



Civilization Risk Assessment & Management – Project Statement of Work

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Civilization Risk Assessment & Management - Project Statement of Work

a program proposed by the Space Renaissance International

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Partner entities:

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1 Generalities

1.1 Scope of this document

Scope of this document is to provide preliminary requirements and draft Work Breakdown Structure (WBS) description for the Civilization Risk Assessment & Management (CRAM) project.

Initiation of the CRAM project was decided by the Space Renaissance International first Congress, held in 2011. The project was approved by the congress, and confirmed by the 2012 July Meeting of the SRI Executive.

1.2 Structure of this document

The document is structured in five sections:

- 1) **Generalities** – this section, includes general information related to scope, structure, revisions list and use of the document.
- 2) **Background** - provides main rationale of the project, goals, stakeholders and an initial list of risks (postulate) to be assessed and demonstrated.
- 3) **Project scope** – defines the scope statement of the project and sought partner entities.
- 4) **Preliminary Requirements** – provides strategical requirements, implementation guidelines, quantity and quality fo deliverables, funding and schedule.
- 5) **Work Breakdown Structure (WBS) description** – provides the WBS and preliminary description of deliverables. This will be updated to be detailed with timing and responsibilities, in a more advanced stage of the project.

1.3 Use of the document

The document is intended to serve as the first tool to be shared among participants and potential participants, with the goal to organize the works, define and manage responsibilities, define and manage the plan for realization of the project.

1.4 List of revisions

Release	Date	Cause of release
Preliminary 1.0	15.09.2012	First issue of the document
Preliminary 2.0	18.09.2012	After comments by Ken Ford: - restruct: background, project scope - introduction of the preliminary requirements section
Preliminary 2.1	23.09.2012	Added Preliminary Requirements section (4.1 - 4.4), except Methodology (4.5), by A. V. Autino



2 Background

2.1 Items of a social analysis

- 2.1.1 We are seven billion humans on one only planet; it is likely we already passed the threshold of sustainability of our mother planet.
- 2.1.2 If we keep growing within a closed system, civilization will implode (as Stephen Hawking so clearly pointed out).
- 2.1.3 The break-event is expected to occur somewhere in the first half of this century.
- 2.1.4 The main problem is not technological: suitable technologies exist, or would exist soon, should the right decisions be made.
- 2.1.5 One of the main problems is political: what is missing is the public awareness of the risk, and political decisions to move ahead on a mitigation road-map.
- 2.1.6 Another main problem is economic, since the global economic crisis will reduce the work capacity, the general scientific and technological know-how, and accelerate the process of social implosion.
- 2.1.7 People intuitively know that a big risk is looming, but they don't have a realistic vision. Many opinions exist as to the attribution of risk: different religions, immigration, moral decay, pollution, waste of energy, etc... Each one of such false metaphysics will raise new conflicts and worsen old conflicts, accelerating the process of social implosion.
- 2.1.8 The development of a space economy is a mitigation plan that will oppose and reverse the above social processes and create millions of jobs in the process, in turn, restoring hope in the future, and stimulating the young minds in a positive direction.
- 2.1.9 Innovative technical proposals can help, of course, but the world is not waiting for some "new technologies" to take the first step on the road. Evidence of space technologies in the process of validation will be enough.
- 2.1.10 To win the game, the new risk-reversing industries (such as new space-related industry) needs popular support. Governmental support in the forms of grants, tax discounts, incentives to the new space industry would accelerate the process and adoption.
- 2.1.11 In order for the above processes to take place, public awareness of the risks and of the urgent tasks to be undertaken should be raised quickly and systematically.



2.2 Stakeholders

2.2.1 Civilization

The main stakeholder of this project is the whole human community, in terms of the cultural ensemble of people and community, in few words the civilization.

2.2.2 Earth's living species

Since the civilization risk is tied to all of the species living on planet Earth, the stakeholders ensemble includes all of the species living on planet Earth as well.

2.2.3 Life in the Solar System

From an evolutionary point of view, being the human species the maximum expression of intelligent life on Earth and possibly in the Solar System, since life in the Solar System can be spreaded and developed only by an intelligent technological species, the continuation of the civilization is essential to the development of any form of life in the Solar System and beyond.

