



DELIVERABLE

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D1.3 – Risk management plan

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1. INTRODUCTION

1.1 Scope and objectives of the deliverable

The aim of the risk management activity, plan connected to the project implementation is through the use of available information, knowledge and methodology base regarding the given project (defined in the AAL project proposal)

- (1) mapping and definition of range of potential forthcoming, possible negative events;
- (2) definition and monitoring of real probability level of their occurrence and the seriousness of their consequences;
- (3) definition of tools for minimalization and systematic management of insecurities and consequences of events;

The objective of this risk management plan: planned and regulated implementation of risk management activity to implement the ElderHop project tasks and objectives on the optimal level of implementation with a risk level which is acceptable for all project partners participating in the implementation.

Definitions

Risk: Every unexpected, uncertain event/factor, which occurrence, impact makes an effect on the project implementation and/or project results

Process of risk management:

- (1) Systematic, documented identification of risk factors
- (2) Complete analysis of factors based on the probability of occurrence and degree of their effects. Result of this activity is the list of factors, which shows the focus from the biggest danger to the smallest one for the stakeholders.
- (3) Creation of reaction strategy, so the definition and implementation of planned action plan for prevention or reduction of effects.
- (4) Re-evaluation (identification, analysis) of risk factors along the project implementation milestones and – if necessary – correction of reaction strategy

Methodology tools used for identification of risk factors

- (1) Expert opinion, expert consultancy, evaluation of experiences
- (2) Analysis of project implementation process and of coherence system of its linkages.

Alternatives for risk factors' management

- (1) Removal of risk factors – elaboration of such a project implementation plan in which the defined factor cannot occur
- (2) Reduction of feasibility of risk occurrence and/or the degree of risk's effects – definition of action and process control plans and responsibility areas
- (3) Sharing of risk effects – use of risk and work sharing strategies between stakeholders (institutions, persons etc.)
- (4) Elaboration of alternative task implementation plans
- (5) Acceptance of risk factors with the creation of eligible financial reserves

Risks defined on the present information and knowledge regarding the successful project implementation, which enables the achievement of ElderHop project's objectives will be presented in details within the following parts of this document. Three steps of international risk management practice will be mapped in the structure of this study:

(1) Identification: in tabular format the risk factors regarding project management and project implementation will be presented. Definition of structure of collected risk factors:

- (I) Risk factors based on the management of project activities
- (II) Risk factors which originate from the environment of project implementation and which has an important effect on the project implementation, project management

(2) Evaluation: visualization of independent, measurable parameters of each risk factor

(3) Management: identification of activities suggested for elimination or reduction of risk factors

1.2 Structure of the deliverable

The report is structured in 5 chapters.

Chapter 2 collects all the potential risk factors which can be relevant in the case of implementation of ElderHop project. This chapter provides a wide range of risk factors, but according to our opinion and experiences it is better to calculate with all these options as if we consider them, in the case of emergency we can give a better, quicker and more suitable reaction to them.

Chapter 3 analyses those risk factors which can really occur during the whole project implementation phase. These factors are potential factors, but at the evaluation of them we can create a simple strategy to handle them.

Chapter 4 describes the management of the identified risk factors as a daily routine.

Chapter 5 is a collection of those concrete risk factors which we have to face at the moment of finalization of this document.

2. IDENTIFICATION OF RISK FACTORS

2.1 Risks, risk factors coming from the project implementation and from the operation of the project as a system

2.1.1 Project management (PM)

Operation, management of Project Management Team

Summary of objectives and tasks:

- collecting the relevant data and information needed to the project report; sending the project report to the Central Management Unit of the AAL in due time;
- organization of consortium meeting;
- preparation and approval of minutes of the consortium meetings and monitor the implementation of decisions taken at the meetings;
- assure appropriate follow-up of the Project Management's Team (PMT's) decision;
- define and communicate a timeline for preparation of reports;
- monitor compliance by the project partners with their obligations.

