific features.

I.3. Project duration

Start date – January 02, 2012 **End date** – May 28, 2013

I.4. Initial Estimated Budget

Total estimated budget **748,000 Euro**

- Software platform and hardware infrastructure acquisition – **450,000 Euro**
- Implementing services acquisition – **115,000 Euro**
- Technical Staff training – **30,000 Euro**
- Salary cost – **130,000 Euro**
- Direct expenses – **3,000 Euro**
- Contingency sum – **20,000 Euro**

I.5. Legal environment

- **Electronic archive law no. 135/2007**
- **Electronic signature law no. 455/2001**
- **Temporal stamp law no. 451/2004**

I.6. Assumptions

These three laws were modified in order to allow Public Institutions to provide electronic archive services, electronic signature services and temporal stamp services only for internal needs. The modifications regard drastic decrease of money warranty that these public institutions must deposit in order to be allowed to provide these services.

I.7. Communication

Head of IT Software Department, witch is subordinated to IT Department, will be Project Manager. He will report to Head of IT Department, witch will report to Public Institution Directorate. Ultimate decision maker will be Technical Deputy Director that coordinates all technical staff.

I.8. Human Resources

Structures involved are: IT Department (12 peoples – **1 PM**, **1 Technical Leader**, **2 Analysts**, **6 Developers**, **3 Administrators – 1 network administrator, 1 application server administrator and 1 database administrator**), Law Department (1 people – **1 judicial expert**), Financial Department (1 people – 1 financial expert) HR Department (1 people – 1 HR expert) and Secretariat Department (3 peoples – **2 paper flow specialists and 1 archivist**).

I.9. Initial Risks

- Crisis situation may not allow the budget allocation for the project.
- Resignations during the execution phase of the project due to salary diminish.
- Delivery delay software platform.
- Delivery delay hardware infrastructure.
- Overhead tasks outside of project allocated to human resources involved.

II. SCOPE MANAGEMENT PLAN

II.1 Goal

To build a centralized electronic archive that provide record management, document enhanced security, on-line "need to know" based access and advance audit system, in respect to laws that regulates this domain.

II.2 Objectives

1.1. Centralize all electronic documents in headquarters content server in 2 months from the beginning of the project.
1.2. Make the acquisition of an electronic archive platform (software platform and hardware equipment) in 8 months from the beginning of the projects
1.3. Change actual on paper documents flows with electronic flows of documents by the end of month 6 of the project
1.4. Develop with in-house skills, in 11 months from the beginning of the project, the specific features of the electronic archive in accordance to internal needs
1.5. Release the electronic archive in production environment, 2 month after finishing development
1.6. Ensure 100% traceability of electronic documents by record management
1.7. Decrease the maintenance cost by 60% in 2 months before finishing the project, by ending maintenance contracts for fileservers and printers from branches
1.8. Train the personnel (system administrators, applications administrators, database administrators and users), 1 month before finishing the project

II.3. Work Breakdown Structure (WBS)

1.1.1. Configuring communication equipments in order to establish redundant access through institution INTRANET network between headquarters and branches.
1.1.2. Disabling access on branches fileserver for their users;
1.1.3. Copying all branches electronic documents in main fileserver;

1.1.4. Ensuring provision of users rights from branches servers to central content server;

1.1.5. Enabling access to main content server for branches users.

1.2.1. Developing technical requirements for software platform;

1.2.1.1. Developing technical requirements for software component that's archiving data from Enterprise Resource Planning (ERP) systems;

1.2.1.2. Developing technical requirements for software component that's archiving data from relational databases;

1.2.1.3. Developing technical requirements for software component that's archiving documents from document flow systems;

1.2.1.4. Integrating technical requirements from 1.2.1.1., 1.2.1.2., and 1.2.1.3., in order to obtain technical requirements from entire software solution;

1.2.2. Developing technical requirements for hardware infrastructure;

1.2.2.1. Developing technical requirements for hardware infrastructure for production environment;

1.2.2.2. Developing technical requirements for testing environment;

1.2.2.3. Developing technical requirements for development environment;

1.2.3. Obtaining internal approval for acquisition based on technical requirements;

1.2.4. Achieve acquisition procedure based on software and hardware technical requirements.

1.3.1. Analyzing actual on paper document flows;

1.3.1.1. Analyzing flows of documents in branches;

1.3.1.2. Analyzing flows of documents in headquarters;

1.3.2. Design electronic flows of documents for branches and headquarters;

1.3.3. Adjust secretariat structures in branches and headquarters in accordance to electronic flow of documents.

1.4.1. Customize standard archive web user interface in order to meet users expectations and implement business logic for both headquarters and branches electronic flows of documents;

1.4.2. Design and implement electronic archive rules;

1.4.3. Design and implement components for archiving data from relational database, flows of documents and ERP systems;

1.4.4. Design and implement access model to documents in electronic archive.

1.5.1. Test and debug individual as follows: business logic for flows of documents, electronic archive rules, access model and components for archiving;

1.5.2. Test and debug integrated electronic archive;

1.5.3. Release first version of electronic archive

1.6.1. Report audit data generated by features at database level, flow level and archive level.

1.7.1. Cancel maintenance contracts for branches fileservers and printers;

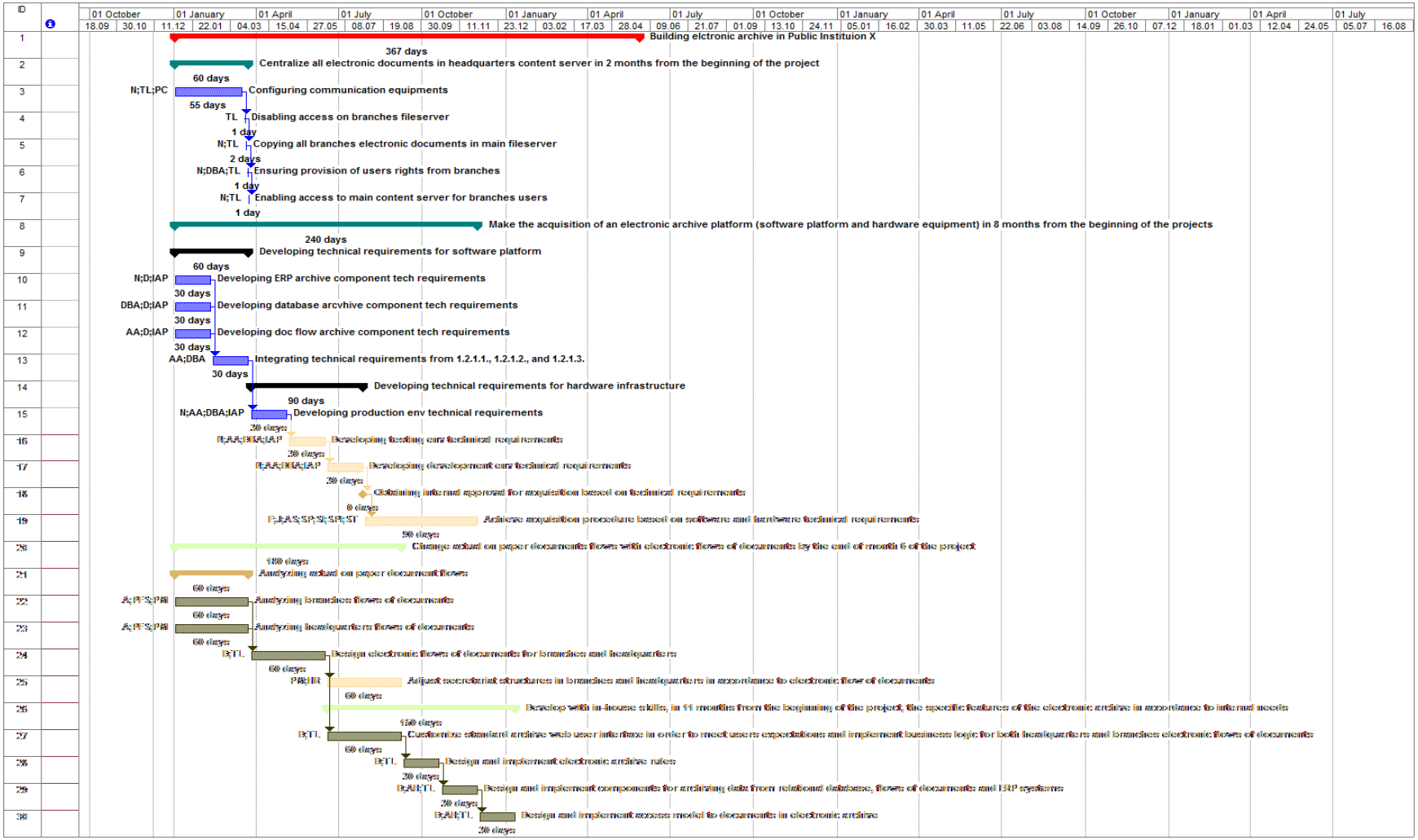
1.8.1. Training central network administrators, central application administrators and central database administrators

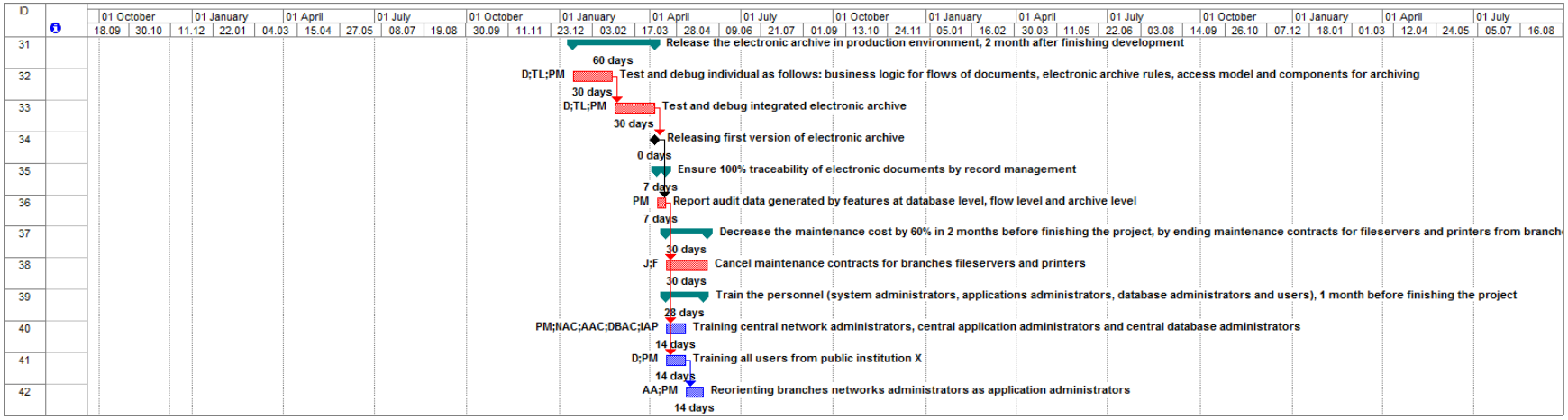
1.8.2. Training all users from public institution X

1.8.3. Reorienting branches networks administrators as application administrators

III. TIME MANAGEMENT PLAN (Gant Chart)

Gant Chart (1)





Legend

Project Manager PM; Technical Leader TL; Analyst A; Developer D; Net Adm N; App Adm AA; DBA DBA; Judicial Expert J; Financial Expert F; Paper Flow Specialist PFS'; HR Specialist HR; Archivist AH; Archive Servers AS; Switch ST; Patch cords PC; Software platform SP; Server install services SI; Software install services SPI; Internet access point IAP; Net Adm training course NAC; App Adm training course AAC; DBA training course DBAC

IV. HUMAN RESOURCE MANAGEMENT

Linear Responsibility Chart (2)

	Tech Deputy Director	Head of IT Dept	PM	Tech Leader	Net Admin	DBA	App Admin	Finance Expert	Judicial Expert	HR Expert
Configuring communication equipments	5	5	2	1	7		3			
Disable access on branches fileservers	5	5	2	1			3			
Copying documents in main server	5	5	2	1	7		3			
Provision of user rights	5	5	2	1	7		3			
Enabling access on main server	5	5	2	1	7		7			
Developing software requirements	6	5	2	1		1	1	4	3	
Developing hardware requirements	6	5	2	4	1	7	7	4		
Acquisition procedure	6	2	1	4	4	4	4	1 + 7	1 + 7	
Analyzing paper flows	5	2	1							
Design electronic flows	6	6	2	1		4	4			
Adjust secretariat dept	6	2	1					3	3	1 + 7
Customize web interface	5	5	2	1			4			
Design archive rules	6	5	2	1			4			
Components for flows, DB and ERP	5	5	2	1		4	4			
Archive access model	6	6	2	1						
Test components	5	5	2	1		4	4			
Test integrated archive	5	2	1	4	4	4	4			
Release electronic archive	6	2	1	4	5	5	5			
Audit archive	5	2	1 + 7	4	4	4	4			
Cancel maintenance in branches	6	2	1		4	4	4	7	7	
Train administrators	6	2	1		7	7	7	5		3
Train users	6	2	1				7			3
Reorienting branches admin	6	2	1				7		3	3

Legend: 1-actual responsibility; 2-general supervision; 3-must be consulted; 4-may be consulted; 5-must be notified; 6-approval authority; 7-actual performer.

V. COMMUNICATIONS MANAGEMENT

Project Communications Management Plan (3)

Project stage	Objective of Communication	Medium	When the message is conveyed / Frequency	Audience	Owner	Format of a message
Initiation	Introduce the project team and the project. Review project objectives and management approach.	Kickoff meeting / Video Conference	Once at the beginning of the project	• Technical Deputy Director (D) • Head of IT Department (D) • Project Team (P, E) • Stakeholders representatives	Project Manager	Presentation
Planning	Send tasks to project team members	Email	At the beginning of the project / as needed	• Project Team (P, E)	Project Manager	Message
Execution	Presenting technical requirements for software platform and hardware infrastructure in order to obtain approval	Meeting	One time in the third month	• Technical Deputy Director (D) • Head of IT Department (D)	Project Manager	Report
	Discuss and develop technical solutions for the project.	Meeting	As Needed	• Project Technical Staff (P, E)	Technical Lead	Presentation
	Report the status of the project including activities, progress, costs and issues.	Meeting / Video Conference / Email	Monthly	• Technical Deputy Director (D) • Head of IT Department (D) • Project Team (P, E) • Stakeholders representatives	Project Manager	Report
	Presenting first release of the electronic archive	Video Conference	One time in the nine month			Presentation
Finalizing	Presenting main benefits of the project • 100% traceability • Decrease maintenance cost • Enhance users skills	Video Conference	Once at the final of the project			

Legend: D – Decision Maker; P – Performer; E - Expert

VI. PROJECT COST MANAGEMENT

VI.1. Resource pool description

Resource pool description matrix (4)

Resource type	Name	Number
Skilled resources / Human resources	PM	1
	TL	1
	Analyst	2
	Developer	6
	Administrator	4
	Judicial Expert	1
	Financial Expert	1
	Paper flow specialist	2
	Archivist	1
	HR Expert	
Equipment	Archive Servers	5
	Switch	1
Materials	Patch cords	120
	Software platform	1
Services	Archive servers installation and configuration	5
	Network Administrator training course	1
	Software platform installation and configuration	3
	Application Administrator training course	1
	Database Administrator training course	1
	Internet access point	7

VI.2 Cost breakdown structure

Project Cost Management Estimate Summary Layout (5)

Above the line items	Direct (variable costs)	Direct labor	Based on similar IT&C projects with 1 year duration, approximately cost with salaries is 130,000 Euro
		Direct materials	Based on similar IT&C projects approximately cost with: - hardware infrastructure acquisition is 150,000 Euro - hardware infrastructure implementation and configuration is 25,000 Euro - software platform acquisition is 300,000 Euro - software platform implementation and configuration is 90,000 Euro - technical staff training is 30,000 Euro
		Direct expenses	Two months travel and accommodation cost for 2 team members that analyzes paper flows in branches is approximately 3,000 Euro.
Below the line items		Contingency sum	In the unlikely event of increase employee's salaries to their previous values, by the government, the salary estimation cost must be increased by 15%, approximately 20,000 Euro.