2.2.4 Education institutions and organizations oriented to young generations

Moving our attention from evolution to society, the young generations hold the major interest in civilization risk mitigation. Therefore all of the institutions dealing with education, students associations, social organizations dedicated to youngs, cultural entities, artistic entities, charity organizations are included within stakeholders as well.

2.2.5 Humanitarian organizations

Humanitarian international and local associations, such as UNO, UNICEF, AMNESTY INTERNATIONAL and similar organizations, having the help to the Earthling people, enhancement of human rights, safeguard of freedom and democracy in their scope of existence, are part of the stakeholders as well.

2.2.6 Trade unions and social organizations

All of the trade unions, devoted to the defence of the interests of workers and/or entrepreneurs.

2.2.7 Governments

All of the Earthling governments, devoted to the defence and enhancement of the citizens living conditions.

2.2.8 Artists

All of the artists, sensitive to the human living conditions and, all people endowed with a sharp and visionaire perception of social changes.

2.2.9 Enterprises

All of the enterprises, interested to a growing economy and growing markets.



2.2.10 Space Renaissance International

Thanks to this project, SRI will expand its influence, spread its verb in the society, and achive precious high prestige partnerships, thus increasing possibility to complete its mission.

2.3 Basic definition of civilization risk

The meaning of ‘civilization risk’:

2.3.1 a global risk, threatening the existence of civilization as we know it (not necessarily the extinction of human species)

2.3.2 a global risk, that can cause the total extinction of human species

2.4 Non-exhaustive Table of Civilization Risks for Analysis and Mitigation

#	Event / process	Risk
2.4.1	progressive dwindling of earthly energy and raw materials sources; the prospect of wars erupting over scarce resources, escalating, perhaps, to nuclear exchanges	global economic decay, leading to a global crash of the civilization ruin of all industrial activities, leading to implosion of civilization
2.4.2	asteroid or comet impacting the planet	extinction event
2.4.3	natural disasters: tsunamis, hurricanes, earthquakes, floods, drought, extreme climate change	progressive decay of industry and communications, leading to implosion of civilization
2.4.4	environmental decay, either natural or anthropogenic	progressive decay of industry and communications, leading to implosion of civilization
2.4.5	biological warfare, whether caused by a terrorist strike, a “rogue nation”, or a simple accident	progressive decay of industry and communications, leading to implosion of civilization
2.4.6	evolution of “Superbugs”	progressive decay of industry and communications, leading to implosion of civilization
2.4.7	cultural decay, resulting in a second “Dark Ages” characterized by superstition, criminalization of science and technology	progressive decay, leading to implosion of civilization



3 Project Scope

3.1 Scope Statement and Goals of the CRAM Project

The mission of SRI is to transcend the space community, making accessible to the general public the extreme risks civilization is facing.

The goals of the CRAM Project are at least the following ones:

3.1.1 Identify actual or credible risks with a probability of occurring within the next 50 years.

3.1.2 Provide scientific proofs of the probability of the main risks related to our civilization continuation

3.1.3 Provide an awareness of:

3.1.3.1 one or more mitigation plans being necessary and require the urgent attention of political leaders

3.1.3.2 the need for implementing global projects, targeted to assure the continuation of the civilization and enhance industrial and cultural development

3.1.3.3 the relationship between global crises and the growth of humanity on its native planet and peoples' empowerment to resist societal decay through cooperative work toward sustainable solutions.

3.1.4 Solicit the involvement of universities and research communities

3.1.5 Administer a social questionnaire, positing the key questions, about the future of our civilization

3.1.6 Reach interdisciplinary communities, stakeholders of the mitigation plan, which could be directly involved in the realization of the plan itself.



3.2 Possible partner entities

The project will seek partnerships with universities and research centers, including those with the following expertise:

- 3.2.1 Technical and scientific faculties
- 3.2.2 Sociological and social sciences
- 3.2.3 Philosophy
- 3.2.4 Communication sciences
- 3.2.5 Computer sciences
- 3.2.6 Psychology
- 3.2.7 Political sciences
- 3.2.8 Environmental sciences
- 3.2.9 Architecture and urbanistics

4 Preliminary Requirements

4.1 Strategic Requirements

The strategic requirements of the CRAM project are defined in relationship to the identified stakeholders of the project itself.