Identified risks, risk factors of task, objective

Field	Inner risk factor	External risk factor
Professional	Lack of sanctions in case of non-performance	Too much changes in criteria of the project reports; different criteria of the project report in the consortium member's countries
	Lack of sanction in case of delay	Often changes of the project officers in the intermediary authorities
	Changes in key persons of project management team or in the decision making persons	Long absence of the project officer
	Long absence of the decision makers and/or of the person who has authority to sign the relevant documents	Different and too slow decision making process by the intermediary authorities
	Different decision making process by the consortium members which can lead to too long decision making	Time to contract (signature of grant agreements) requires too much time and is different in the consortium member's countries
	Communication problem between the consortium members	Lack of handling the risk in the research project by the intermediary authorities

Financial		Different regulation in the consortium member's countries
		Different terms and condition, different deadlines and different requirements for the financial reports in the consortium member's countries
		Too much changes in the requirements for the financial report by the intermediary authorities
		Changes in status and tasks of the intermediary authorities
		Time to payment is different in the consortium member's countries and can require too much time

Communication between the consortium members and/or with the intermediary authorities

Summary of objectives and tasks:

- transmit documents, requirements and information connecting with the ElderHop project to the project partners;
- transmit the requirements of the CMU on the modification, submission of the project reports
- submission of the financial and project progress report to the national intermediary authorities;
- daily communication and networking with project members to keep all participants up-to-date about the progress of the project;
- manage an online project management platform for file sharing and editing and maintaining logs of the progress

Identified risks, risk factors of task, objective

Field	Inner risk factor	External risk factor
Professional	Communication between the PM organization/project partners and Intermediate Authorities based on not the relevant documentation	Delay in professional project implementation based on the late reply from Intermediate Authorities
	Communication between the PM organization/project partners and Intermediate Authorities are blocked because of personal issues (changes of responsible persons etc.)	Often changes of contact persons within Intermediate Authorities
	Delay in transmission of the CMU's request by the coordinator to the consortium members and vica versa	Reorganization or elimination of Intermediate Authorities
	The files will be edited late on the online project management platform	Problems of communication channels and/or administration interfaces at Intermediate Authorities
		Lack of knowledge on the international project management and AAL program

Dissemination and publication of project results

Summary of objectives and tasks:

- press release;
- publishing conference paper and scientific articles;
- creation of interactive website;
- development of dissemination materials (leaflets, brochures etc.);
- participation at conferences and workshops.

Identified risks, risk factors of task, objective

Field	Inner risk factor	External risk factor
Professional	Approval of press release requires too much times	Different prescription by the intermediary authorities in the communication requirements
	Too long conciliation process on scientific article and/ or conference paper since it can include Confidential Information and/or can be contrary to the commercial interests of the Party	
Financial		Different financial rules related to the dissemination task in the consortium member's country

Communication with the subcontractor

Summary of objectives and tasks:

- preparation of contracting issues;
- quality assurance – management, monitoring and control of performance quality based on the official contracts;
- reaction and clear answers to questions based on performance, implementation of tasks defined in subcontracts, preparation of decision making;
- suitable information flow and communication between consortium members and subcontractors (if it is necessary or requested).

Identified risks, risk factors of task, objective

Field	Inner risk factors	External risk factors
Professional	Determination of the subcontractor's task was inaccurate	Delay in completion of the task by the subcontractor or non-performance or default performance by the subcontractor can cause delay in the project
	According to the project progress it is needed to modify the task of subcontractor and therefore maybe additional cost will be incurred	Modification of grant agreement due to e.g extra task of subcontractor, requires too much time
		Subcontractor's operation in the market becomes impossible
Financial	Delay in receiving the grant amount can cause problems and difficulties in payment of subcontractors' invoices	Financial insolvency of the subcontractor

Administration and reporting

Summary of objectives, tasks:

- Definition and creation of templates, sample documentation which can support and prove performances
- Documentation on project implementation
- Preparation of financial and project reports to the national authorities
- preparation project reports to the AAL CMU
- preparation of biannual reports about the progress of the project

Identified risks, risk factors of task, objective

Field	Inner risk factor	External risk factor
Professional	Consortium partners have not enough time to prepare the relevant documents	Different deadline and different requirements for the project reports in the consortium member's countries
	Delay in transfer of the information by consortium members requested by the coordinator	The templates for the project report to the AAL CMU and to the national authorities are very different
	Communication between the PM organization/project partners based on not relevant documentation	Delay in submission of the project report due to the late reply from Intermediate Authorities
		Often changes of rules and requirements of the project report's submission
		Complexity of rules and administrative requirements
		Low risk, low trust attitude lead to administrative burden and can hinder the implementation of the project