Total estimated cost: 748,000 Euro

Cost with Human Resources Services and Materials is calculated based on matrix (6)

HR resource	Units	Percentage allocated to project for HR	HR Cost / Day	Cost / Resource	Work time
Project Manager	1	50%	Euro 35.00/day	Euro 3,762.50	860 hrs
Technical Leader	1	100%	Euro 50.00/day	Euro 16,450.50	2,632.08 hrs
Analyst	2	100%	Euro 45.00/day	Euro 5,400.00	960 hrs
Developer	6	100%	Euro 40.00/day	Euro 70,822.18	14,164.43 hrs
Net Admin	1	100%	Euro 48.00/day	Euro 6,029.94	1,004.98 hrs
App Admin	1	100%	Euro 48.00/day	Euro 7,872.00	1,312 hrs
DBA	1	100%	Euro 48.00/day	Euro 6,504.00	1,084 hrs
Judicial Expert	1	50%	Euro 19.00/day	Euro 1,140.00	480 hrs
Financial Expert	1	50%	Euro 19.00/day	Euro 1,140.00	480 hrs
Paper Flow Specialist	2	100%	Euro 30.00/day	Euro 3,600.00	960 hrs
HR Specialist	1	100%	Euro 35.00/day	Euro 2,100.00	480 hrs
Archivist	1	100%	Euro 30.00/day	Euro 1,800.00	480 hrs
			Total HR cost	**Euro 126,621.12**	

Material / Service	Units		Service or Material Cost / Unit	Cost / Resource	
Archive Servers	5		Euro 29,000.00	Euro 145,000.00	
Switch	1		Euro 5,000.00	Euro 5,000.00	
Patch cords	120		Euro 5.00	Euro 600.00	
Software platform	1		Euro 300,000.00	Euro 300,000.00	
Server install services	5		Euro 5,000.00	Euro 25,000.00	
Software install services	3		Euro 30,000.00	Euro 90,000.00	
Internet access point	7		Euro 100.00	Euro 700.00	
Net Adm training course	1		Euro 10,000.00	Euro 10,000.00	
App Adm training course	1		Euro 10,000.00	Euro 10,000.00	
DBA training course	1		Euro 10,000.00	Euro 10,000.00	
			Total m/s cost	**Euro 596,300.00**	
			Total cost	**Euro 722,921.12**	

VII. PROJECT QUALITY MANAGEMENT

VII.1. Project quality definition

In case of electronic archive, quality is a multi-dimensional measure that describes how the information system satisfies the stated or implied requirements.

Stated requirements are equivalent to features and functionalities of electronic archive – what must be ensured by the information system – and they are:

- **Ability to archive data from electronic flows of document;**
- **Ability to archive data from relational databases;**
- **Ability to archive data from ERP (Enterprise Resource Planning) systems;**
- **Ensuring full traceability of documents by record management;**
- **Ensuring access to documents on "need to know" bases**.

Implied requirements are equivalent to non-functional features of electronic archive, and they refer to **non-repudiation, reliability, efficiency, accessibility, security, maintainability, expendability, integrity, profitability, usability**.

VII.2 Key quality concepts measurement

Non-repudiation – a service that provides proof of the integrity and origin of data, an authentication that with high assurance can be asserted to be genuine.

Reliability – measures the level of risk and the likelihood of potential application failures. It also measures the defects injected due to modifications made to the software.

Efficiency – the source code and software architecture attributes are the elements that ensure high performance once the application is in run-time mode, especially for electronic archive, witch is a transactional system.

Accessibility – The ability of information system to authorized users to access electronic archive whenever and wherever they need access.

Security – measure of potential security breaches due to poor coding and architectural practices. This quantifies the risk of encountering critical vulnerabilities that damage the business.

Maintainability – includes the notion of adaptability and transferability (from one development team to another). It is also essential to keep maintenance costs under control.

Expendability – the ease with which electronic archive can be modified to add new functionality, also the ability of the electronic archive to process increasing volumes of data without noticeable fluctuations in performance.

Integrity – the degree that electronic archive safeguards against unauthorized access to or modification of software or data.

Profitability – the ability of electronic archive to positively impact the productivity and of Public Institution X.

Usability - the extent to which the functionalities delivered by electronic archive are understandable and applicable by the end-users.

VII.3. List of deliverables and acceptance criteria

Deliverables: online communication channels

Indicator: availability, network bandwidth

Acceptance criteria: less than 2 seconds delay time to access content server from branches; Gigabit network bandwidth.

Deliverables: audit reports showing that files are copied in content server

Indicator: availability of files on central content server

Acceptance criteria: all files from branches must be available on central content server.

Deliverables: correct rights to access files by branches users on central content server

Indicator: access to files on central content server according to principle “need to know”

Acceptance criteria: all files from branches must be accessed on central content server according to principle “need to know”.

Deliverables: technical requirements document for ERP archive component

Indicator: completeness of document

Acceptance criteria: requirements must be feasible

Deliverables: technical requirements document for relational database archive component

Indicator: completeness of document

Acceptance criteria: requirements must be feasible

Deliverables: technical requirements document for archiving documents from document flow systems
Indicator: completeness of document
Acceptance criteria: requirements must be feasible

Deliverables: technical requirements document for hardware infrastructure for production environment
Indicator: completeness of document
Acceptance criteria: requirements must be feasible

Deliverables: technical requirements document for hardware infrastructure for testing environment
Indicator: completeness of document
Acceptance criteria: requirements must be feasible

Deliverables: technical requirements document for hardware infrastructure for development environment
Indicator: completeness of document
Acceptance criteria: requirements must be feasible

Deliverables: flows description document
Indicator: completeness of document
Acceptance criteria: document must contain all on paper flows

Deliverables: electronic document flows
Indicator: completeness of flows
Acceptance criteria: flows must be functional

Deliverables: user interface and business logic
Indicator: appreciation of web user interface
Acceptance criteria: user interface must be approved by user majority

Deliverables: archive rules
Indicator: rules
Acceptance criteria: rules must comply with law for electronic archive

Deliverables: components

Indicator: components

Acceptance criteria: component must be able to send documents or data to archive

Deliverables: access model

Indicator: access model

Acceptance criteria: access model must comply with “need to know” principle

Deliverables: tests and debug reports

Indicator: number of bugs

Acceptance criteria: component must be in accordance to technical requirements

Deliverables: tests and debug reports

Indicator: number of bugs

Acceptance criteria: archive must be in accordance to technical requirements

Deliverables: audit data reports

Indicator: granularity

Acceptance criteria: audit data reports will answer to: “Who access document X?” and “What was accessed by user X?”

Deliverables: contracts termination documents

Indicator: contracts termination

Acceptance criteria: signoff contracts termination

Deliverables: training certificates

Indicator: administrator skills

Acceptance criteria: administrators must obtain certificates

Deliverables: user skills

Indicator: user skills

Acceptance criteria: users must be able to use electronic archive

Deliverables: administrator skills

Indicator: administrator skills

Acceptance criteria: branches application administrators must be able to administer application according to delegation administration.

VII.4. Quality planning and control (activities and responsible persons)

Quality activities are divided in two categories:

- Premises to quality activities: 1.2.3., 1.4.2, 1.4.3., 1.4.4.
- Ensuring quality activities: 1.1.3., 1.5.1., 1.5.2., 1.6.1.

Notes

Activities descriptions can be found in chapter II section 3 – WBS.

Responsible persons can be found in chapter IV.

VIII. PROJECT RISK MANAGEMENT

Risk list, description, rating and response strategy matrix (7)

	Risk	Description	Rating		Response strategy
1	Budget cut	Due to crisis situation and unexpected way that's happening, public institution X may experience some IT budget cut	16	4L 4I	The project will implement only archiving ability for flow of documents, the rest of the abilities being postponed for next financial year
2	Team members resignations	Due to salary decrease by governmental decision some team members may decide to quit their jobs	9	3L 3I	Provide them internal maximum increases in order to compensate governmental decrease
3	Lack of interest from key stakeholders	Key stakeholders – end users – may consider usage of electronic archive as a supplementary task	12	4L 3I	Have videoconference presentations with all end users and explaining to them benefits of electronic archive
4	Delayed release date	Due to some objective events the release date may be delayed	4	2L 2I	
5	Human resource conflict	Due to overlapping projects, human resources may be involved simultaneously in multiple projects	20	4L 5I	Reprioritize ongoing projects by increasing electronic archive project priority
6	Significantly changes to the work flow	Electronic document flows may differ from on paper document flows, this fact driving processes changes in public institution	15	3L 5I	Have videoconference presentations with all end users and explaining to them processes changes, also using concrete examples
7	After release errors	Errors discovered after releasing electronic archive in production environment	3	1L 3I	Deal with errors in shortest time possible

8	Leadership	Project manager may be involved in auxiliary activities not necessarily related to other projects	15	5L 3I	Public institution X top management will try not to involve project manager in that many activities
9	End user conflicts	Different categories of end users wants the software to behave different according to their previous experience in using IT systems	8	4L 2I	Public institution top management will enforce unitary application use style
10	Vendor Support	There are situations in witch vendor support is not enough adequate in terms of time and knowledge	15	3L 5I	Vendor national branch doesn't have people skills and know how to support local buyers

Legend; L – Likelihood of Occurrence; I – Severity of Impact

1L – very unlikely; 2L – Slight; 3L – Feasible; 4L – Likely; 5L – Very Likely

1I – Insignificant; 2I – Minor; 3I – Significant; 4I – Major; 5I – Critical

Rating values: between 1 and 8 – Low Risk, equal to 9 – Medium Risk, between 10 and 25 – High Risk.

Appendices (Tack usage & WBS from Project Manager)

Electronic_archive_Final_project.mpp

ID	Task Name	Duration	Start	Finish	Predec
1	**1 Building electronic archive in Public Institution X**	**367 days**	**Mon 02.01.12**	**Tue 28.05.13**	
2	**1.1 Centralize all electronic documents in headquarters content server in 2 months from the beginning of the project**	**60 days**	**Mon 02.01.12**	**Fri 23.03.12**	
3	1.1.1 Configuring communication equipments	55 days	Mon 02.01.12	Fri 16.03.12	
	Technical Leader		*Mon 02.01.12*	*Fri 16.03.12*	
	Net Adm		*Mon 02.01.12*	*Thu 16.02.12*	
	Patch cords		*Mon 02.01.12*	*Fri 16.03.12*	
4	1.1.2 Disabling access on branches fileserver	1 day	Mon 19.03.12	Mon 19.03.12	3
	Technical Leader		*Mon 19.03.12*	*Mon 19.03.12*	
5	1.1.3 Copying all branches electronic documents in main fileserver	2 days	Tue 20.03.12	Wed 21.03.12	4
	Technical Leader		*Tue 20.03.12*	*Wed 21.03.12*	
	Net Adm		*Tue 20.03.12*	*Wed 21.03.12*	
6	1.1.4 Ensuring provision of users rights from branches	1 day	Thu 22.03.12	Thu 22.03.12	5
	Technical Leader		*Thu 22.03.12*	*Thu 22.03.12*	
	Net Adm		*Thu 22.03.12*	*Thu 22.03.12*	
	DBA		*Thu 22.03.12*	*Thu 22.03.12*	
7	1.1.5 Enabling access to main content server for branches users	1 day	Fri 23.03.12	Fri 23.03.12	6
	Technical Leader		*Fri 23.03.12*	*Fri 23.03.12*	
	Net Adm		*Fri 23.03.12*	*Fri 23.03.12*	
8	**1.2 Make the acquisition of an electronic archive platform (software platform and hardware equipment) in 6 months from the begi**	**240 days**	**Mon 02.01.12**	**Fri 30.11.12**	
9	**1.2.1 Developing technical requirements for software platform**	**60 days**	**Mon 02.01.12**	**Fri 23.03.12**	
10	1.2.1.1 Developing ERP archive component tech requirements	30 days	Mon 02.01.12	Fri 10.02.12	
	Developer		*Mon 02.01.12*	*Thu 26.01.12*	
	Net Adm		*Mon 02.01.12*	*Fri 10.02.12*	
	Internet access point		*Mon 02.01.12*	*Fri 10.02.12*	
11	1.2.1.2 Developing database arcvhive component tech requirements	30 days	Mon 02.01.12	Fri 10.02.12	
	Developer		*Mon 02.01.12*	*Fri 10.02.12*	
	DBA		*Mon 02.01.12*	*Fri 10.02.12*	
	Internet access point		*Mon 02.01.12*	*Fri 10.02.12*	
12	1.2.1.3 Developing doc flow archive component tech requirements	30 days	Mon 02.01.12	Fri 10.02.12	
	Developer		*Mon 02.01.12*	*Fri 10.02.12*	
	App Adm		*Mon 02.01.12*	*Fri 10.02.12*	
	Internet access point		*Mon 02.01.12*	*Fri 10.02.12*	
13	1.2.1.4 Integrating technical requirements from 1.2.1.1., 1.2.1.2., and 1.2.1.3.	30 days	Mon 13.02.12	Fri 23.03.12	10;11;1
	App Adm		*Mon 13.02.12*	*Fri 23.03.12*	
	DBA		*Mon 13.02.12*	*Fri 02.03.12*	
14	1.2.2 Developing technical requirements for hardware infrastructure	90 days	Mon 26.03.12	Fri 27.07.12	
15	1.2.2.1 Developing production env technical requirements	30 days	Mon 26.03.12	Fri 04.05.12	13
	Net Adm		*Mon 26.03.12*	*Fri 04.05.12*	
	App Adm		*Mon 26.03.12*	*Fri 04.05.12*	
	DBA		*Mon 26.03.12*	*Fri 04.05.12*	
	Internet access point		*Mon 26.03.12*	*Fri 04.05.12*	
16	1.2.2.2 Developing testing env technical requirements	30 days	Mon 07.05.12	Fri 15.06.12	15
	Net Adm		*Mon 07.05.12*	*Fri 15.06.12*	
	App Adm		*Mon 07.05.12*	*Fri 15.06.12*	
	DBA		*Mon 07.05.12*	*Fri 15.06.12*	
	Internet access point		*Mon 07.05.12*	*Fri 15.06.12*	
17	1.2.2.3 Developing development env technical requirements	30 days	Mon 18.06.12	Fri 27.07.12	16
	Net Adm		*Mon 18.06.12*	*Fri 27.07.12*	
	App Adm		*Mon 18.06.12*	*Fri 27.07.12*	
	DBA		*Mon 18.06.12*	*Fri 27.07.12*	
	Internet access point		*Mon 18.06.12*	*Fri 27.07.12*	
18	1.2.3 Obtaining internal approval for acquisition based on technical requirements	0 days	Fri 27.07.12	Fri 27.07.12	17