4.1.1 Strategic requirements of the Space Renaissance International

- 4.1.1.1 The CRAM project shall allow SRI to develop its statutory mission, and pursue the main goals listed in the Space Renaissance Manifesto.
- 4.1.1.2 The CRAM project shall allow SRI to raise general public awareness of the urgency to expand human civilization beyond the limits of planet Earth.
- 4.1.1.3 The CRAM project shall allow SRI to inspire young generations with big global projects, such as a civilization risk mitigation plan.
- 4.1.1.4 The CRAM project shall allow SRI to achieve important partnerships in the academic world world-wide.
- 4.1.1.5 The CRAM project shall allow SRI to approach donors, celebrities and testimonials.
- 4.1.1.6 The CRAM project shall allow SRI to consolidate its role and presence as a space advocacy international association.
- 4.1.1.7 Through the CRAM project, SRI will consolidate its structure and organizational means.
- 4.1.1.8 Through the CRAM project, SRI will increase its own funding opportunities.



4.1.2 Strategic requirements of the Civilization

- 4.1.2.1 The global risks to be assessed are the risks directly threatening the continuation of civilization, from a humanist point of view.
- 4.1.2.2 The assessment shall be based on rigorous scientific data and observation.
- 4.1.2.3 The interest of all and each one of the civilization components, i.e. seven billion human beings and counting, shall be primary.
- 4.1.2.4 The proposed risk mitigation countermeasures shall be compliant with the above interest, e.g. countermeasures implying a reduction of humans in number and/or in culture, in any form, shall be excluded.
- 4.1.2.5 The proposed risk mitigation countermeasures shall be respectful of human life, freedom, democracy, peace and human rights as defined by the UN chart.
- 4.1.2.6 By means of a scientific assessment of the civilization risk(s) and of a risk mitigation plan, both results of the CRAM project, civilization will raise its opportunity to oppose to the global threats and thus to continue its own development.
- 4.1.2.7 Identifying global risk(s) and possible countermeasures is the first step to restore the hope in the future: the CRAM project will bring fresh air in the decaying closed world culture, and revive energies all around the world.
- 4.1.2.8 The development of a global risk mitigation plan will require to move huge investments and resources, and will generate many jobs: the CRAM project itself will be a strong counter-crisis factor.
- 4.1.2.9 The development of a global risk mitigation plan will decrease the reasons of conflict, such as scarcity of resources and energy sources, giving a great contribute to peace.

4.1.3 Strategic requirements of the Earth's living species and life evolution

- 4.1.3.1 Many global civilization risks affect not only the human species, but all of the species living on this planet: the CRAM project, and the resulting risk mitigation plan, will contribute to the survival and further development of all of the Earth's living species.
- 4.1.3.2 Since life in the Solar System can be spreaded and developed only by an intelligent technological species, the continuation of the civilization is essential: the CRAM project will contribute to the evolution of life in the Solar System and beyond.

4.1.4 Strategic requirements of education institutions and organizations oriented to young generations

- 4.1.4.1 All of the institutions dealing with education, students associations, social organizations dedicated to youngs, cultural entities, artistic entities, charity organizations are suffering a season of decay, due to the global crisis, the obsolete industrial development and the standstill of the birth of new industrial development lines. The CRAM project development shall revitalize the universities, by proposing a quite interesting theme, suitable to raise reseraches and to motivate both professors and students.
- 4.1.4.2 The children projects of the CRAM project, that will born for the implementation of the mitigation plan, shall deeply affect the education and youth oriented institutions and



associations, bringing a wind of innovation in the education program, inspiration and passion to educators.

4.1.5 Strategic requirements of humanitarian organizations

- 4.1.5.1 Humanitarian international and local associations, such as UNO, UNICEF, AMNESTY INTERNATIONAL and similar organizations, in case of civilization risk events will see frustrated and canceled all of their efforts: the CRAM project will give them a great opportunity to fulfill their mission.
- 4.1.5.2 The children projects of the CRAM project, that will born for the implementation of the risk mitigation plan, generating jobs and new education programs, shall improve living conditions all around the world, helping humanitarian associations to implement their goals.