		Differences in project indicators set out by the national authorities
Financial	Mistakes in the accounting due to the complexity of financial rules	Often changes of rules of the project report's submission
	Lack of human resources for the preparation of the financial report	Difference between the financial rules of the consortium member's countries
		Delay in payment by the national authorities
		Different interpretation of the rules by the project officer

Management of financial processes

Summary of objectives, tasks

- assurance of Cash Flow;
- assurance of financial performance during the project implementation phase, optimisation of financial issues regarding ElderHop project implementation;
- planning of payments regarding project implementation;
- preparation and submission of financial reports according to the project implementation schedule.

Identified risks, risk factors of task, objective

Field	Inner risk factors	External risk factors
Professional	Lack of liquidity (based on inner calculation or on administration mistake)	Suspension of grant amount's payment by national authorities
	Problems in financial issues connected to reporting activity	Unexpected changes in grant amount's transfer schedule
	Delay in grant amount drawdown based on mistake in calculation or administration	Increase of planned costs based on changes in national tax regulations
	Increase of prices of services or goods achieved within ElderHop project based on administrative failure or delay in orders	Changes in currency exchange rates
Financial	Incomplete preparation of decision regarding the increase of cost related to project implementation	Financial instability of subcontractors
	Incorrect planning of cash flow and needs	
	Delay in payment of purchases based on incomplete administrative documentation	
	Formal or professional mistake occurring in financial project reports	
	Problems of separate accounting system	
	Durable financial insolvency of a project partner	

Ethical issues

Summary of objectives, tasks:

- collection, analysis and share of personal data;
- definition of users' rights;
- safe storage of saved users' data;
- development of sufficient safety applications.

Identified risks, risk factors of task, objectives

Field	Inner risk factors	External risk factors
Professional	Differences in principles on Human data collection at the project partners	Resistance of target group regarding data collection
	Not appropriate adaptation of the regulation by any partners	New (prohibitive) regulation on observation of people's location
	Data of people involved in the project can be identified	Changes in the European regulations on protection of personal data
Financial	Saving and management of collected Human data require special equipment	Differences in the national legislations on Human data collection at project partners

2.1.2 Technology innovation

Summary of objectives, tasks:

- development of a platform based on combination of a future open source mobile platform and an IP connected TV platform;
- development of the components needed to the final product;
- integration and validation of software and hardware components of the prototype;
- evaluation of the developed technology.

Identified risks, risk factors of task, objectives

Field	Inner risk factors	External risk factors
Professional	Project plan does not calculate with the new achievements introduced into the market during the project development phase	Totally new innovations entering the market during the implementation phase
	No clear identification of real user needs	Changes of elderlies' habits
	Technology assumptions defined in the project proposal are not close to the real end-users expectations	New requirements on the developed solution coming from the market

	Choice of the not suitable technology direction (which will not be competitive enough on the market in the future)	
Financial	Cash flow problem due to the increasing development's cost	Increasing prices of the technologies on the market
		Increasing development's costs due to the new technologies on the market

2.1.3 Business model development, creation

Summary of objectives, tasks:

- market segmentation;
- creation of SWOT analysis regarding ElderHop project and the final solution;
- composing an exploitation plan;
- definition of ElderHop project partners' participation in the commercialization of final ElderHop solution;
- creation of an operable business structure for commercialization of final ElderHop solution;
- plan for managing obligatory tasks during the maintenance period of ElderHop project;
- management of future IPR and income issues.

Identified risks, risk factors of task, objectives

Field	Inner risk factors	External risk factors
Professional	Unclear segmentation of the potential users	Often changes of the potential stakeholders
	Not appropriate forecast of the market dynamics and trends	Changes of the potential customer's habits
	Exploitation plan does not fit to the market's claim	Suitable commercialization partner not found
Financial	Discussion on the exploitation and IPR issues of the developed solution between project partner	Increasing costs due to the changes of the habits of the end- user

2.1.4 Publication, PR, dissemination

Creation of a communication plan

Summary of objectives, tasks

- definition of communication tools and communication schedule;
- identification of target groups, assignment the sufficient, relevant methodology and communication tools to them;
- definition of requirements on communication materials.