Page 1

ID	Task Name	Duration	Start	Finish	Predec
19	1.2.4 Achieve acquisition procedure based on software and hardware technical requirements	90 days	Mon 30.07.12	Fri 30.11.12	18
	Judicial Expert		*Mon 30.07.12*	*Fri 30.11.12*	
	Financial Expert		*Mon 30.07.12*	*Fri 30.11.12*	
	Archive Servers		*Mon 30.07.12*	*Fri 30.11.12*	
	Switch		*Mon 30.07.12*	*Fri 30.11.12*	
	Software platform		*Mon 30.07.12*	*Fri 30.11.12*	
	Server install services		*Mon 30.07.12*	*Fri 30.11.12*	
	Software install services		*Mon 30.07.12*	*Fri 30.11.12*	
20	**1.3 Change actual on paper documents flows with electronic flows of documents by the end of month 4 of the project**	**180 days**	**Mon 02.01.12**	**Fri 07.09.12**	
21	**1.3.1 Analyzing actual on paper document flows**	**60 days**	**Mon 02.01.12**	**Fri 23.03.12**	
22	1.3.1.1 Analyzing branches flows of documents	60 days	Mon 02.01.12	Fri 23.03.12	
	Project Manager		*Mon 02.01.12*	*Fri 23.03.12*	
	Analyst		*Mon 02.01.12*	*Fri 23.03.12*	
	Paper Flow Specialist		*Mon 02.01.12*	*Fri 23.03.12*	
23	1.3.1.2 Analyzing headquarters flows of documents	60 days	Mon 02.01.12	Fri 23.03.12	
	Project Manager		*Mon 02.01.12*	*Fri 23.03.12*	
	Analyst		*Mon 02.01.12*	*Fri 23.03.12*	
	Paper Flow Specialist		*Mon 02.01.12*	*Fri 23.03.12*	
24	1.3.2 Design electronic flows of documents for branches and headquarters	60 days	Mon 26.03.12	Fri 15.06.12	22;23
	Technical Leader		*Mon 26.03.12*	*Fri 15.06.12*	
	Developer		*Mon 26.03.12*	*Fri 15.06.12*	
25	1.3.3 Adjust secretariat structures in branches and headquarters in accordance to electronic flow of documents	60 days	Mon 18.06.12	Fri 07.09.12	24
	Project Manager		*Mon 18.06.12*	*Fri 07.09.12*	
	HR Specialist		*Mon 18.06.12*	*Fri 07.09.12*	
26	**1.4 Develop with in-house skills, in 9 months from the beginning of the project, the specific features of the electronic archive in a**	**150 days**	**Mon 18.06.12**	**Fri 11.01.13**	
27	1.4.1 Customize standard archive web user interface in order to meet users expectations and implement business logic for both headc	60 days	Mon 18.06.12	Fri 07.09.12	24
	Technical Leader		*Mon 18.06.12*	*Fri 07.09.12*	
	Developer		*Mon 18.06.12*	*Fri 07.09.12*	
28	1.4.2 Design and implement electronic archive rules	30 days	Mon 10.09.12	Fri 19.10.12	27
	Technical Leader		*Mon 10.09.12*	*Fri 19.10.12*	
	Developer		*Mon 10.09.12*	*Fri 19.10.12*	
29	1.4.3 Design and implement components for archiving data from relational database, flows of documents and ERP systems	30 days	Mon 22.10.12	Fri 30.11.12	28
	Technical Leader		*Mon 22.10.12*	*Fri 30.11.12*	
	Developer		*Mon 22.10.12*	*Fri 30.11.12*	
	Archivist		*Mon 22.10.12*	*Fri 30.11.12*	
30	1.4.4 Design and implement access model to documents in electronic archive	30 days	Mon 03.12.12	Fri 11.01.13	29
	Technical Leader		*Mon 03.12.12*	*Fri 11.01.13*	
	Developer		*Mon 03.12.12*	*Fri 11.01.13*	
	Archivist		*Mon 03.12.12*	*Fri 11.01.13*	
31	**1.5 Release the electronic archive in production environment, 2 month after finishing development**	**60 days**	**Mon 14.01.13**	**Fri 05.04.13**	
32	1.5.1 Test and debug individual as follows: business logic for flows of documents, electronic archive rules, access model and compone	30 days	Mon 14.01.13	Fri 22.02.13	30
	Project Manager		*Mon 14.01.13*	*Fri 22.02.13*	
	Technical Leader		*Mon 14.01.13*	*Fri 22.02.13*	
	Developer		*Mon 14.01.13*	*Fri 22.02.13*	
33	1.5.2 Test and debug integrated electronic archive	30 days	Mon 25.02.13	Fri 05.04.13	32
	Project Manager		*Mon 25.02.13*	*Fri 05.04.13*	
	Technical Leader		*Mon 25.02.13*	*Fri 05.04.13*	
	Developer		*Mon 25.02.13*	*Fri 05.04.13*	
34	1.5.3 Releasing first version of electronic archive	0 days	Fri 05.04.13	Fri 05.04.13	33
35	**1.6 Ensure 100% traceability of electronic documents by record management**	**7 days**	**Mon 08.04.13**	**Tue 16.04.13**	
36	1.6.1 Report audit data generated by features at database level, flow level and archive level	7 days	Mon 08.04.13	Tue 16.04.13	34
	Project Manager		*Mon 08.04.13*	*Tue 16.04.13*	

ID	Task Name	Duration	Start	Finish	Predec
37	**1.7 Decrease the maintenance cost by 60% in 3 months after finishing the project, by ending maintenance contracts for fileserver**	**30 days**	**Wed 17.04.13**	**Tue 28.05.13**	
38	1.7.1 Cancel maintenance contracts for branches fileservers and printers	30 days	Wed 17.04.13	Tue 28.05.13	36
	Judicial Expert		*Wed 17.04.13*	*Tue 28.05.13*	
	Financial Expert		*Wed 17.04.13*	*Tue 28.05.13*	
39	**1.8 Train the personnel (system administrators, applications administrators, database administrators and users), 1 month after fi**	**28 days**	**Wed 17.04.13**	**Fri 24.05.13**	
40	1.8.1 Training central network administrators, central application administrators and central database administrators	14 days	Wed 17.04.13	Mon 06.05.13	36
	Project Manager		*Wed 17.04.13*	*Mon 06.05.13*	
	Internet access point		*Wed 17.04.13*	*Mon 06.05.13*	
	Net Adm training course		*Wed 17.04.13*	*Mon 06.05.13*	
	App Adm training course		*Wed 17.04.13*	*Mon 06.05.13*	
	DBA training course		*Wed 17.04.13*	*Mon 06.05.13*	
41	1.8.2 Training all users from public institution X	14 days	Wed 17.04.13	Mon 06.05.13	36
	Project Manager		*Wed 17.04.13*	*Mon 06.05.13*	
	Developer		*Wed 17.04.13*	*Mon 06.05.13*	
42	1.8.3 Reorienting branches networks administrators as application administrators	14 days	Tue 07.05.13	Fri 24.05.13	41
	Project Manager		*Tue 07.05.13*	*Fri 24.05.13*	
	App Adm		*Tue 07.05.13*	*Fri 24.05.13*	

FEASIBILITY STUDY

ON

INTELLIGENT BUILDING

Slt. Catalin RUSU

'We can create a more sustainable, cleaner and safer world by making wiser energy choices'

Robert Alan

American Writer, Artist, Social Activist

INTRODUCTION

In terms of today's technology, intelligent building is a building that integrates technology and process to create a facility that is safer, more comfortable and productive for its occupants, and more operationally efficient for its owners.

Several names can be found as synonyms for "intelligent building" when IT solutions are considered. Easily, we can find references to "smart buildings", "domotics", and "high-tech buildings", among others.

Roughly, we can characterize three phases associated with the intelligent building concept:

? the first one, till middle of eighties, where the main emphasis is on "automated buildings" and the intelligent building is a collection of innovative technologies;

? the second one, till beginning of the nineties, where the main emphasis is on "responsible buildings" and the intelligent building concept can be characterized as a collection of technologies able to respond to organizational change over time;

? finally, in the third phase the emphasis is on the "effective building" concept, where the intelligent building can support business objectives, integrating adequate space, business and building management, and where technologies are seen as tools to support those goals.

For building an intelligent building, as a developer, you must know the return on investment time. In order to find out this information, you must consult a feasibility study.

PROJECT SPONSOR

One ore more developers who want to invest their money for construction of an office building equipped with high technical equipment, powered up with green energy sources and offering a high level of inside comfort.

1. BUSINESS CASE

1.1 Purpose

The purpose is coming from the need of the developer to know, before starting the design and construction, how much money will cost him, what is the amount of time in witch the return on investment will occur and if there are any potential buyers for the offices that he will build. The feasibility study will answer to all his questions and according to it the developer will decide if he will invest his money or not.

1.2 Business opportunity

The developer has an opportunity to return his investment in a specific amount of time and afterwards to make profit for future projects.

1.3 Alternatives

The developer has the alternative to build a regular office building, without a feasibility study, but it will be harder to find buyers because of the lack of inside comfort, compared to an intelligent office building. Also, the money expense for utilities (heating, hot water, electrical energy) in a ten years management will be higher.

1.4 Time for achievement

The feasibility study will be accomplished in 6 months from the date notified by the developer as the start date.

1.5 Constrains and risks

The constrains are formed by the market fluctuation (buyers can be interested in a less expensive office space to the detriment of comfort) and by the risk to exceed the estimated return on investment time because of the market rates.

Also, in the process of developing the feasibility study some studies are needed, like impact over environment study, geological study and substantiation and emplacement study.

The time for achieving these studies is a risk because of the possible subcontractors overcome date for studies delivery.

Project difficulty can also be a risk, especially for establishing the solutions for green energy equipments.

For providing a quality product, there must be no difference between the developer desire and final product. In order to accomplish this, the project manager must obtain the developer signature on the initial and final proposal.

Coordination between team members is very important, so the project manager must organize coordination meetings every week. He will also allocate time for documentation and present similar achieved project to the team. This will ensure there are no lacks in technical team documentation about the purpose of project.

Project manager will ensure a high team productivity witch is vital for a quality final product. In order to accomplish this he will buy electronic equipments needed to complete the activity without any problems.

1.6 Costs

The costs involved to accomplish the feasibility study are:

? Impact over environment study: € 2,000

? Geological study: € 700

? Substantiation and emplacement study: € 3,000

? Salary payment: € 11,500

? Materials and software licenses: € 7,500

2. SCOPE MANAGEMENT PLAN

2.1 Goal

The goal of the project is to accomplish the feasibility study for a developer in order to find out the time for return on investment for building an intelligent office building.

2.2 Objectives

2.2.1 Collect data from the terrain in order to design the shape of the building in one week from the start of the project

2.2.1.1 Execute topographic measurements in order to establish the aperture of the terrain to the communication road and the elevation of surface. This activity will be accomplished by the topographic engineer from my team in two days and will have the start date first day from the start of the project. Next activity will be the layout design and the resource needed is an electronic theodolite.

2.2.1.2 Design the layout of the terrain using the AutoCAD design software. This will be accomplished by the architect from my team in tree days after executing the topographic measurements. Next activity will be developing the architectural proposal and the resource needed for this activity will be a computer with AutoCAD design software installed.

2.2.2 Develop the technical solutions in tree months after collecting data from the terrain.

2.2.2.1 Create the architectural proposal according to the demands of the developer and obtain his agreement. The proposal will be achieved by the architect from my team and will be accomplished after collecting data from the terrain. The start date is first day after finishing designing the layout of the terrain and it will end in two weeks. The resources needed are tree computers with AutoCAD design software installed and a printer for layout printing. Next activity will be obtaining details about green energy equipments.

2.2.2.1.1 Organize a meeting with the developer and obtain the initial demands regarding the shape, equipments and inside spaces of the future office building. This activity will be done in one day and will be accomplished by the architect, plant engineer and structure engineer from my team. The resource needed is a computer with

AutoCAD design software installed, a printer for layout printing and an image projector. Next activity will be developing the proposal.

2.2.2.1.2 Develop partially the proposal according to the developer demands in six days after the meeting with him. This will be accomplished by the architect, plant engineer and structure engineer from my team. The resources needed are tree computers with AutoCAD design software installed and a printer for layout printing. Next activity will be organizing a meeting with the developer.

2.2.2.1.3 Organize a meeting with the developer and obtain his observations or agreement over the proposal. This activity will be done in one day and will be accomplished by the architect, plant engineer and structure engineer from my team. The resource needed is a computer with AutoCAD design software installed and an image projector. Next activity will be completing the proposal.

2.2.2.1.4 Complete the proposal with the observations of the developer. This activity will be achieved in five days and will be accomplished by the architect, plant engineer and structure engineer from my team. The resources needed are tree computers with AutoCAD design software installed and a printer for layout printing. Next activity will be organizing a final meeting with the developer.

2.2.2.1.5 Organize a meeting with the developer and obtain his agreement and signature on the architectural proposal. This activity will be achieved in one day and will be accomplished by the architect from my team. The resource needed is a computer with AutoCAD design software installed and an image projector. Next activity will be obtaining details about green energy equipments.

2.2.2.2 Consult the media for green energy equipment suppliers and organize a meeting with more of them for details regarding their equipments. The information provided will be used for building the technical part of the feasibility study. This activity will be accomplished by plant engineer from my team in a one week amount of time after the architectural proposal is accomplished and agreed by the developer. The resource needed is a computer with internet access. Next activity will be elaborating the solution for utilities.

2.2.2.2.1 Consult the media for green energy equipment suppliers and choose four of them in order to organize a meeting for more details. This activity will be accomplished by plant engineer from my team in one day. The resource needed is a computer with internet access. Next activity will be organizing a meeting with all of them.

2.2.2.2.2 Organize a meeting with all four suppliers in different days. This activity will be accomplished by plant engineer from my team in four days. The resource needed is a computer with Microsoft Office installed. Next activity will be choosing the equipments in order to develop the technical solution.

2.2.2.2.3 Choose the appropriate equipments for utilities solution. This activity will be accomplished by plant engineer from my team in two days. The resource needed is a computer with Microsoft Office installed. Next activity will be elaborating the solution for utilities.

2.2.2.3 Elaborate the solution for providing utilities (hot water, cooling systems, electrical energy) in the building. The activity will be accomplished in two months and will be elaborated by the architect, plant engineer and structure engineer from my team. The resources needed are tree computers with AutoCAD design software installed. Next activity will be contracting a company specialized in studies of impact over environment.

2.2.2.3.1 Elaborate the design with the shape of the building. The activity will be accomplished in two weeks and will be made by the architect from my team. The resource needed is a computer with AutoCAD design software installed. Next activity will be elaborating the structural design for building.

2.2.2.3.2 Elaborate the structural design of the building. The activity will be accomplished in two weeks and will be made by the structure engineer from my team. The resource needed is a computer with AutoCAD design software installed. Next activity will be elaborating the utilities solution design.

2.2.2.3.3 Elaborate the utilities solution design. The activity will be accomplished in one month and will be made by the plant engineer from my team. The resource needed is a computer with AutoCAD design software installed. Next activities will be contracting a companies specialized in studies of impact over environment, geological studies and substantiation and emplacement studies.

2.2.2.4 Contract a company specialized in studies of impact over environment, provide them all the information needed in order to obtain a study of impact over the environment. This study will be included in the feasibility study as a response to a condition for obtaining the construction authorization. The activity will be accomplished by the architect from my team. Start date is first week after collecting data from the terrain and the duration is one month.

2.2.2.4.1 Consult the media for companies specialized in studies of impact over environment and choose one of them according to price and experience. This activity will be accomplished by the architect from my team in one day. The resource needed is a computer with internet access. Next activity will be organizing a meeting with the company represent.

2.2.2.4.2 Organize a meeting with the company represent, discuss the contract details and provide information in order to accomplish the study. This activity will be accomplished by the architect from my team in one day. Next activity will be receiving the study.

2.2.2.4.3 Receive the study of impact over environment after one month from meeting. This activity will be accomplished by the architect from my team in one day. Next activity will be establishing the return on investment time.

2.2.2.5 Contract a company specialized in geological studies and find out if the terrain is appropriate for a construction. Start date is first week after collecting data from the terrain and the duration is one month.

2.2.2.5.1 Consult the media for companies specialized in geological studies and choose one of them according to price and experience. This activity will be accomplished by the architect from my team in one day. The resource needed is a computer with internet access. Next activity will be organizing a meeting with the company represent.

2.2.2.5.2 Organize a meeting with the company represent, discuss the contract details and provide information in order to accomplish the study. This activity will be accomplished by the architect from my team in one day. Next activity will be receiving the study.

2.2.2.5.3 Receive the geological study after one month from meeting. This activity will be accomplished by the architect from my team in one day. Next activity will be establishing the return on investment time.

2.2.2.6 Contract a company specialized in substantiation and emplacement study and obtain the information about the interest of the potential tenants in a building office like this one. Start date is first week after collecting data from the terrain and the duration is one month.

2.2.2.6.1 Consult the media for companies specialized in substantiation and emplacement studies and choose one of them according to price and

experience. This activity will be accomplished by the architect from my team in one day. The resource needed is a computer with internet access. Next activity will be organizing a meeting with the company represent.

2.2.2.6.2 Organize a meeting with the company represent, discuss the contract details and provide information in order to accomplish the study. This activity will be accomplished by the architect from my team in one day. Next activity will be receiving the study.

2.2.2.6.3 Receive the substantiation and emplacement study after one month from meeting. This activity will be accomplished by the architect from my team in one day. Next activity will be establishing the return on investment time.

2.2.3 Establish the costs and the return on investment time in the 6-th month (last month) from the start date

2.2.3.1 Establish the costs of the construction and equipments. This activity will be accomplished by the architect from my team in one week. The resource needed is a computer with internet access and Microsoft Office installed. Next activity will be establishing the costs of the agreements.

2.2.3.1.1 Accomplish the estimated work needed to be done in order to construct the office building and establish the cost of each activity. This will be accomplished by the architect from my team in four days. The resource needed is a computer with internet access and Microsoft Office installed. Next activity will be establishing the costs of the equipments.

2.2.3.1.2 Establish the prices for each equipment installed by consulting the media. This will be accomplished by the architect from my team in tree days. The resource needed is a computer with internet access and Microsoft Office installed. Next activity will be establishing the costs of the agreements.