4.1.6 Strategic requirements of other social subjects

- 4.1.6.1 The mitigation plan implementation project, child of the CRAM project, will generate millions new jobs, contributing to the mission of all of the trade unions, devoted to the defence of the interests of workers and/or entrepreneurs.
- 4.1.6.2 The development of the CRAM project shall deeply involve all of the Earthling Governments, devoted to the defence and enhancement of the citizens living conditions.
- 4.1.6.3 The mitigation plan implementation project, child of the CRAM project, shall be conceived and developed in collaboration with Governments, in order to coordinate resources and efforts in a global international program.
- 4.1.6.4 Artists, sensitive to the human living conditions and, all people endowed with a sharp and visionary perception of social changes shall be involved both in the CRAM project realization and in the implementation of the mitigation plan project, child of the CRAM project.
- 4.1.6.5 The mitigation plan implementation project, child of the CRAM project, will give a great contribute to the interest of all the Earthly enterprises, relaunching a growing economy and growing markets.



4.2 Implementation Requirements

4.2.1 From the seed to the tree

The CRAM project shall be developed according to a road-map including several stages, driven by chained growing subjects, as sketched hereafter:

Stage #	Stage title	Subject(s)	Status
1	CRAM Seed Concept Capture (SCC)	- SRI Congress	Done
2	CRAM Seed Project Development (SPD): CRAM project Statement Of Work definition	- CRAM Project Management Team	10%
3	CRAM Project Costs Estimation (PCE)	- CRAM Project Management Team	0%
4	CRAM Project Funding (PF)	- CRAM Project Management Team - Partners (Universities, Research Centers) - Partners (Foundations, Donors, Testimonials)	0%
5	Creation of the CRAM Consortium	- CRAM Project Management Team - Partners (Universities, Research Centers)	0%
6	CRAM Project Development (PD)	- CRAM Consortium	0%

4.2.2 Parallel forecast

- 4.2.2.1 The CRAM project shall be developed according to a wide concurrent parallel research.
- 4.2.2.2 Each partner university, or group of universities, will conduct their proper research and simulation of future scenarios.
- 4.2.2.3 A scientific committee shall be created, by representatives of partners, with the goal to integrate all of the issued reports, and get a realistic forecast estimation of the civilization global risk.
- 4.2.2.4 Research sub-groups shall be freely created by university faculties having complementar skills, such as, i.e.: a sociology faculty, a computer science faculty, a science of communication faculty.
- 4.2.2.5 The creation of international and interdisciplinary working groups is highly recommended, since geographical and interdisciplinary cross-fertilization are essential to overcome local common places and misleading pre-conceptions.

4.2.3 Role of universities and research centers

- 4.2.3.1 Each involved entity shall be responsible for implementation of one or more work-packages, as defined in the project SOW.



- 4.2.3.2 Each involved entity shall design a person, encharged to interface the Consortium Management Team.
- 4.2.3.3 Each involved entity shall be fully autonomous and entitled to involve other entities, when deemed useful for the better achievement of the project goals.
- 4.2.3.4 Each involved entity shall report to the Consortium Management Team with the frequency that will be defined, about the progress of the works.

4.2.4 Role of the CRAM Project Management Team (PMT)

- 4.2.4.1 The CRAM Project Management Team, chaired by the Program Manager, is the directive organ of the project.
- 4.2.4.2 The CRAM Project Management Team is created upon initiative of the SRI Executive Committee, and is entitled to involve other partners, deemed essential to the direction of the project.
- 4.2.4.3 The CRAM Project Management Team shall exist until the end of the project, with different roles: during the seed project development it covers 100% the project management and development roles; after the creation of the consortium it shall keep a role of control and monitoring, administering the project funding and keeping the project on the defined philosophical root.
- 4.2.4.4 The designed Program Manager will cover such role also when the Consortium will be in place and working.
- 4.2.4.5 The members of the CRAM Project Management Team can -- but don't shall -- be part of the Scientific Committe as well. However they will always have the right to participate to any meeting and address the Scientific Committe and the Consortium Sub-Assemblies with questions related to the development of the works in progress and defined milestones.
- 4.2.4.6 The CRAM Project Management team has the duty to support the Program Manager in the monitoring of the works in progress, and to detect and promptly notice any discrepancy between the real development and the plan.
- 4.2.4.7 The CRAM Project Management team shall put in place proper recover actions, in case of discrepancy between the real development and the plan.