Identified risks, risk factors of task, objective

Field	Inner risk factors	External risk factors
Financial	Requirements on communication activity defined by national and international Intermediate Authorities which does not fit into the project budget	Changes in obligatory image used in communication materials which can implement with extra costs (not planned in the budget)
	Underestimated communication budget	Delay in implementation of communication activities based on subcontractors performance
	New (not planned) elements of communication budget based on managing important changes or problems in project implementation	
Professional	Requirements on communication activity is not defined enough	Requirements on communication activity is not defined enough
	Elimination of probable target groups' reactions in creation of communication plan	Communication problems with the representatives of target groups
	Insufficient definition of communication life cycles	
	Underestimation of the size of target group	

Implementation of communication plan, monitoring and control of the activity

Summary of objectives, tasks:

- management of internal and external communication activities according to the schedule and quality requirements;
- use of design and image elements defined by national and international AAL Intermediate Authorities;
- coordination for implementation based on the given cost frames and schedule.

Identified risks, risk factors of task, objective

Field	Inner risk factors	External risk factors
Financial	Overcosts of communication materials and services purchase based on the insufficient definition of requirements	Delay in communication, dissemination activity (services or creation of materials) based on subcontractor's failure
	Calculation on communication budget differs from the market prices	
Professional	Insufficiency in target groups' involvement	Inactivity of target groups
	Communication activities implemented not as scheduled	Delay in communication activity (services or creation of materials) based on subcontractor's failure
	Problems in decision making regarding communication issues	
	Problems in managing changes during the project implementation's period	

2.2 Risks, risk factors coming from the project implementation's environment

Social-political environment	Political risk factors	Not controllable by PMT / project manager	Controllable by PMT / project manager
		AAL priorities lose their importance on EU level	
		AAL priorities lose their importance on national level at a project partner	
	Social risk factors	Changes in social habits of target groups	Changes of preferences of end-users
Social problems of elderlies will be emphasized by a totally different focus			
Legal-economic environment	Legal-financial risk factors	New regulation on management of private data	Late adaptation of legal changes
		New taxes introduced in several countries	Bad calculation on exchange rates
		Changes in exchange rates	

Natural environment	Economic risk factors	New type of advertisements on the market	Too much targeted advertisement can be disturbing
			Too much targeted advertisement can destroy trust
			Lack of information regarding the prices of the developed product
	Natural risk factors	Natural disaster	
	Risk factors of life quality	Changes in the pension system	
		Changes in life quality of elderly	

3. EVALUATION OF RISK FACTORS

Evaluation of the different risk factors is based on the dimensions of chance of occurrence, estimated (and not expected) cost effect of the factor and time factor of them.

Definition of priority categories of risk factors:

Value of damage	Definition of the parameter
„1”	„low” Definition of the factor based on cost effect: damages over the value 1,000 EUR Definition based on time aspect: risk factors effecting no significant delays or deviances in the project implementation process Definition based on probability: risk factors effecting the project implementation process not in merit
„2”	„moderate” Definition of the factor based on cost effect: damages over the value 5,000 EUR Definition based on time aspect: risk factors with direct effect on the project implementation schedule, but which do not cause the obstruction of project implementation Definition based on probability: slight, controllable risk factors
„3”	„medium” Definition of the factor based on cost effect: damages over the value 10,000 EUR Definition based on time aspect: risk factors with direct effect on the project implementation schedule, causing short, temporary obstruction in project implementation process Definition based on probability: high, but controllable risk factors
„4”	„high” Definition of the factor based on cost effect: damages over the value 20,000 EUR Definition based on time aspect: risk factors with direct effect on the project implementation schedule, causing obstruction in project implementation process Definition based on probability: high risk factors which endanger the implementation of ElderHop project
„5”	„very high” Unacceptable risk factors which cannot be controlled and which drive to the collapse of ElderHop project