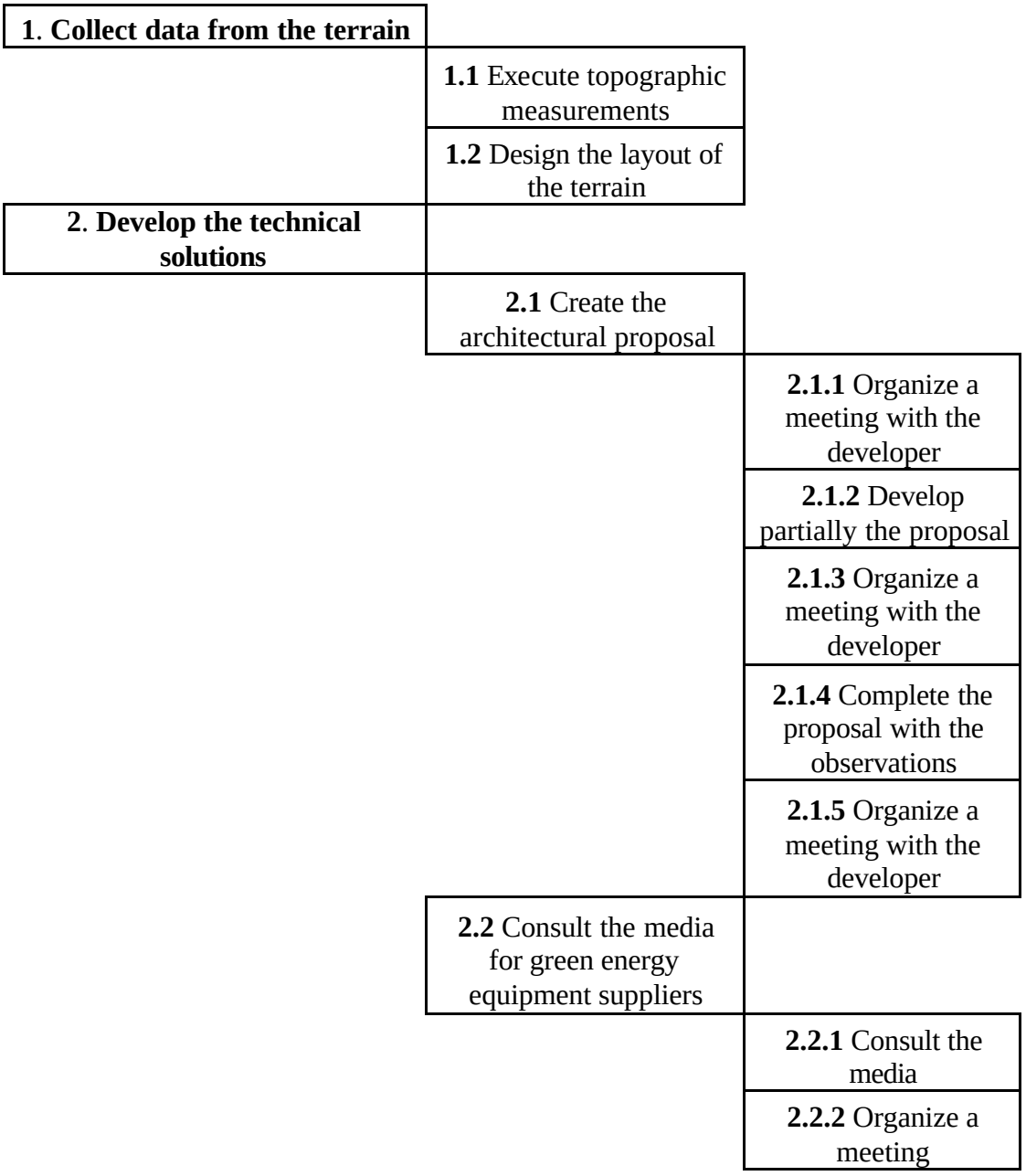
2.2.3.2 Establish the costs of the agreements needed by consulting the internet site of each agreement provider. This activity will be accomplished by the architect from my team in six days. The resource needed is a computer with internet access and Microsoft Office installed. Next activity will be calculating the return on investment time.

2.2.3.3 Calculate the return on investment time based on the costs involved and studies received and approve the feasibility study to the general manager. This

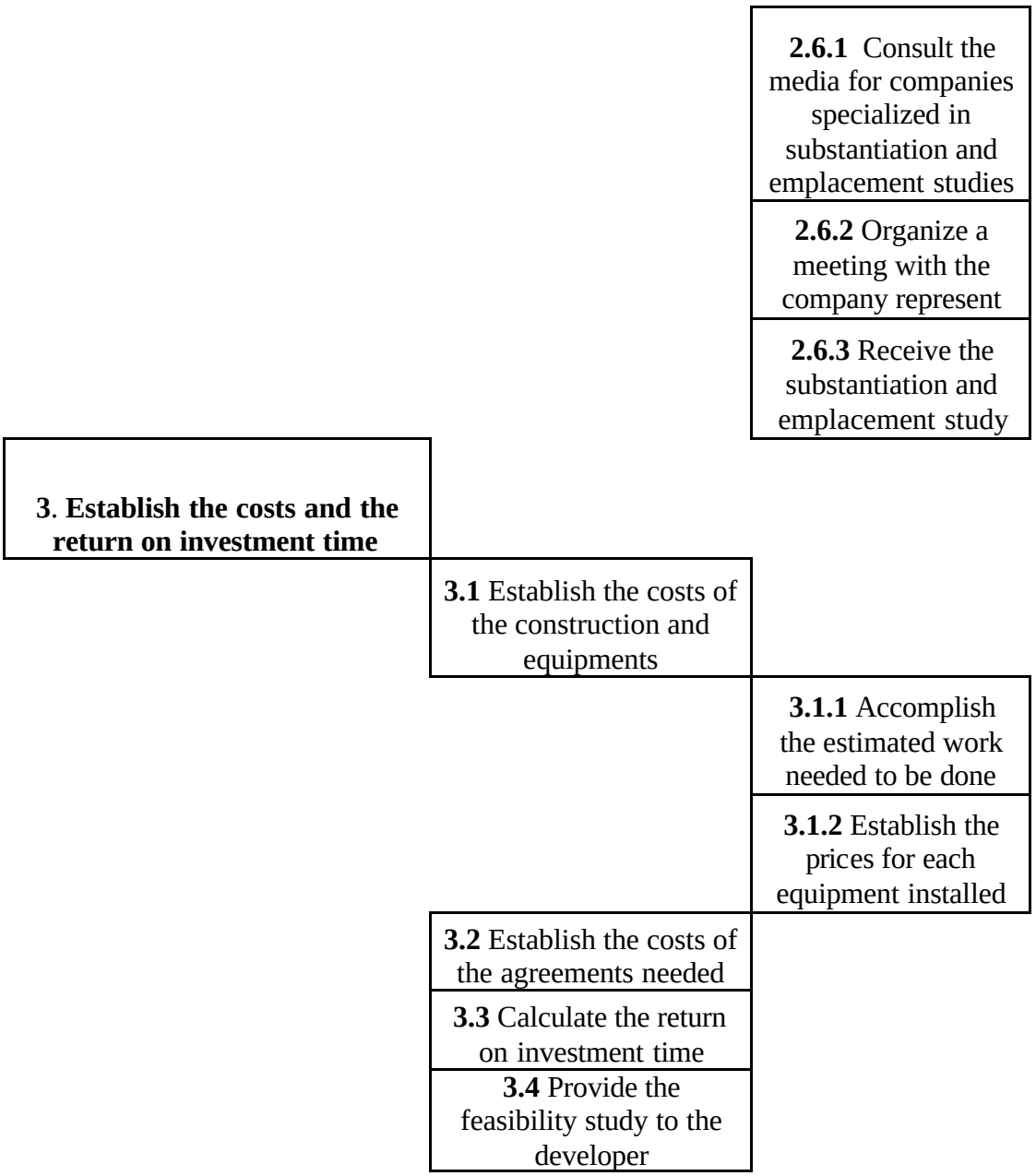
activity will be accomplished by the architect from my team in one day. The resource needed is a computer with Microsoft Office installed. Next activity will be providing the feasibility study to the developer.

2.2.3.4 Provide the feasibility study to the developer and attain a handover protocol. This activity will be accomplished by the architect from my team in one day. The resource needed is a computer with Microsoft Office installed and a printer.

2.3 Work Breakdown Structure



	2.2.3 Choose the appropriate equipments for utilities solution
2.3 Elaborate the solution for providing utilities	
	2.3.1 Elaborate the design with the shape of the building
	2.3.2 Elaborate the structural design of the building
	2.3.3 Elaborate the utilities solution design
2.4 Contract a company specialized in studies of impact over environment	
	2.4.1 Consult the media for companies specialized in studies of impact over environment
	2.4.2 Organize a meeting with the company represent
	2.4.3 Receive the study of impact over environment
2.5 Contract a company specialized in geological studies	
	2.5.1 Consult the media for companies specialized in geological studies
	2.5.2 Organize a meeting with the company represent
	2.5.3 Receive the geological study
2.6 Contract a company specialized in substantiation and emplacement study	


2.6.1 Consult the media for companies specialized in substantiation and emplacement studies
2.6.2 Organize a meeting with the company represent
2.6.3 Receive the substantiation and emplacement study
3. Establish the costs and the return on investment time
3.1 Establish the costs of the construction and equipments
3.1.1 Accomplish the estimated work needed to be done
3.1.2 Establish the prices for each equipment installed
3.2 Establish the costs of the agreements needed
3.3 Calculate the return on investment time
3.4 Provide the feasibility study to the developer

3. TIME MANAGEMENT PLAN

The Gantt chart illustrates the start and finish dates of the terminal elements and summary elements of the project.

To view the chart consult appendix on page 20.

4. HUMAN RESOURCE MANAGEMENT

Human Resource Management is the management of organization's employees.

Practicing good human resource management enables the project manager to express his goals with specificity, increasing worker comprehension of goals, and provide the necessary resources to promote successfully accomplishment of said goals.

The Linear Responsibility Chart describes the participation by various roles in completing tasks or deliverables for the project.

Linear Responsibility Chart

Activity	General Manager	Architect	Plant engineer	Structure engineer	Topographic engineer
1.1 Execute topographic measurement	**2**	**1; 5**			**7**
1.2 Design the layout of the terrain	**2**	**1; 7**			
2.1 Create the architectural proposal	**2**	**1; 7**	**7**	**7**	
2.2 Consult the media for green energy equipment suppliers and organize a meeting	**2**	**1; 5**	**7**		
2.3 Elaborate the solution for providing utilities	**2**	**1; 7**	**7**	**7**	
2.4 Contract a company specialized in studies of impact over environment	**2; 5; 6**	**1; 7**			
2.5 Contract a company specialized in geological studies	**2; 5; 6**	**1; 7**			
2.6 Contract a company specialized in	**2; 5; 6**	**1; 7**			

substantiation and emplacement studies					
3.1 Establish the costs of the construction and equipments	**2**	**1; 7**	**4**	**4**	
3.2 Establish the costs of the agreements needed	**2**	**1; 7**	**4**	**4**	
3.3 Calculate the return on investment time	**2**	**1; 7**	`		
3.4 Provide the feasibility study to the developer	**2; 5; 6**	**1; 7**			

Legend

1- actual responsibility
2- general supervision
3- must be consulted
4- may be consulted
5- must be notified
6- approval authority
7- needs to perform

5. COMUNNICATION MANAGEMENT

Communications management is the systematic planning, implementing, monitoring, and revision of all the channels of communication within organization.

The project manager must take a contingency approach to communicate with his employees on a personal level. In order to accomplish the project, several meetings must be achieved.

The next table illustrates the coordination between team members and the activities to be achieved in order to provide the feasibility study.

Target audience	Person to convey the message	When the message in conveyed	Format of the message	Message content
The general manager	The architect	after finishing the draft of architectural proposal	printed layout	the draft of architectural proposal in order to be presented to the developer
The developer	The architect	after the project manager approval	printed layout	the draft of architectural proposal in order to obtain the initial demands regarding the shape, equipments and inside spaces of the future office building
The general manager	The architect	after developing partially the proposal according to the developer demands	printed layout and 3D view using an image projector	the architectural proposal with the observations of the developer included in order to be presented to the developer
The developer	The architect	after the project manager approval	printed layout and 3D view using an image projector	the architectural proposal with the observations of the developer included in order to obtain the agreement and signature on the proposal
The general manager	The architect	after finishing the feasibility study and calculate the return on investment time	printed layout and document	the feasibility study and the time needed for return on investment in order to be presented to the developer
The developer	The architect	after the project manager approval	printed layout and document	the feasibility study and the time needed for return on investment

6. PROJECT COST MANAGEMENT

6.1 Resource pool description and cost breakdown structure

Cost management is the process of planning and controlling the budget of the project. During the project, all expenses are recorded and monitored to make sure they stay in line with the cost management plan.

Resource type	Name	No.	Days of work	Total hours	Price/hour(euro)	Estimated costs (euro)
Human resource	Architect	1	138	1104	8	8,832
	Plant engineer	1	38	304	5	1,520
	Structure engineer	1	33	264	5	1,320
	Topographic engineer	1	2	16	5	80
Equipment	Electronic theodolite	1				1,000
	PC Computer with internet access	3				2,400
	Printer for layout printing	1				500
	Image projector	1				800
Contract services	Impact over environment study	1				2,000
	Geological study	1				700
	Substantiation and emplacement study	1				3,000
Materials	Electricity	100 kilowatt hour				20
	Paper quire (500 sheets)	3 boxes				15
	Ink toner	2				100
	AutoCAD design software license	3				6,500
	Microsoft Office license	3				700
Total costs (euro)						29,487 €

7. PROJECT QUALITY MANAGEMENT

7.1 Project quality definition

Project quality management involves making sure the project meets the needs that it was originally created to meet and that stakeholder expectations were met.

Quality control involves:

? monitoring specific project results to determine if they meet quality standards

? identifying ways to eliminate causes of unsatisfactory results

? primary purpose in order to prevent a process from producing a poor quality product or service

7.2 Quality planning and control, list of deliverables and acceptance criteria and key quality concepts measurement

Key concept	Deliverable	Activity	Quality event	Quality materials	Person who delivers	Purpose
Reliability	Draft of architectural proposal	2.1	The general manager approval	Architectural proposal template and printed layout	The architect	Ensure the architectural proposal is well constructed, accurate and ready to be presented to the developer
Feasibility	Green energy equipments integration	2.2.3	Architect review	Suppliers lists and catalogs	The plant engineer	Review the type of the equipments after the meeting with the suppliers
Feasibility	Solution for utilities	2.3.3	Architect approval	Solution for providing utilities draft and layouts	The plant engineer	Approve the solution about green energy equipments integration in the project

Reliability	Structural solution and design	2.3.2	Architect review and approval	Solution draft and layouts	The structure engineer	Approve the structural solution and integrate in the project
Reliability	The company who provides the impact over environment study	2.4.1	The general manager approval	Reviews from other companies	The architect	Ensure the company who delivers the impact over environment study has experience and knowledge to achieve the study
Reliability	The company who provides the geological study	2.5.1	The general manager approval	Reviews from other companies	The architect	Ensure the company who delivers the geological study has experience and knowledge to achieve the study
Reliability	The company who provides the substantiation and emplacement study	2.6.1	The general manager approval	Reviews from other companies	The architect	Ensure the company who delivers the substantiation and emplacement study has experience and knowledge to achieve the study
Reliability	The feasibility study	3.3	The general manager approval	Printed layout and document	The architect	Approve the feasibility study in order to be delivered to the developer