4.2.5 Role of the Scientific Committee (SC)

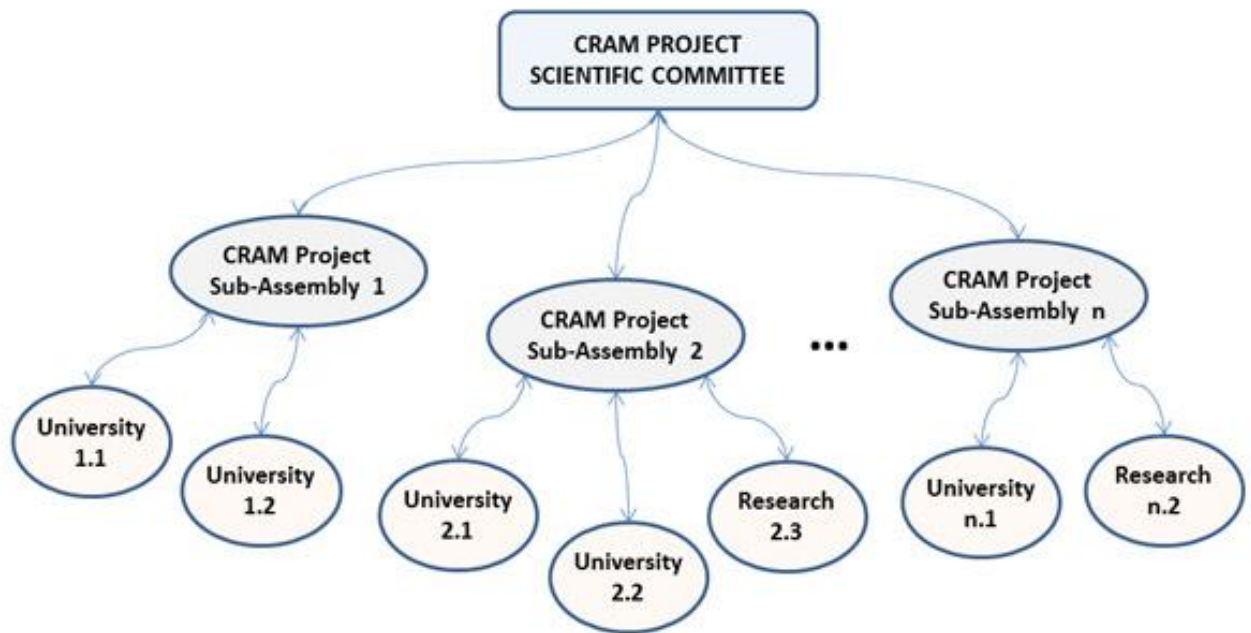
- 4.2.5.1 The Scientific Committee (SC) has the duty to assure the project not to deviate from the social and philosophical goals of the project.
- 4.2.5.2 The SC supports the Consortium by checking the scientific validity of the projects put in place by the Consortium Sub-Assemblies, and their coherence with the goals and requirements of the CRAM project.
- 4.2.5.3 The SC shall promptly detect any insufficiency of any working team, and actively contribute to involve and add the necessary skills, in order to complete the team.
- 4.2.5.4 The SC shall report with the defined frequency to the PMT about the detected issues and the advanced solutions, action items and deadlines.



4.2.5.5 The SC shall also promptly notice the PMT about any detected financial problem, which could arise in the Consortium and/or in the Sub-Assembly.

4.2.6 International consortium

The CRAM international consortium is articulated on three hierarchical levels, as sketched hereafter.