Field	Working processes of project management
Description	Implementation of ElderHop project development tasks requires the cooperation and collaboration of several experts and developers with different knowledge, background, experience and culture. Definition of obligations, responsibilities, functions and authorities is the basic criteria for successful project implementation and for effective risk management activity. Lack of this clear definition can induce troubles in working and management processes as well.
PROBABILITY (%)	“high” – representation of so many participants within ElderHop consortium requires organized management structure
COST EFFECT (%)	“medium” – ElderHop project partners are responsible for the implementation of the proposed project primary to their national AAL funding agency (based on the Grant Agreement), delays at one partner might not result in financial difficulties of an other project partner.
TIME EFFECT (%)	“high” – troubles on uncoordinated WPs and development process can cause significant delays in the implementation of the whole project
REDUCTION OF CHANCE OF OCCURANCE	establishment of PMT; creation of work flow processes, their use and monitoring;
REDUCTION OF EFFECTS	working with project staff with relevant professional knowledge and background

Field	Coordination and internal communication
Description	Quick, interactive and controlled ways of communication and documentation sharing must be created. Misunderstanding in internal communication and lack of information can affect the false implementation of original project objectives. Effective internal communication serves as basis for right communication to AAL CMU and national funding agencies and for the collection of real data.
PROBABILITY (%)	“high” – cooperation of 7 consortium members requires quick, reliable and effective communication ways and communication methods
COST EFFECT (%)	“medium” – mistakes and troubles in internal communication can delay the project implementation or drive to minor changes in project results and achievements, but the original (accepted) ElderHop project proposal is available at each project partners, so project partners must know their tasks and obligations
TIME EFFECT (%)	“medium” – lack of information, uncertainty and troubles in communication can affect the delayed project implementation
REDUCTION OF CHANCE OF OCCURANCE	definition of communication channels and their regulated use; regular project management meetings or conference calls; monitoring of project implementation process;

	use of more communication channels;
<i>REDUCTION OF EFFECTS</i>	Evolving cooperative approach within ElderHop consortium (project partners) Creation of project implementation schedule with time reserves

Field	Project administration
Description	Up-to-date knowledge of project implementation and administration regulation is a must at an international AAL project. Project coordinator helps project partners in questions regarding the international reports (financial and professional reports) presented to AAL CMU. In national funding issues project partners must know their national conditions, opportunities and obligations. Administration of the own financial and professional activities is the tasks for each partner separately. Lack of organizational/institutional administration might endanger the implementation of the whole project (for example false data given to the Annual Progress and Financial Report or any other document required by AAL CMU). Clear administration system is the basis for supplying real data on implementation and development processes.
PROBABILITY (%)	“medium” – project implementation and related administration requires the parallel knowledge on legal regulations and procedures
COST EFFECT (%)	“medium” – risk factor can effect primary in time aspect, that means delays in transferring the grant amount etc.
TIME EFFECT (%)	“medium” – delays in submission of requested documentation can endanger the future development activities and the review of the project
<i>REDUCTION OF CHANCE OF OCCURANCE</i>	Project management and administration systems should be based on templates and schedules
<i>REDUCTION OF EFFECTS</i>	Immediate communication of changes in administrative issues and deadlines given by AAL CMU Sending written reminders on changes and deadlines Control of project documentation of partners before submission

Field	Monitoring and control of project implementation
Description	The quality of project implementation and the development processes is critical aspect at AAL CMU and at national AAL funding agencies. The complex monitoring of the whole ElderHop project implementation process is required to the success of the project. Creation of accordance between financial and professional plans and the real implementation process is a task dedicated to the project management organization. Significant changes to the original plan can endanger the fulfilment of ElderHop project's objectives.
PROBABILITY (%)	“low” – several control and evaluation points are built in the AAL system
COST EFFECT (%)	“medium” – at control points the consortium can change development and activity direction and return to the original

	plans and objectives
TIME EFFECT (%)	“low” – this task is the basic part of project management activity, which is controlled by different (national and international) authorities
REDUCTION OF CHANCE OF OCCURRENCE	Good, reliable and transparent documentation system Definition of obligations and tasks within the Consortium Agreement Working with high quality external partners (as subcontractors) Creation of quality management plan
REDUCTION OF EFFECTS	Definition of alternatives for the case of non-performance or bad performance Use of external experts or consultants if required