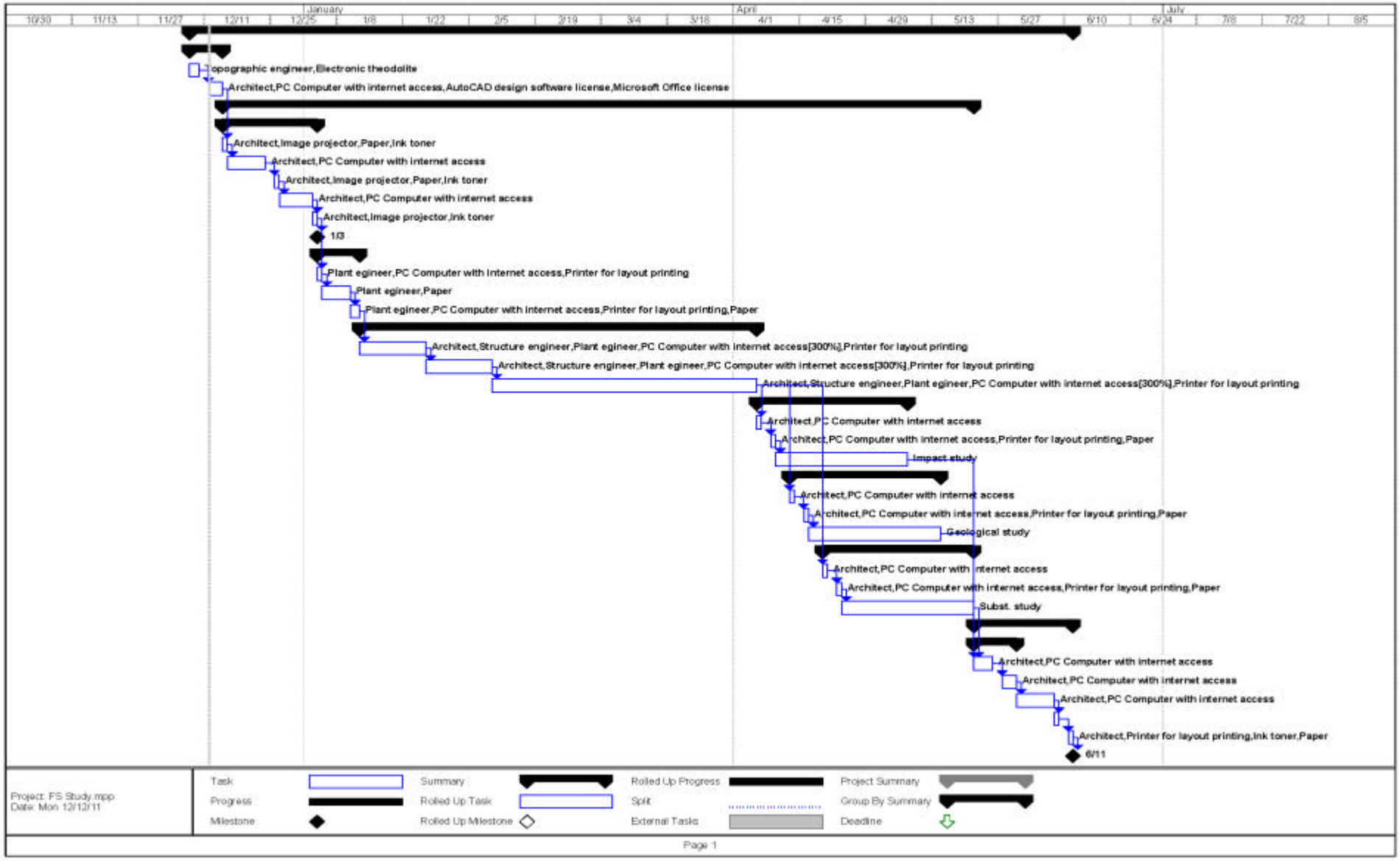
8. PROJECT RISK MANAGEMENT

8.1 List of risks and strategies for tackling major risks

Risk factor	Risk description	Likelihood of occurrence	Severity of Impact	Rating	Strategy to counter risk
Time	Errors in time estimating for achieving the project because of the subcontractors overcome date for studies delivery	2	4	8	Establish contract penalties for subcontractors in case of time overcome for studies delivery
Project difficulty	Difficulty for establishing the solutions for green energy equipments	3	4	12	Employ a plant engineer with high experience
Communication	Difference between the developer desire and final product	4	4	16	Obtain the developer signature on the initial and final proposal
Team communication	Poor communication between team members and poor coordination	2	3	6	Organize coordination meetings every week
Cost	Exceed the estimated cost because the subcontractor offer for studies is more then estimated value	3	4	12	Obtain initial offer from different potential subcontractors
Team productivity	Low team productivity because of the lack of electronic instruments	2	3	6	Buy electronic equipments needed in order to complete the activity without any problems
Team documentation	Lack in technical team documentation about the purpose of project	3	4	12	Allocate time for documentation and present similar achieved project to the team

Rating: 1…8 – Low risk; 9 – Medium risk; 10….25 – High risk

Appendix – Gantt Chart



REHABILITATION OF A DEGRADED PERIURBAN AREA

LTC. Ciprian VÂSCA-ZAMFIR

PROJECT SPONSORS: the owner of the land, the local authority.

Other stakeholders : the local community (legally represented by the local council), neighboring landowners, the ***X & C LTD*** general manager**.**

1. BUSINESS CASE

1. The problem

The existence of degraded land close to the inhabited area is generating large problems, in many plans such as ecological (potential source of infection, contagious disease), socio-economic (land out of the economic circuit, generating economic losses for the owners and public budget), securities risk (possible refuge for unwanted "populations"- thieves, gangs, homeless, and other) and also more negative effects on the public image etc.

The owner has designated the ***X & C LTD*** to make a professional project based on which he will propose to the local authority, if they support 50% of the project costs, a donation consisting of the park, with all the facilities built in this project.

There should be a negotiation between them finalized with a contract, and the moment considered appropriate for it: before starting the project activities described on section 3.

Why the owner want to do it? Probably he own more land in the area and this is a way to increase value or he simply want to do something for the people, and so on. We just know that he ask for this project

2. Project manager:

The general manager of the company proposes as project manager one of the specialists in the company, with good expertise in the field of such type of projects. He must have the acceptance of the other sponsor.

The Project manager will be authorized by the sponsors to take any decision considered necessary, as time as no budget overruns appear.

His authority in the project is available into the project estimated time limits (starting date: 18th January 2012, ending date: 6th December 2013).

He chooses the project teams members, all employees of the company X & C LTD. ***The*** *main activity object of the company is "Landscape architecture and services".*

2. SCOPE MANAGEMENT PLAN

2.1. The main goal of the project is to solve some community problems caused by the existence of the unwanted neighborhoods, by creating/developing a 2.0 hectares park in a private area closed to the town "A".

As an interesting aspect: the park will become public after finished, by a donation contract to the public authority of the town.

2.2. The objectives of the project are the following:

1. Restoration of the land biological potential for a proper final destination space**.**

   Start date: 1/18/2012; End date: 4/16/2012

2. Obtaining approvals/legal advices for the park.

   Start date: 1/24/2012; End date: 6/22/2012

3. Building functional infrastructure and landscape reconfiguration.

   Start date: 6/22/2012; End date: 8/30/2012

4. Reconfiguration of vegetation, based on design on section 2.1.3.

   Start date: 7/2/2012; End date: 10/25/2013

5. Transfer of property rights and duties stipulated by the owner in the act of donation to the local jurisdiction.

   Start date: 12/5/2013; End date: 12/6/2013

2.3. Work Breakdown Structure developed into this project:

1.1. Restoration of the land biological potential for a proper final destination space:

1.1.1. Performing some dedicated studies: geological, climatic, agrochemical, botanical (flora), environmental sustainability, with the help of experts (from specialized private institutions or public authority);

1.1.1.1. Contracting for the execution of a research center studies (laboratory) approved (ex. USAMV Bucharest).

1.1.1.2. Execution of studies: field, laboratory etc.

1.1.1.3. Interpretation of results and establish measures to be taken.

1.1.2. Application of curative and preparative methods based on the conclusions of studies (using the service of ***X & C LTD.*** and according to the technological knowledge of the project team).

1.1.2.1. Contracting with the ecological landfill administrator.

1.1.2.2. Mechanical cleaning and disposing of waste.

1.1.2.3. Applying agro technical specific methods (try to avoid chemical if possible).

1.1.2.4. Land basic preparation.

1.1.3. Partial acceptance of the works. (*milestone*)

1.2. Obtaining approvals/legal advices for the park:

1.2.1. Design (by a mixed team coordinate by a landscape architect and a horticultural engineer/ authorized person from the project team).The team will be propose by the project manager (PM) decision.

The design will consist of:

- Functional infrastructure (detailed in the section 3).
- Minor landscape reconfiguration (executable in the section 3).
- Vegetation types and emplacement.

1.2.2. Partial acceptance of the works. (*milestone*)

1.2.3. Obtaining of approval / legal advices (Note: The obligation to obtain approvals is the duty of the landowner, through its authorized representatives)

1.2.3.1. Written consent of the local authority obligations and duties incumbent under the act of donation.

1.2.3.2. The urbanism certificate.

1.2.3.3. Acceptance of utilities suppliers.

1.2.3.4. The environmental permits, fire service and sanitary.

1.2.3.5. Construction authorization. (*milestone*)

1.3. Building functional infrastructure (land drainage, pedestrian paths, electrical networks, water, sewerage, sanitation, parking, commercial small places, multifunctional sports field- tennis, basketball, football- with all the facilities), **small entertainments** for children (playgrounds, cycle paths and tracks for roller skates, etc.) and for other peoples (resting places, open air libraries), and **landscape minor reconfiguration** (small lakes, hills, panoramic view points etc.):

1.3.1. Procurement of the required services, materials and equipment.

1.3.2. Execution (according to the design on section 1.2.1.).

1.3.2.1. Grid, delimitation, markings of technical routes.

1.3.2.2. Effective execution (land drainage, excavation, filling etc.).

1.3.3. Partial acceptance of the works. (*milestone*)

1.4. Reconfiguration of vegetation, based on design on section 1.2.1. (A team of workers led by a horticultural engineer/authorized person from the project team). All the plant will be choose according to the result of the studies made on section 1.

1.4.1. Procurement processes for 1.4.3.1. and 1.4.3.2. (with delivery on autumn and spring) and other materials.

1.4.2. Final preparing of the land.

1.4.2.1. Land smoothing,

1.4.2.2. Grid, delimitation, markings

1.4.3. Effective execution

1.4.3.1. Trees and shrubs plantations:

1.4.3.1.1. Transport.

1.4.3.1.2. Planting.

1.4.3.1.3. Protect of sensible plant during the winter time.

1.4.3.2. Lawn and flower design:

1.4.3.2.1. Transport.

1.4.3.2.2. Planting.

1.4.3.2.3. Plant care to the completion of the project. (see section 1.5.1.)

1.4.4. Partial acceptance of the works. (*milestone*)

1.5. Transfer of property rights and duties stipulated by the owner in the act of donation to the local jurisdiction. (3 month after reception of section 1.4.4)

1.5.1. Final acceptance of the project. (*milestone*)

1.5.2. Signing papers.

3. TIME MANAGEMENT PLAN

In the *appendix nr.1* we present an extract of the Gantt chart with detailed time limits of the activities in the project.

According to the Gantt chart most of the activities are in the year 2012 (activities on section 1.1. - 1.4.3.) and just some in the year 2013. Is the specific of the technology in this type of project that working with biological material (plants) must take place in spring or autumn. These works can be performed in other times of the year, but on increased costs and risks.

In the table no.1 there are included the milestone in the project, point with a very important in the project. Each of them confirms that one stage of the project is finished, with expected results.

Table no. 1.Project milestones

Activity	Milestone description	Date
1.1.3.	Partial acceptance of the works (Land preparing)	04/13/12
1.2.2.	Partial acceptance of the works (Design)	02/06/12
1.2.3.5.	Construction authorization (Legal approval)	06/22/12
1.3.3.	Partial acceptance of the works (Infrastructure, landscape)	09/21/12
1.4.4.	Partial acceptance of the works (Plantations)	09/13/13
1.5.1.	Final acceptance of the project	12/05/13

4. HUMAN RESOURCE MANAGEMENT

The Linear Responsibility Chart of Project Management Relationship is summarized in the table no.2.

Table no. 2. The Linear Responsibility Chart of Project Management Relationship

Activity	General manager	Project manager	Team 1 manager	Team 2 manager	Team 3 manager
Establishing of department policies and objectives	1	3	3	3	3
Integration of project	2	1	3	3	3
Project direction	4	1	3	3	3
Project charter	6	1	5	5	5
Project planning	4	1	3	3	3
Project-functional conflict resolution	1	3	3	3	3
Functional planning	2	3	1	1	1
Functional direction	2	4	1	1	1
Project budget	6	1	3	3	3
Project WBS	6	1	3	3	3
Functional control	2	3	1	1	1
Overhead management	2	3	1	1	1
Strategic projects	6	4	1	1	1

Legend: 1.actual responsibility, 2.general supervision, 3.must be consulted, 4.may be consulted, 5.must be notified, 6.approval authority

All the team members, including the PM, as we already said in the section III, are permanent employees of the company. They are involved in many projects (the main activity object of the firm is Landscape architecture and services).

Team 1- Design: main responsibilities: section 1.2.1.

- manager: landscape architect,
- members: horticultural engineer, land melioration and surveyor engineer, designers.

Team 2- Execution: main responsibilities: sections 1.1.2, 1.3.-1.4.

- manager: horticultural engineer,
- members: land melioration and surveyor engineer, foreman, drivers for mechanical equipments, workers.

Team 3- Administrative: main responsibilities: documents, acquisitions, others.

- manager: the project manager,
- members: accountant, secretary, purchasers, delegates, administrator- storekeeper.

All the team manager have and other responsibilities into the project (eg. domain of quality, risks strategy so on)

5. COMMUNICATIONS MANAGEMENT

Project team directory

The following template (table no.3) presents contact information for all persons identified in this communications management plan.

The email addresses and phone numbers in this table will be used to communicate with these people.

Table no.3. Contact information

Role	Name	Email	Phone
Project Sponsors			
Project Manager			
Other Stakeholders			
Project Team 1			
Project Team 2			
Project Team 3			

The **Communications Matrix,** which identifies the communications requirements for this project is presented in the next table (table no.4.).

Table no.4. The COMMUNICATIONS MATRIX

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable
Kickoff Meeting	Introduce the project team and the project. Review project objectives and management approach.	Face to Face	Once	PSAD T1,T2,T3	Project Manager	Agenda Meeting minutes
Project Team Meetings	Review status of the project with the team.	Face to Face	Weekly	T1,T2,T3	Project Manager	-
Technical Design Meetings	Discuss and develop technical design solutions for the project.	Face to Face	As Needed	Project Technical Staff	Technical Lead (team 1 manager)	Meeting minutes
Project Status Meetings	Report on the status of the project to management.	Face to Face	On each stage of work (before PA).	T1,T2,T3	Project Manager	Meeting minutes
Project Status Reports	Report the status of the project including activities, progress, costs and issues.	Email	After each stage of work (PA).	PSAD T1,T2,T3	Project Manager	PA minutes
Final acceptance of the project	Report the final status of the project.	Face to Face	After final acceptance	PSAD T1,T2,T3	Project Manager	Final acceptance minutes

Legend of abbreviation: T1, T1, T3 = Project team managers 1, 2, 3; PSAD = authorized delegate of the project sponsors; PA= partial acceptance of the works

6. PROJECT COST MANAGEMENT

6.1. Resource pool description

The main resources needed to conduct the project in good condition are presented in Table no.5. Resources were structured in three main categories: human resources, which will be provided in the company, mechanical resources (equipment) and material resources.

For categories 2 and 3 will appeal to both rentals and purchases from other companies or from specialized suppliers (especially for the category of material resources).

The estimated cost for each of the resources is presented in Appendix no.2.

Table no.5. Resource pool description

Resource type	Name	Number
Skilled resources/human resource	Landscape architect	1
	Horticultural engineer	1
	Land melioration and surveyor engineer	1
	Designers	2
	Purchasers, delegates	2
	Secretary (people to work with documents)	1
	Accountant	1
	Administrator (storekeeper)	1
	Foreman	1
	Drivers for mechanical equipments	2
	Permanent workers	6
Equipment	Ground work system of machines.	1
	Tiller with all types of equipment	1
	Multifunctional vehicle (excavator, bulldozer)	1
	Topographic tools	1 set
	Design workshop tools	1
	Computers with internet connection and printers	2
	Communications equipments: fax, mobile phones,	1; 3
Materials	Water pipes	1100 m.
	Hydrants	20 pieces
	Drainage pipes	1100 m.
	Drainage collectors	20 pieces
	Sewer pipes	1100 m.
	Sewer manholes	20 pieces
	Sanitary (capacity for 10 people)	10 sets
	Lighting poles (with photovoltaic power system)	100 pieces

	Electrical control panels	5 sets
	Electric cables	2000 m
	Electric lamps (bulbs)- different power	300 pieces
	Timber	2 m^3
	Different hand tools (spades, shovels, rakes, hoes, axes)	60 pieces
	Strings	100 kg
	Gravel and sand on different grain size (0,2 m on paths)	120 m^3 (x 2)
	Eco pavers	2400 m^2
	Ecological outside paints	500 l
	Artificial turf (for sports)	6000 m^2
	Sports furniture: basketball, tennis, volleyball, football	8 sets
	Resilient flooring for playgrounds	4000 m^2
	Playgrounds furniture (swing, rotating, slides, benches)	10 sets
	Prefabricated woodenkiosks	10 sets
	Park furniture (benches, tables, waste bins, bike carriers)	50 pieces
	Different fence types (wood, grid, concrete)	2400 m
	Geotextile sheet	700 m^2
	Trees (from different species and ages)	50 pieces
	Shrubs (from different species) (0.5/m^2)	1300 pieces
	Turf carpet	2.000 m^2
	Flowers (20/m^2), Roses (1/m^2)	20.400 pieces
	Water (1000 l media for a day, 90+ 90 days)	180 t
	Specialized protective and work equipment	20 sets

For a better understanding of the resources distribution in the table below we present the park structure (table no.6.) as it result from the design on section 1.2.1.:

Table no.6. The park structure

Seq.	Surface repartition	Surfaces (m^2)	%
0	**Total surface of the park**	**20,000.00**	**100**
1	Pedestrian paths (2,5 medium late)	2,000.00	10
2	Sports	6,000.00	30
3	Playgrounds	4,000.00	20
4	Trees and shrubs	2,600.00	13
5	Lawn	2,000.00	10
6	Floral composition	1,000.00	5
7	Rosary	400.00	2
8	Other areas (commercial, sanitary, administrative)	2,000.00	10

The total project cost, spread over project objectives is described in the table no.7. As it can be seen the cost currency is Lei, because the project is developed in Romania, and the main activities are evaluated in the local currency.