4.3 Description of Deliverables

4.3.1 Deliverables of the CRAM Seed Project

Item #	Title	WP
SP1	CRAM Project Detailed Statement of Work	TBD
SP2	CRAM Project Stakeholders Requirements Document (SRD)	TBD
SP3	CRAM Seed Project Plan (SPP)	TBD
SP3	CRAM Project Consortium Agreement Document draft (CAD)	1110
SP4	CRAM Project Master Project Plan (MPP)	1120
SP5	CRAM Project Project Financial Plan (PFP)	1130



4.3.2 Deliverables of the CRAM Project

Item #	Title	WP
PD1	CRAM Project Consortium Agreement Document shared and amended among participants (CAD)	TBD
PD2	CRAM Project Consortium Sub-Assemblies Civilization Risk Analysis documents (CRA)	1120
PD3	Developed or customized software simulator(s)	1220
PD4	Integrated Civilization Risk Analysis documents (CRA)	1220
PD5	Risk Mitigation Plan (RMP)	1310
PD6	Countermeasures Feasibility Document (CFD)	1320
PD7	Reviewed Risk Mitigation Plan (RMP)	1320
PD8	Risk Mitigation Plan Cost Estimation Document (RMPCE)	1330
PD9	Civilization Risk Questionnaire (CRQ)	1410
PD10	Civilization Risk Awareness Report (CRAR)	1420
PD11	Book: Civilization Risk Report (CRR)	1510

4.4 Funding and Schedule Requirements

4.4.1 Financing the Seed Project

- 4.4.1.1 The Seed Project (steps 1 - 4 of the “from seed to tree” general road-map at 4.2.1) will be developed by voluntary effort of the CRAM Project Management Team Members.
- 4.4.1.2 The working hours spent by the PMT Members will be totally voluntary effort, and will not be paid to the volunteers.
- 4.4.1.3 One of the main goals of the Seed Project will be to make an agreement with one or more foundations, in order to achieve meaningful funds, to sustain the development of the project.
- 4.4.1.4 Should expenses arise during the Seed project, such as travels, materials, licenses to be achieved, they will be anticipated by the SR International directly, if the amount is in the range of a few hundreds Euros.
- 4.4.1.5 Should more consistent expenses arise during the Seed Project development, the spender will give an expenses note to the CRAM Program Manager. Such expenses will be reimbursed as soon as the project will dispose of a financial budget.



4.4.2 Financing the CRAM Project

4.4.2.1 Funding the CRAM Project Management Team and Scientific Committee

- 4.4.2.1.1 The CRAM PMT and SC expenses shall be funded by foundations and donors.
- 4.4.2.1.2 Eligible expenses will include, at least: worked hours, travels, materials, software licenses, copy rights, patents, purchase of specialized services for particular technical or sociological tasks, advertising, communication, conventions, presentations, press conferences, printing services for brochures, editorial costs for publication and distribution of books and reports.
- 4.4.2.1.3 Any expenses shall be however checked for their eligibility by the CRAM PMT.
- 4.4.2.1.4 All expenses sustained by Members shall be preliminarily approved by the PMT.
- 4.4.2.1.5 All expenses shall be reported by proper expenses notes to the PMT, and will be reimbursed not later then three months after the presentation of the expenses note.

4.4.2.2 Funding the CRAM Project Sub-Assemblies activities

- 4.4.2.2.1 The CRAM Project Sub-Assemblies shall self-finance their own activities in the frame of the project.
- 4.4.2.2.2 The CRAM PMT will however be active and propositive to find grants to help working teams which, for being located in disadvantaged countries or particular critical situations, should have difficulties to put in place the agreed activities or to sustain expenses, e.g. computer hardware and software licenses.