Field	Financial management of ElderHop project
Description	Delays in transferring the grant amount or liquidity problems at project partners have an effect to the whole project implementation process (it is strictly connected to the professional parts of development, too) can drive to the failure of the project (worst case scenario). Avoid of further delays might be connected with increase of costs (based on shorter time frames for given activities), especially in the case of subcontractors. Delays in transferring the grant amount can based on two situations: (1) mistakes at submission of the requested reports (2) financial difficulties of the state which can set back the transfer of entitled grant amount
PROBABILITY (%)	“high” – based on former experiences and the analysis of international situations, relations
COST EFFECT (%)	“medium” – project participants might use other sources (reserves, revenue etc.) for solving the temporary liquidation problems
TIME EFFECT (%)	“high” – delays at one or two project partners can slow down the whole project implementation process, in this case significant extension of project duration is requested
REDUCTION OF CHANCE OF OCCURRENCE	Schedule on submission of financial reports and request for transferring grant amount – several times if it is possible according to the Grant Agreement Creation of reserves at the beginning of project implementation phase
REDUCTION OF EFFECTS	Definition of milestones within the project plan – payment is based on milestones

Field	Special risk factor at project partners
Description	In an international project like ElderHop consortium with the participation of 7 project partners from 4 countries can generate significant, not planable risk factors. A wide range of risk factors can occur based on national difficulties, differences in work culture, communication misunderstandings, problems with exchange rates, changes in project staff at ElderHop partners etc. This category can include minor changes (which

	are defined as minor risk factors) as well as significant risk factors with the opportunity of destroy of the whole project implementation. This kind of risk factors includes all the possible professional problems related to the effective, successful project implementation at project partners.
PROBABILITY (%)	“medium” – only an average level of probability can be given based on the wide range of possible effect, situations and opportunities
COST EFFECT (%)	“high” – significant changes at project partners can affect really high cost effects at other project partners (for instance a partner has to take over the tasks of an existing project partner etc.)
TIME EFFECT (%)	“high” – if a major problem occurring at an important project partner, this situation can be resulted at least in delay of project implementation or endanger the whole project implementation (worst case scenario)
REDUCTION OF CHANCE OF OCCURANCE	Regular, (pro)active internal communication Assistance of PMT Good relationship with national AAL NCPs
REDUCTION OF EFFECTS	Regular forum for PMT to discuss all the difficulties occurring during the project implementation phase Collaboration with reliable, experienced project partners and subcontractors Proactive behaviour of PMT in the case if some risk factors might occur (in the phase when the risk factors only might be realized)

Field	Dissemination, impact assessment and awareness raising
Description	During the project development phase a complex, international dissemination activity must be realized. Dissemination activities must base on the Dissemination Guidelines for AAL projects, but they have to suit the preferences of potential target group as well. Real effects of disseminations activities are quite hard to summarize while we do not know which part of our dissemination activity resulted in consumer behaviour.
PROBABILITY (%)	“medium” – the importance of these activities will increase in the second period of project implementation, while at the end of ElderHop projects even more focus must be given to the action related to dissemination, impact assessment and awareness raising
COST EFFECT (%)	“medium” – ineffective dissemination, impact assessment and awareness raising activities can endanger the acceptance of ElderHop portal at elderlies, which is the base of future business success
TIME EFFECT (%)	“low” - changes or delays in dissemination activities can endanger the further business success of the final ElderHop portal but not the project development and implementation
REDUCTION OF CHANCE OF OCCURANCE	As soon as a prototype with full functions is to be shown, proactive dissemination plan will be developed

	Determination of information which can be published
<i>REDUCTION OF EFFECTS</i>	<p>Clear defined rights, opportunities and obligations</p> <p>Definition of dissemination principles accepted by all project partners</p> <p>Feedback to the proposed publications</p>

4. MANAGEMENT OF RISK, RISK FACTORS

Implementation of ElderHop project is based on general defined process elements and parameters, but is characterized by several unique and special parts/issues, which are connected only with the given project and its elements and which can endanger the implementation of the project or its results. Upon this, the former or pre-identification and analysis of potential problems and risk factors could be really difficult; PMT has to face with quite big challenges regarding these issues. Based on these specialities, the definition of risk management tools and management alternatives available during the project implementation phase, as well as risk management monitoring activity depends on several internal and external factors.