The major effort, in the term of resources, will be, as expected, in the section 1.3. (58.86%), followed by the section 1.4. (34.34%).

At long distance ranked is the section 1.1. (5.66%), and then the section 1.2. (1.02 %).

For the section 1.5, as can be seen there is the lowest level of assigned cost (0.12%) - almost negligible.

Table no.7. The project total cost

seq.	Main project objectives	Cost		Work	
		lei	%	hours	%
1.	**Rehabilitation of a degraded periurban area**	**728,443.95**	**100.00**	**6,892.33**	**100.00**
1.1.	Restoration of the land biological potential	41,200.00	5.66	388.00	5.63
1.2.	Obtaining approvals/legal advices	7,410.00	1.02	280.00	4.06
1.3.	Building infrastructure and landscape	428,763.88	58.86	538.93	7.82
1.4.	Reconfiguration of vegetation	250,175.05	34.34	5,669.40	82.26
1.5.	Transfer of property rights and duties	895.00	0.12	16.00	0.23

Explanation of the high level of human resources activities requested in section 1.4. Is that the specificity of these activities requires an intensive and extensive labor (several works that are performed manually), compared with the section 1.1., 1.2 or 1.3. where the level of mechanization is predominant.

7. PROJECT QUALITY MANAGEMENT

7.1. Project quality definition

This Quality Management Plan describes the Quality Management Process that the project team will follow to assure the delivery of the project **REHABILITATION OF A DEGRADED SUBURBAN AREA** corresponding to quality standards (environmental, architectural, functional, and legal).

Quality project purpose: to achieve a sustainable and functional landscape, with positive and long-term effect on the environment, with socially and economically benefits too.

7.2. Key quality concepts measurement

1. Environmental sustainability: no pollution sources remain active after proper application of the studies results and recommendations and other specific methods.

2. Realization / existence of a feasible project, applicable in the field.

3. Obtaining / existing of legal approvals / permits.

4. Creating an infrastructure that meets the requirements of an ecological, functional and safety one.

5. Providing environmental conditions for plantations further development.

7.3 List of deliverables and acceptance criteria

The most important deliverable of the project is presented in the table no.8, together with the acceptance criteria.

Table no.8. Project deliverable and quality acceptance criteria

Seq.	List of deliverables	Quality acceptance criteria
1.	Enhances surface	Be within the environmental standards for parks.
2.	Viable project	Designed to contain authorized visas of those who have drawn up, checked and approved.
3	Functional infrastructures	Functionality and correct sizing of the infrastructure (test run where appropriate at each stage subject to reception)
4	Viable well done plantations	Viability of 90-100% and development stage as required by the project

7.4. Quality planning and control: the main activities and the responsibible persons for them good implementation are systemized in the (**table no.9.**).

Table no.9. Quality planning and control

Seq.	Activities	Responsible persons
1.	Partial acceptance of the works - (1.1.3.) (Studies results and other specific measures applied in the field).	PM, HE, LA, LMSE
2.	Partial acceptance of the works - (1.2.2.) (The complex design respects the domain standards).	PM, LA, LMSE, HE
3.	Obtaining of the Construction authorization - (1.2.3.5.) (obtaining of this document means that all previous steps have been correctly)	PM
4.	Partial acceptance of the works - (1.3.3.) (Building infrastructures, entertainments, landscape reconfiguration were done according to their specific standards)	PM, LA, LMSE
5.	Partial acceptance of the works - (1.4.4.) (For all kind of plantations)	PM, LA, HE
6.	Reception for all the procurement processes will include quality check. (1.3.1., 1.4.1.)	PM, A, S
7.	Final acceptance of the project (1.5.1.)	PM, PSAD

Legend: PM= Project Manger, HE= Horticultural Engineer, LA= Landscape architect, LMSE= Land melioration and surveyor engineer, A=Accountant, S= Storekeeper, PSAD = authorized delegate of the project sponsors

8. PROJECT RISK MANAGEMENT

8.1. Risk assessment matrix (R.A.M.)

R.A.M. (**table no.10.**), presents the assign values for the identified 'likelihood' of occurrence (A) and the severity of the 'Impact' (B). By multiplying 'A' and 'B' together results the rating score, which gives an indication of how important the risk is.

According to this matrix the risk plotted above the thick black line ("line of tolerance"), with a score from 10 to 25, are "out of tolerance". Their description is presented in the Risk list on the subchapter VIII.3 and table no.12.

Table no.10. Risk assessment matrix

LIKELIHOOD (A)						
	Very Likely 5	5	10	15	20	25
	Likely 4	4	8	12	16	20
	Feasible 3	3	6	9	12	15
	Slight 2	2	4	6	8	10
	Very unlikely 1	1	2	3	4	5
		Insignificant 1	Minor 2	Significant 3	Major 4	Critical 5
	IMPACT (B)					

LEGEND:

Likelihood of Occurrence (A)		Severity of Impact (B)	
1 - Very unlikely	(hasn't occurred before)	1 - Insignificant	(have no effect)
2 - Slight	(rarely occurs)	2 - Minor	(little effect)
3 - Feasible	(possible, but not common)	3 - Significant	(may pose a problem)
4 - Likely	(has before, will again)	4 - Major	(Will pose a problem)
5 - Very Likely	(occurs frequently)	5 - Critical	(Immediate action required)

As a specific of the project it should be noted the dependence on weather conditions, in terms of field interventions (sections 1.1.2., 1.3.2., and 1.4.). It is therefore imperative to respect the timeline and deadlines of work.

Another important aspect that must be considered is the particularity of working with biological material (*plants*). The best results are expected in the periods specified in section 1.4. Any deviation means increases in costs with possible budget overruns.

8.2. Strategies for tackling major risks

From The List of Risks we select the risk with scores between 10 and 25, and present them in the table no.11, bellowed.

To reduce the effects of the manifestation of these risks, within the project is absolutely necessary to provide a risk strategy. It should be noted that, given the specific character of the project and the company, this project can not exist independently, being in a close connectivity to other similar projects of the company.

Table no.11. Strategies for tackling major risks

Risk No.	Risk	Score	Impact/ Likelihood of occurrence	Risk strategy	Responsibilities on risk mitigation
3.	Delays in execution (1.1.2.2- 1.1.2.4,) due to weather conditions	12	(3)/(4)	-Coordination with other PM of the company on flexible planning of activities and tips for proper management of incidental works.	T1, T2
4.	Resulting of an infeasible project	12	(3)/ (4)	-Regular consultations, when necessary, between T1 and T2 during design to identify and solve the problems. -Verification and certification by the T1 each phase of the project. -Certification and approval by the PM of the entire project.	T1
5.	Failure to obtain approval / legal advice	10	(5)/ (2)	-In task documents will be approved by the PM and submitted in time to PSAD.	PM

6.	Delayed acquisition procedures	12	(4)/ (3)	-The contracts with suppliers / providers, including penalty clauses. -Identification of alternative to initial suppliers' negative response.	T3
7.	Delays in the execution due to weather conditions	12	(4)/ (3)	-Coordination with other PM of the company on a flexible planning and management activities of peaks corresponding incidental works.	T2, PM
Risk No.	Risk	Score	Impact/ Likelihood of occurrence	Risk strategy	Responsibilities on risk mitigation
8.	Poor execution of the works	12	(4)/ (3)	-Reception of the hidden works (network utilities). -Make reception at the end phase.	T2
9.	Delay on procurement processes	12	(4)/ (3)	-The contracts with suppliers / providers, including penalty clauses. -Identification of alternative to initial suppliers' negative response.	T3.
12.	Lack of mechanical execution	12	(4)/ (3)	-Partial acceptance of works. -Coordination with other PM of the company on flexible planning and tips for proper management unexpected works.	T2, PM
13.	Poor execution of the works	12	(4)/ (3)	-Use qualified personnel under the direct supervision and guidance of the foreman and the T2 manager. -Appropriate design of species used.	T2
15.	Poor execution of the works	12	(4)/ (3)		T2

VIII.3 The List of Risk down bellowed present the most important risk identified in the project that may generate troubles into the project activities.

Table no.12. The List of Risks

Seq.	Risk/ Affected activity	Score	Impact/ Likelihood of occurrence	The risk materializes consequence
1.	Delays in the execution of dedicated studies (1.1.1.)	9	(3)/(3)	Delays of activities that depend on 1.1.2. – 1.1.3. and 1.2.
2.	Failure to provide funds for payment-contracted studies (1.1.1.)	8	(4)/(2)	Data provided by the studies may not be used in the project*
3.	Delays in execution due to weather conditions (1.1.2.)	12	(3)/(4)	Loss of optimal period to achieve the level technologically desired, Possible negative interactions, with the activities of other projects using the same mechanical resources Budget overruns** Delay of activities in section 1.1.3. and 1.3
4.	Resulting of an infeasible project*** (1.2.1.)	12	(3)/ (4)	Failure to obtain / delay legal advice Delays subsequent stages (sections 1.3.,1.4., 1.5,) and exceeding project deadlines Budget overrun****
5.	Failure to obtain approval / legal advice (1.2.3.)	10	(5)/ (2)	The project cancellation
6.	Delayed acquisition procedures (1.3.1.)	12	(4)/ (3)	Delay execution of 1.3.2. and 1.4. Loss of some market opportunities Possible increases in costs, budget overruns
7.	Delays in the execution due to weather conditions (1.3.2.)	12	(4)/ (3)	Delay execution of the 1.4. Loss of some market opportunities Budget overruns

8.	Poor execution of the works (1.3.2.)	12	(4)/ (3)	Delaying the execution phase Delay execution of 1.4. Budget overruns
9.	Delay on procurement processes (1.4.1.)	12	(4)/ (3)	Delaying the execution of 1.4.2.
10.	Acquisition of poor quality biological materials (1.4.1.)	8	(4)/ (2)	Delaying execution of the 1.4.2. and 1.4.3.
11.	Delays in the execution due to weather conditions (1.4.2.)	8	(4)/ (2)	Delaying the execution of 1.4.3. Loss of market opportunities Budget overruns
12.	Lack of mechanical execution***** (1.4.2.)	12	(4)/ (3)	Delaying the execution of 1.4.3. Budget overruns******
13.	Poor execution of the works (1.4.3.)	12	(4)/ (3)	Delaying execution of 1.4.3. Budget overruns
14.	Delays in execution due to weather conditions (1.4.4.)	8	(4)/ (2)	Delaying the execution of 1.4.4. Loss of market opportunities Budget overruns
15.	Poor execution of the works (1.4.4.)	12	(4)/ (3)	Delaying the execution of 1.4.4. Budget overruns********

*are protected by intellectual property rights, guaranteed by the contract).

**cost increase due to the need for additional equipment or to force existing ones).

*** which can not be implemented (infrastructure under / over sized, urban furniture inappropriate for the desired purpose, inadequate conditions of the biological material, etc.).

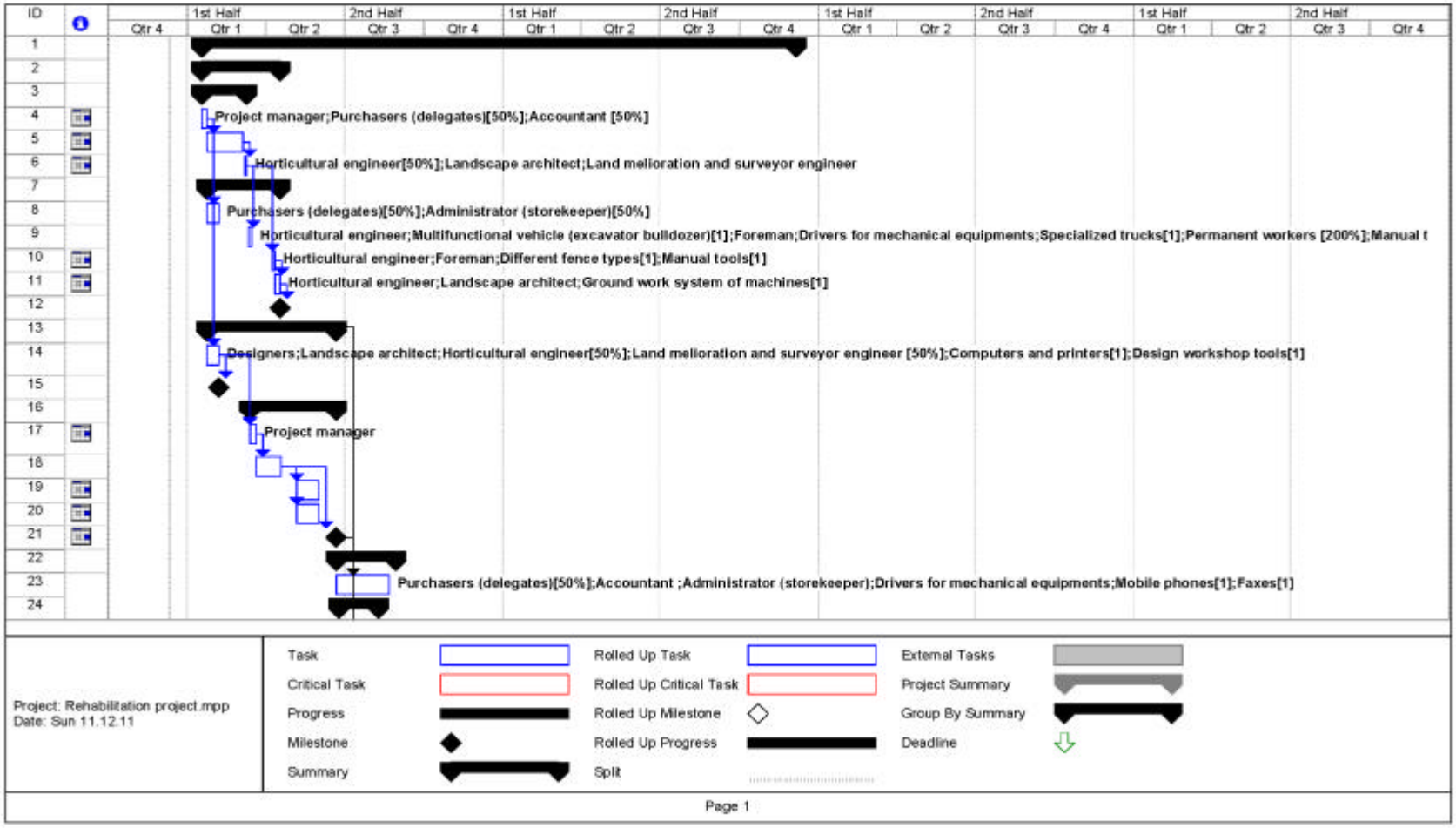
**** by increasing costs of phase-speed recovery from other human resources (external) and subsequently increase costs by purchasing a different biological material (plant root system protected by a pack, or grown in different types of containers, more expensive, which can provide work in section 1.4.3.2. at any time of year).

***** inadequate planning, uncorrelated with other company's projects in progress, machinery jams from various causes.

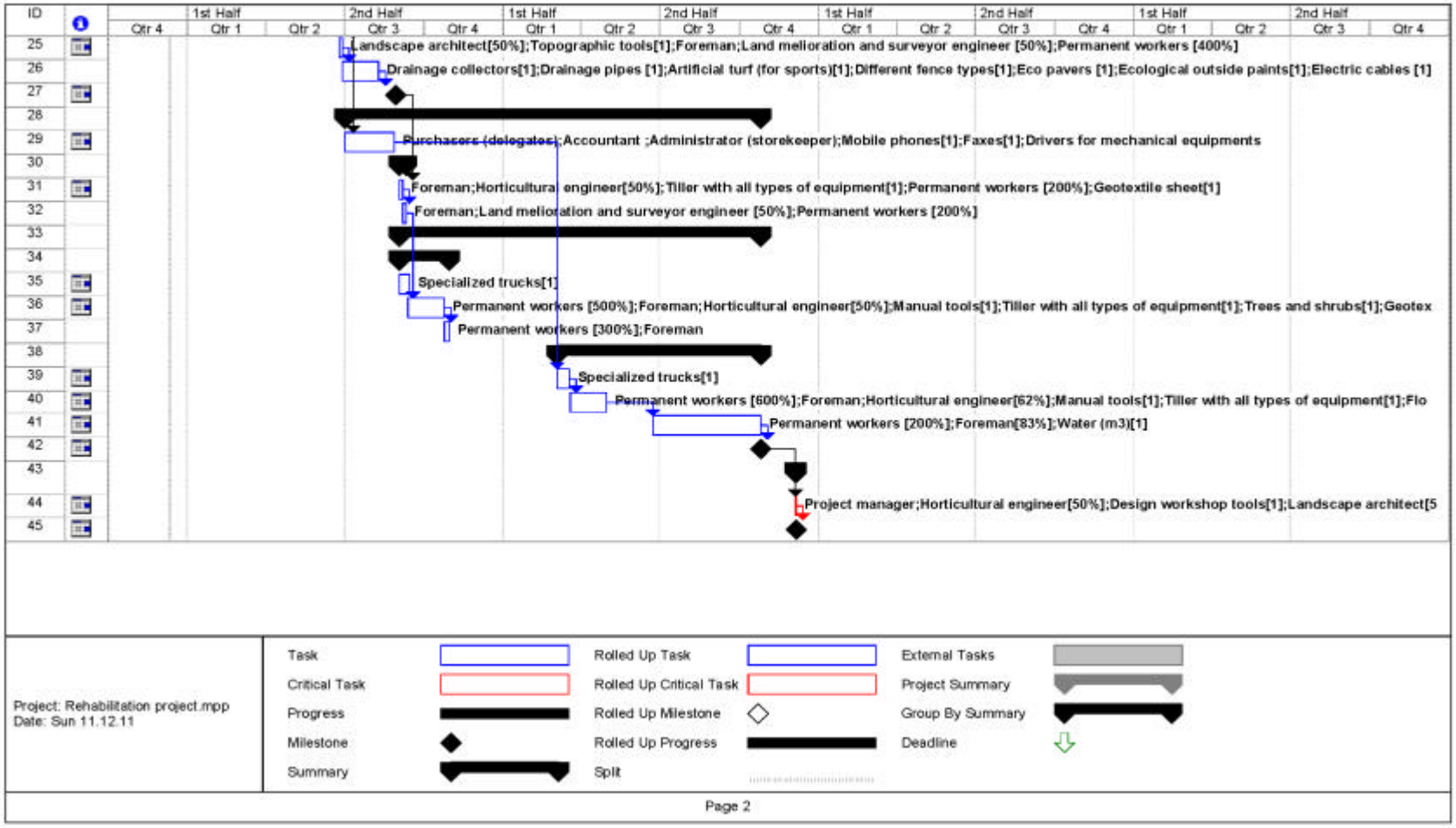
****** through the use of unplanned human resources.

******** (changing biological assortment).

Appendix no.1 The Gantt Chart



Appendix no.1 continued



Appendix no.2. The resources sheet (extract from Microsoft Project)

Rehabilitation project.mpp

ID	Resource Name	Type	Initials	Max. Units	Std. Rate	Ovt. Rate	Cost/Use	Accrue At	Base Calendar
1	Project manager	Work	P	100%	2.000,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
2	Landscape architect	Work	L	100%	1.900,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
3	Horticultural engineer	Work	H	200%	1.900,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
4	Land melioration and surveyor engineer	Work	L	100%	1.900,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
5	Designers	Work	D	200%	1.700,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
6	Secretary (people to work with documents)	Work	S	100%	1.500,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
7	Accountant	Work	A	200%	1.500,00lei/mon	8,00lei/hr	0,00lei	Prorated	Standard
8	Administrator (storekeeper)	Work	A	200%	1.200,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
9	Foreman	Work	F	200%	1.700,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
10	Drivers for mechanical equipments	Work	D	200%	1.300,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
11	Permanent workers	Work	P	800%	1.500,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
12	Purchasers (delegates)	Work	P	200%	1.500,00lei/mon	0,00lei/hr	0,00lei	Prorated	Standard
13	Multifunctional vehicle (excavator bulldozer)	Material	M		0,00lei		4.500,00lei	End	
14	Ground work system of machines	Material	G		0,00lei		5.000,00lei	End	
15	Design workshop tools	Material	D		0,00lei		700,00lei	End	
16	Topographic tools	Material	T		0,00lei		500,00lei	End	
17	Tiller with all types of equipment	Material	T		0,00lei		1.000,00lei	End	
18	Trees and shrubs	Material	T		0,00lei		45.000,00lei	End	
19	Turf carpets	Material	T		0,00lei		80.000,00lei	End	
20	Roses	Material	R		0,00lei		2.000,00lei	End	
21	Flowers	Material	F		0,00lei		3.000,00lei	End	
22	Strings	Material	S		0,00lei		50,00lei	End	
23	Wood land markers (timber)	Material	W		0,00lei		200,00lei	End	
24	Specialized trucks	Material	S		0,00lei		2.500,00lei	End	
25	Water pipes	Material	W		0,00lei		6.000,00lei	End	
26	Hydrants	Material	H		0,00lei		3.110,00lei	End	
27	Drainage pipes	Material	D		0,00lei		2.000,00lei	End	
28	Drainage collectors	Material	D		0,00lei		60,00lei	End	
29	Sewer pipes	Material	S		0,00lei		3.000,00lei	End	
30	Sewer manholes	Material	S		0,00lei		1.000,00lei	End	
31	Sanitary	Material	S		0,00lei		4.400,00lei	End	
32	Lighting poles	Material	L		0,00lei		3.250,00lei	End	
33	Electrical control panels	Material	E		0,00lei		1.625,00lei	End	
34	Electric cables	Material	E		0,00lei		3.000,00lei	End	
35	Electric lamps (bulbs)	Material	E		0,00lei		1.200,00lei	End	
36	Sand	Material	S		0,00lei		10.000,00lei	End	
37	Gravel	Material	G		0,00lei		12.000,00lei	End	
38	Eco pavers	Material	E		0,00lei		24.000,00lei	End	
39	Ecological outside paints	Material	E		0,00lei		1.500,00lei	End	
40	Artificial turf (for sports)	Material	A		0,00lei		150.000,00lei	End	
41	Sports furniture	Material	S		0,00lei		5.200,00lei	End	
42	Resilient flooring for playgrounds	Material	R		0,00lei		100.000,00lei	End	
43	Prefabricated wooden kiosks	Material	P		0,00lei		35.000,00lei	End	
44	Urban furniture	Material	U		0,00lei		30.000,00lei	End	
45	Different fence types	Material	D		0,00lei		24.000,00lei	End	
46	Geotextile sheet	Material	G		0,00lei		1.000,00lei	End	
47	Water (m3)	Material	W		0,00lei		18.000,00lei	End	
48	Specialized protective and work equipment	Material	S		0,00lei		2.000,00lei	End	
49	Computers and printers	Material	C		0,00lei		350,00lei	End	
50	Mobile phones	Material	M		0,00lei		200,00lei	End	
51	Faxes	Material	F		0,00lei		50,00lei	End	
52	Manual tools	Material	M		0,00lei		600,00lei	End	

Page 1

ORGANIZING A CONFERENCE ON CYBER-SECURITY ON BEHALF OF THE ROMANIAN INTELLIGENCE SERVICE

LT Vasile VIERU

1. BUSINESS CASE

1.1. The context

The Romanian Intelligence Service is, by law, the national authority regarding CYBERINT. One of the goals of the Service in near future is to elaborate, within the National Intelligence Community, the National Strategy on Cyber-Security. Ensuring a common vision on the matter, shared by legislators, institutions with legal competence and private companies is one of the tasks the Service has to accomplish.

Enhancing Service's public communication is one of the strategic objectives for the next 5 years, aimed at projecting a correct image of the Service and promoting institutions' role in managing security issues specific to the information age.

1.2. Business Opportunity

This project, which will take the form of a 2-day conference, is a part of a public communication programme aimed at enhancing Service's image as a modern and professional intelligence service. A strong, sustained and skilful public communication is a must for a modern intelligence service

The conference will strive to strengthen Service's capital of image related to the latest international activities on *cyber-intelligence* in cooperation with NATO and USA.

1.3. Goal

The goal of the project is organizing a 2-day conference on Cyber-Security in order to project Romanian Intelligence Service's image as *a modern intelligence service managing modern threats.*

1.4. Quality factors

The success of the project will be assessed according to the following criteria:

- **professionalism** – the extent to which the conference delivers a credible and understandable message, able to project a modern image of the Service;
- **reliability** – the extent to which the project fulfils its objectives;
- **efficiency** – the degree to which the project utilizes minimal resources in fulfilling objectives;
- **financial performance** – the extent to which the project is delivered according to the budgeted costs.

1.5. Authority level

The project manager will be the Chief of the Press Office of the Romanian Intelligence Service, under direct authority of the Director – the general manager of the Public Communication Programme – and the main image vector for the Service.

1.6. Time for achievement

The preparations: will begin 1 month before the event;
The conference: will begin one week after Service's Annual Report, on 2nd of April 2012;
Duration: 2 days.

1.7. Constrains

- status/evolution of national security – major negative events may lead to postponing the conference;
- evolution of internal economical context – a negative evolution of the financial indicators could lead to a contraction of the scale of the conference (length, number of invitees, expenditures etc);
- evolution of SRI image in mass-media – negative events occurring before the conference may affect the approach on public communication;
- feed-back regarding the Annual Report – negative feed-back could determine supplementary objectives for public communication.

1.8. Costs

The maximum budget will not exceed 12.000 €.

The project will aim to use Service's own infrastructure, equipment and personnel at the highest degree of efficiency, according to Service's own standards.

2. SCOPE MANAGEMENT PLAN

2.1. Goal

Organizing a 2-day conference on Cyber-Security in order to project Romanian Intelligence Service's image as *a modern intelligence service managing modern threats.*

2.2. Objectives

1. Planning the conference by setting up conference's agenda, conference's plan and the public communication plan, 1 month before the event;
2. Managing the conference before, during and after 2nd – 3rd of April, 2012;
3. Ensuring positive feed-back from invited partner institutions;
4. Securing positive media coverage before, during and after the conference;
5. Analyzing the results.

2.3. Work Breakdown Structure (WBS)

1.1 setting up conference's agenda

1.1.1 organizing a meeting, coordinated by the Director, with the specialists on cyber-security in order to establish the general message and main themes of the conference, the moderator, the speakers on behalf of the Service, the themes of their speech

1.1.2 organizing a meeting with the Director and the First Deputy in order to establish the guests and guest speakers, and the content of the invitations

1.2 setting up conference's plan

1.2.1 setting up the program for each of the two days of conference

1.2.2 establishing the equipment needed for tech support

1.2.3 establishing the requirements for the catering

1.2.4 establishing the content of presentation kits for guests and presentation kits for accredited journalists

1.3 setting up the public communication plan

1.3.1 establishing the time and means of formal communication with the media

1.3.2 establishing the use of new media and the content that is going to be uploaded

1.3.3 establishing the conference's visual identity (the design is to be used on all communication materials)

1.3.4 establishing the content of letters and questionnaires that are going to be used for receiving feed-back from the participants

1.4 issuing a stage report

1.5 planning finished! ♦

1.6 taking care of pre-event preparations

1.6.1 writing the papers that are to be presented at the conference

1.6.2 sending invitations to the agreed participants

1.6.3 receiving response and making the list of confirmed participants

1.6.4 requesting assistance from other departments in order to get the 20 officers

1.6.5 assigning the officers to each participant for ensuring continuous communication

1.6.6 sending to Acquisitions the needs for catering and for presentation kits

1.6.7 sending to the printing house the orders for presentation kits

1.6.8 closing the contract for catering

1.6.9 closing the contract for presentation kits

1.6.10 preparing the venue

1.6.11 preparing the advisors' room

1.6.12 preparing the media room

1.7 issuing a stage report

1.8 preparations finished! ♦

1.9 ensuring the sequence of activities during the event

1.9.1 first day

1.9.1.1 receiving the guests and the journalists

1.9.1.2 moderating the conference

1.9.1.3 managing the cocktail party

1.9.2 second day

1.9.2.1 receiving the guests and the journalists

1.9.2.2 moderating the conference

1.9.2.3 managing the cocktail party

1.10 ensuring continuous communication with the participants

1.10.1 maintaining permanent contact with the invitee by assigning an officer to each of the invitee

1.10.2 obtaining real time feed-back/assessment on the success of the conference

1.11 conference finished! ♦

1.12 receiving feed-back after the conference

1.12.1 sending a letter (and the questionnaire) to each participant asking for stating their impression on the conference

1.13 securing positive media coverage before the conference

1.13.1 disseminating a press release in order to promote the conference

1.13.2 arranging a short TV-interview with the Director on cyber-security

1.13.3 setting up a cyber-security dedicated section on the web-site

1.13.4 uploading daily facts related to cyber-security on *Facebook*

1.14 securing positive media coverage during the conference

1.14.1 disseminating daily press releases

1.14.2 organizing a press declaration after the 1st day

1.14.3 daily updating of the web-site

1.14.4 daily posting on *Facebook*

1.15 securing positive media coverage after the conference

1.15.1 organizing a press conference

1.15.2 disseminating a press release

1.15.3 updating the web-site with an overview and some conclusions on the event

1.15.4 posting a short version of the conclusions on *Facebook*

1.16 analyzing the results

1.16.1 issuing a preliminary report over planning and executing

1.16.2 invitees feed-back analysis

1.16.3 mass-media feed-back analysis

1.16.4 internet platforms usage analysis

1.16.5 issuing a full report on the conference

3. TIME MANAGEMENT PLAN

The Gantt Chart, as provided by *Microsoft Office Project*, is to be found in Appendix1.

4. HUMAN RESOURCE MANAGEMENT

The following chart shows the persons responsible with the major tasks of the project, the degree of their responsability, as well as the type of authority exercised by each position in performing an activity in which two or more positions have overlapping involvement.

Table 1. Linear responsibility chart

Responsible / Activities	The Director	The First Deputy	The Chief of Press Office	The Moderator	Chiefs of Operational Departaments	The Chief of Logistics and the Chief of IT	The Chief of Aquisitions
setting up conference's agenda	**5**	**4**	**1, 2**	**4**	**3, 4**		
setting up conference's plan	**5**	**4**	**1, 2**	**4**	**3, 4**	**3, 4**	**4**
setting up the public communication plan	**5**	**4**	**1, 2**	**4**	**4**		
issuing a stage report	**5**	**4**	**1, 2**				
taking care of pre-event preparations	**4**		**1, 2**			**1, 3, 4**	**1, 3, 4**
issuing a stage report	**5**	**4**	**1, 2**				
ensuring the sequence of activities during the event	**4**		**1, 2**	**1, 4**	**4**	**1, 4**	
ensuring continuous communication with the participants	**4**		**1, 2**	**1, 4**			
receiving feed-back after the conference	**1**		**1, 2**				
securing positive media coverage before the conference	**5**		**1, 2**				
securing positive media coverage during the conference	**4**		**1, 2**	**4**	**4**		
securing positive media coverage after the conference	**5**		**1, 2**				
analysing the results	**5**	**4**	**1, 2**	**3, 4**	**3, 4**	**3, 4**	

Legend: 1: actual responsibility; 2: general supervision; 3: must be consulted;
4: must be notified; 5: approval authority.

5. COMMUNICATIONS MANAGEMENT

The following matrix shows the stakeholders and the processes required to ensure timely and appropriate generation, distribution and ultimate disposition of project information. It provides the critical links among people and information that are necessary for successful communication between project's subjects.