Successful implementation of ElderHop project with the expected results and achievements is the main interest of project partners and other stakeholders, as well the identification of risk factors affecting the project development process, and their effective management. On-going and a wide range of risk management activity is the task of project management activity (WP1), both the project manager and the PMT are responsible for the fulfilment of this obligation. Risk management activity must be the common part of the whole project management activity; it must be implanted as a daily routine under the other tasks (management of professional or financial issues) related to WP1.

Implementation process of risk management:

1. The project manager and the PMT identify all of the potential risk factors which can endanger the further project implementation. If there is a lack of some special knowledge, consultation with external (professional) experts is suggested. Identification of risk factors includes the revision of risk factors identified during the project planning and preparation phases and the categorization and recategorization of risk factors according to the real project implementation environment.
2. After the categorization of risk factors their probability and effects will be defined.
3. Development of reaction strategy in the cases of risk factors categorized as factors with high probability or with significant effects which defines the activity for reducing the realization chance of the factor, as well as the person responsible for the implementation of reaction activity and its deadline.
4. Identification of alternatives for creation of reserves in project schedule and project budget, rescheduling the project (if necessary). With the use of these alternatives unexpected effects (risk factors) can be managed
5. Administration of the whole risk management processes in the register of risk factors

As part of the project management activity the process of risk management must be implemented regularly (at least monthly) based on the feedbacks coming from the ElderHop project implementation process.

5. ACTUAL RISK FACTORS

Risk factor	Integration problems
Description of risk factor	As several parts of the development happen at different project partners, some problems regarding the integration of the different elements can occur in the second period of project implementation
To-do list	<ul style="list-style-type: none"> • Identification of problems • Organizing conference calls to the relevant project partners • Organise project meeting in January-February and dedicate 1/2 day to an integration workshop, where integration interfaces will be trialled among involved developers; problems will be detected and hands-on tests will take place. • Coordination with the partners organizing field trial tasks regarding the effects of integration problems • Creation of solution alternatives which <ol style="list-style-type: none"> (1) could be suitable for all of the participants (2) does not endanger the project implementation (3) does not cause delay in project implementation
Responsible partner:	MMO
Partners involved:	KIBU, HomeSys, CREATE, IntegrasyS
Deadline:	28 February, 2013

Risk factor	Delay in field trials based on delay in development
Description of risk factor	As several partners are responsible for the implementation of the final solution (or its components), delays in development at one party can cause delays in the whole project implementation. Important field trials must start in January, 2013. The original schedule for implementation of these field trials is short; any delays can endanger the whole project implementation (its success).
To-do list	<ul style="list-style-type: none"> • On-going communication with the project partners • Identification of possible development problems as soon as possible • If a project partner has problems regarding development issues, he must report this fact to MMO immediately • Coordination with the partners organizing field trial tasks regarding the effects of development problems • Creation of solution alternatives which <ol style="list-style-type: none"> (1) could be suitable for all of the participants (2) does not endanger the project implementation (3) does not cause delay in project implementation.

	<ul style="list-style-type: none"> Put in place a fall-back deployment plan, which excludes any unavailable or miss operating functionality.
Responsible partner:	MMO
Partners involved:	COOSS, KIBU, Integrasys, HomeSys, CREATE
Deadline:	15 January, 2013

Risk factor	Market introduction of the final ElderHop solution
Description of risk factor	As the final ElderHop solution based on totally new technologies (Windows 8, WindowsPhone8, FUSO), the market introduction of these systems can effect to the business success of our final solution
To-do list	<ul style="list-style-type: none"> Identification of problems Checking of available news on market introduction of Windows 8 and devices based on this OS Organise project meeting in January-February and dedicate 1/2 day to an integration workshop, where problems can be detected Special attention for these issues at the creation of potential business models Creation of solution alternatives which <ol style="list-style-type: none"> (1) could be suitable for all of the participants (2) does not endanger the project implementation (3) does not cause delay in project implementation
Responsible partner:	MMO
Partners involved:	KIBU, HomeSys, CREATE, Integrasys, COOSS, CURE
Deadline:	28 February, 2013