Table 2. Communication matrix

Project Stage	Target audience	Person(s) to convey the message	When the message is conveyed	Format of the message	Message content
1. Planning the conference	the Director and the First Deputy	the Chief of the Press Office	on the first meeting	presentation + discussion	• Project introduction • Teams and members • Project phases and deliverables • Quality management
	the heads of Operational Departments	- " -	on the first meeting	presentation + discussion	
	the heads of Logistics, Acquisitions, IT	- " -	on the first meeting	presentation + discussion	
	the Press Office	- " -	before the beginning of the project; weekly updates	presentation + stage report	
2. Preparations before the conference	the Director and the First Deputy	the Chief of the Press Office	At the beginning of the stage	stage report (previous stage) + guidelines for the next one	• Planning stage report • Activities to be done in this phase
	the heads of Operational Departme	- " -	At the beginning of the stage	Mail	• Planning stage outcomes (confirmed guests)

	nts				
	the heads of Logistics, Acquisitions, IT	- " -	According to activities	presentation + discussion	• Activities they are in charge with
	the Press Office	- " -	weekly updates	stage report	• What has been done/ what remains to be done
	Guests	the Director (the Chief of the Press Office)	at the time the letters of invitation are send	letter of invitation	• Who? What? When? Where? How? Why?
	Mass-media	the Director (the Chief of the Press Office)	at the beginning of the stage	press release interview	• Who? What? When? Where? How? Why?
	General public	the Director (the Chief of the Press Office)	at the beginning of the stage	web-site *Facebook*	• Who? What? When? Where? How? Why?
3. The conference	the Director and the First Deputy	the Chief of the Press Office	If needed	discussion	• Updates/ emergencies
	the heads of Operational Departments	- " -	If needed	- " -	• Feed-back
	the heads of Logistics, Acquisitions, IT	- " -	If needed	- " -	• Emergencies
	the Press Office	- " -	At each recess	- " -	• Updates/ emergencies
	Guests	the Moderator (the Chief of the Press Office)	1st day, 09.00 1st day, 16.00	speech	• Obvious
	Mass-media	the Director (the Chief	2nd day, 16.00	press release press declaration	• The sequence of activities • Themes/points of debate

		of the Press Office) + the highest invitee		press conference	• Short conclusions
	General public	the Director (the Chief of the Press Office)	Updates after each recess	web-site *Facebook*	- " -
4. Post-conference activities	the Director and the First Deputy	the Chief of the Press Office	1 week after 2 week after	preliminary report full report	• Major problems • Major outcomes • Full analysis over planning and executing • Invitees feed-back analysis • Mass-media feed-back analysis • Internet platforms usage analysis
	the heads of Operational Departments	- " -	1 day after 2 week after	short note by phone abstract of the final report	- " -
	the heads of Logistics, Acquisitions, IT	- " -	1 day after 2 week after	short note by phone abstract of the final report	- " -
	the Press Office	- " -	1 day after 1 week after 2 week after	preliminary analysis preliminary report full report	- " -
	Guests	the Director (the Chief of the Press Office)	5 days after	letter + questionnaire	• Thank you… • Strengths/ weaknesses
	Mass-media	- " -	1 day after, 11.00	press release	• The sequence of activities • Themes/points of debate • Short conclusions
	General public	- " -	1 day after	web-site *Facebook*	- " -

6. PROJECT COST MANAGEMENT

6.1. Resource pool description

Table 3. Resource pool & costs

Resource type	Name	Units	Cost/ unit	Total
Human resource	The Director	1	150 E/day	**3,230 E/day**
	The First Deputy	1	150 E/day	
	The Chief of the Press Office	1	100 E/day	
	Press Office	7	35 E/day	
	The moderator	1	125 E/day	
	Heads of Operational Departments	3	125 E/day	
	Executives from O.D.s	3	35 E/day	
	Head of Logistics	1	125 E/day	
	Head of IT	1	125 E/day	
	Head of Acquisitions	1	125 E/day	
	Executives from Logistics	5	35 E/day	
	Executives from IT	5	35 E/day	
	Executives from Acquisitions	5	35 E/day	
	Web administrator	2	35 E/day	
	Facebook administrator	1	35 E/day	
	Analysts	5	50 E/day	
	Officers ensuring liaison with the guests	20	35 E/day	
	Waiters	10	25 E/day	
Resource type	**Name**	**Units**	**Cost/ use**	**Total**
Equipment/ materials	Conference room (25 seat)	1	300 E	**7,700E**
	Advisor's room (20 seat)	1	200 E	
	Media room (20 seat)	1	200 E	
	Printing house	1	1,000 E	
	Wireless access point	1	100 E	
	Laptops	20	10 E	
	Telephones	20	10 E	
	Tables	10	5 E	
	Chairs	20	5 E	
	Presentation kits	100	30 E	
	Electricity	n/a	1,000 E	
Resource type	**Name**	**Units**	**Cost**	**Total**
Materials	Usb-stick storage devices	100	3,000 E	**11,800E**
	Water	100l	100 E	
	Juice	100l	200 E	
	Champagne	30	1,500 E	
	Food	100	7,000 E	

6.2. Cost-breakdown structure

Since the human resource is formed entirely of Service's employees, they will be paid the regular salary for the entire duration of the project. Most of the equipment will be provided by Service's own resources.

As a result, the actual costs of the project are less than 12,000 Euros.

7. PROJECT QUALITY MANAGEMENT

Each approval of any activity/document involves a quality analysis of that activity/document. Unless it complies with the quality criteria imposed by Service's standards and the quality criteria mentioned above it will not be approved.

Table 4. Quality management

Factor	Description	Deliverable/ acceptance criteria	Activities
Professionalism	The extent to which the conference reached its goal: • deliver an credible and understandable message • projects a modern image of the Service	• the materials and information presented by the Service are accurate and logical • the Service is connected to worlds' major concerns regarding security • the Service has the capabilities to prevent, to protect, to counteract cyber-threats	1.1.1 1.1.2 1.3.1 1.3.2 1.6.1 1.4 1.13
Reliability	The extent to which the Project fulfils the objectives: • planning the conference in a clear and logical manner	• project management plan • quality management plan • the planning meetings deliver accurate tasks with clear responsibilities	All the activities under 1.1, 1.2, 1.3 and 1.4
	• finishing all the preparations before the conference starts	• venue, advisors' room, media room – with all equipment in place and functional • presentation kits ready and in accordance with the standards • contracts for external services signed	All the activities under 1.6 and 1.7
	• managing the conference in a honourably manner	• absence of any incidents • all the programmed activities are fulfilled in accordance with Service's standards	All the activities under 1.9 and 1.14
	• receiving positive feed-back from invitees	• hospitality • maintaining close communication	All the activities under 1.10,

	• securing positive media coverage before, during and after the conference	• addressing their needs • sending letters and questionnaires • hospitality • providing communication infrastructure • closely attended formal communication activities: press releases and press conference • organizing an interview with the Director • updating the web-site • posting on *Facebook*	1.12 + 1.6.2, 1.6.3, 1.6.4, 1.6.5 1.3.1, 1.3.2 + all the activities under 1.13, 1.14, 1.15
Efficiency	The extent to which the Project performs its intended function with a minimum consumption of resources.	• scope statement • time management plan • communication management • resource allocation	All the activities under 1.1, 1.2, 1.3, 1.4, 1,16
Financial Performance	The extent to which the Project meets its financial targets.	• cost management • no more than 10% over budgeted costs are allowed	All the activities under 1.1, 1.2, 1.3, 1.4, 1,16

8. PROJECT RISK MANAGEMENT

8.1. List of risks

A. status/evolution of national security;

B. evolution of internal economical context;

C. evolution of SRI image in mass-media;

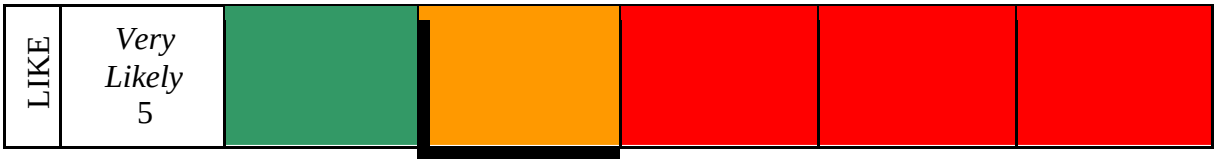
D. feed-back regarding the Annual Report;

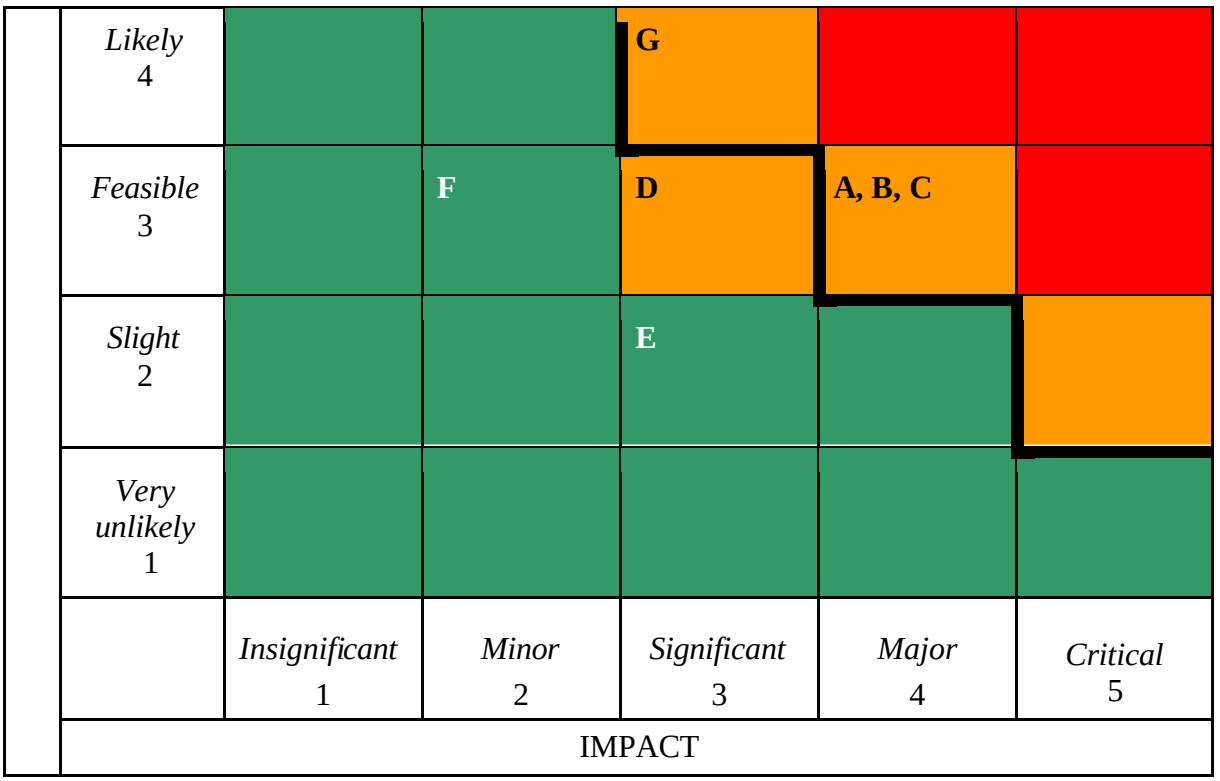
E. security incidents;

F. happening of other events that could turn away media's interest;

G. mass-media perception of the event;

8.2. Risks assessment matrix





Legend:

Green = Low risk; Orange (amber 9) = Medium risk; Orange (amber 10 –12) = High risk; Red = High risk

Likelihood of Occurrence		Severity of Impact	
1- Very unlikely	(hasn't occurred before)	1 - Insignificant	(have no effect)
2 - Slight	(rarely occurs)	2 - Minor	(little effect)
3 - Feasible	(possible, but not common)	3 - Significant	(may pose a problem)
4 - Likely	(has before, will again)	4 - Major	(will pose a problem)
5 - Very Likely	(occurs frequently)	5 - Critical	(immediate action required)

8.3. Strategies for tackling major risks

A. status/evolution of national security

Although there are no strong reasons to forecast major mutations in the status of the national security, there are always serious threats that could develop in a short time.

The Service has the advantage of being the main institution managing these threats, fact that can provide enough time and means to adapt and to ponder a proper response plan.

Based on the severity of impact of such threats the Service could choose to mitigate negative outcome through public communication methods, or even to postpone the conference.

B. evolution of internal economical context

Major concerns derive from the European economical context: the crisis of the Euro, national debts, banks (constricting credit and exacerbating the squeeze on Europe's

economies), financial markets (will require slashing deficits from the embattled economies on the periphery of the euro zone).

For the project this means an environment marked by economical crisis that could be impervious to a discourse on cyber-security.

The Service should emphasize the importance of managing cyber-threats as part of the effort to prevent or minimize economical and financial costs, as well as the importance of international engagements in this matter.

C. evolution of SRI image in mass-media

In the latest months, the image of the Service reflected by mass-media is characterized by positive parameters in terms of legality, legitimacy, awareness, competence.

It's safe to assume that in the absence of a real negative event/crisis involving the Service as a whole or Service's employees, Service's image should not be affected in a negative manner.

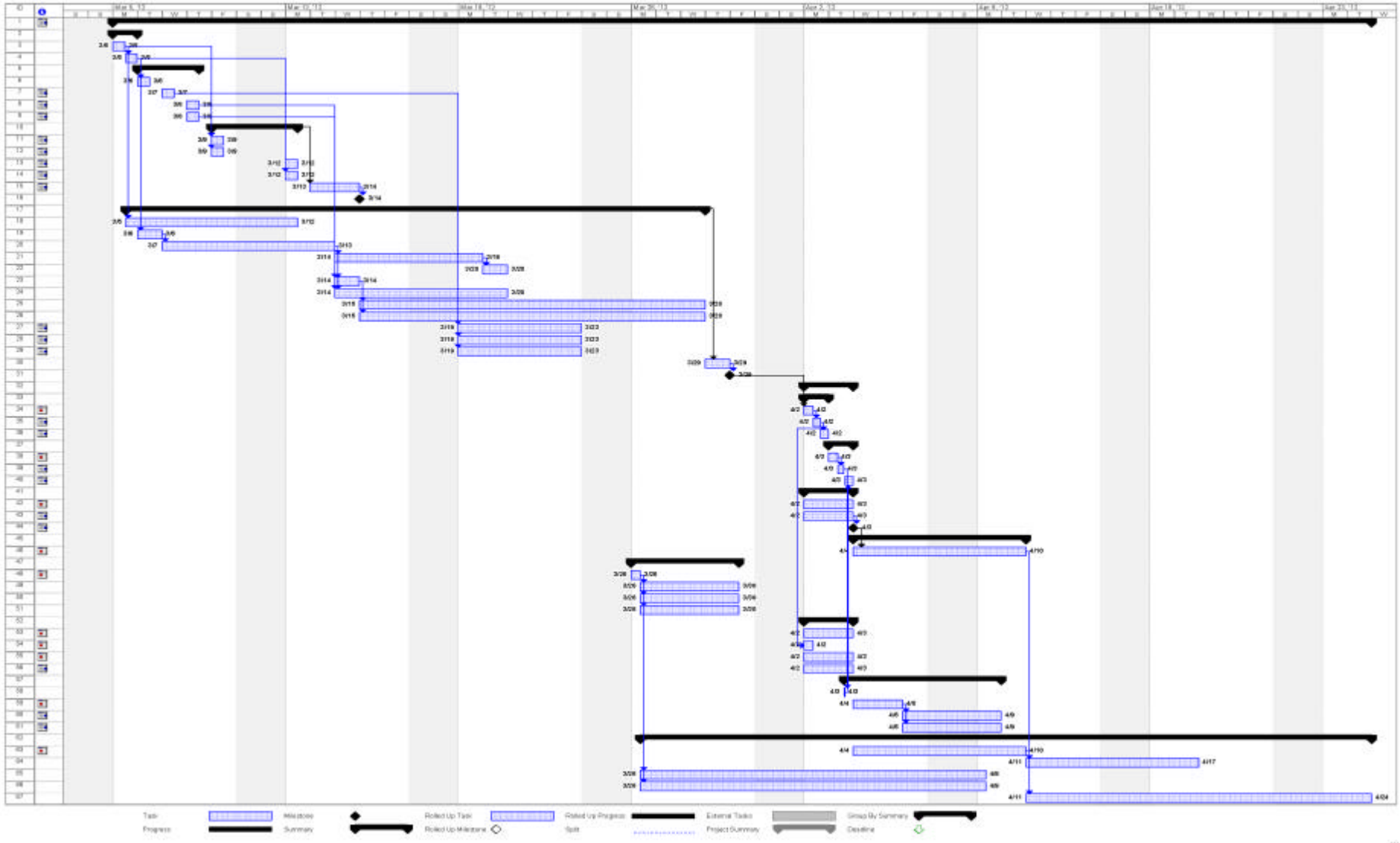
If a negative event should occur, immediate measures must be taken, according to Service's own procedures and standards (regarding legal constraints, public communication etc.).

G. mass-media perception of the event

Every public relations/public communication event undergone by the Service involves a high amount of risk regarding the media coverage and the tone of that coverage.

A lot of effort will be invested in ensuring appropriate conditions for the journalist attending the conference and on formal and informal communication with the media.

We will focus on delivering a credible and professional message in order to prevent attacks from hostile media and to keep neutral and benevolent media well informed, able to disseminate accurate and veridical information.


Mar 5, '13
Mar 12, '13
Mar 19, '13
Mar 26, '13
Apr 2, '13
Apr 9, '13
Apr 16, '13
Apr 23, '13
Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Milestone
Rolled Up Progress
Split
External Tasks
Project Summary
Group By Summary
Deadline