4.5 Methodology

4.5.1 Project lifecycle

TBD

4.5.2 Project management

TBD

4.5.3 Requirements Documentation Tree

TBD

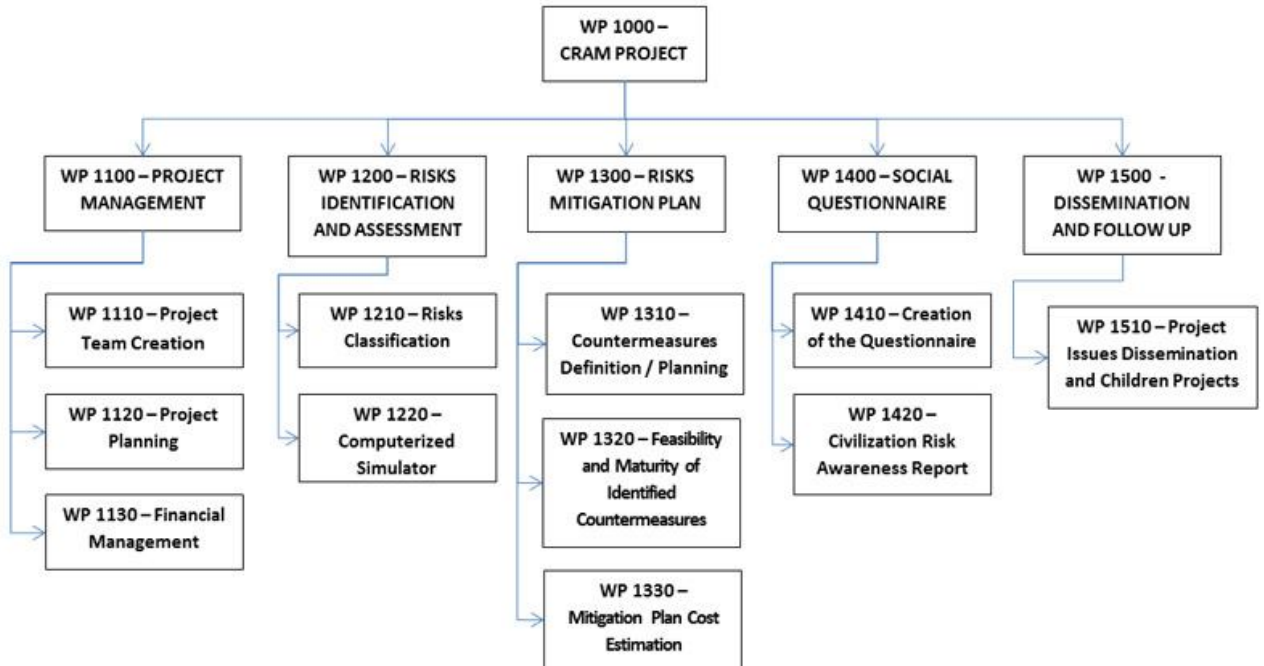
4.5.4 Configuration Management Process

TBD



5 Work Breakdown Structure (WBS) description

5.1 Project Work Breakdown Structure





5.2 Project Management

5.2.1 Creation of the Project Development Team

PROJECT:	Civilization Risks Assessment and Management	WP REF: 1110
WP Title:	Creation of the Project Development Team	Sheet 1 of 1
Contractor:	TBD	
Major Component:	Project development consortium agreement	
Start event:	Project preliminary kick-off	Planned date: T0
End event:	Project kick off meeting	Planned date: T0 + TBD months
WP Manager:	TBD	Issue date: TBD
Input:	<ul style="list-style-type: none"> a) Project statement of work (this document) b) Minutes of the SRI Congress and following meetings 	
Tasks Description:	<ul style="list-style-type: none"> a) Creating a list of entities to be contacted b) Contacting the listed entities, proposing the partnership c) Hold a skype meeting, in order to discuss the development of the project d) Draw an agreement, among the participants to the project e) Sign the agreement, , among the participants to the project. f) Project kick off meeting. 	
Deliverables:	<ul style="list-style-type: none"> a) Project development consortium agreement document 	T0 + TBD months
Standard:	TBD – standards for social research projects, if any	



5.2.2 Project planning: analysis, integration, verification

PROJECT:	Civilization Risks Assessment and Management	WP REF: 1120
WP Title:	Project planning: analysis, integration, verification	Sheet 1 of 1
Contractor:	TBD	
Major Component:	Project master plan	
Start event:	Project kick off meeting	Planned date: T0
End event:	Start of WP 1200	Planned date: T0 + TBD months
WP Manager:	TBD	Issue date: TBD
Input:		
a) Project statement of work (this document)		
b) Project consortium agreement document		
Tasks Description:		
a) Make a quotation of each project work package, in terms of working days		
b) Make a detailed plan of each project activity (sub-workpackages), relations among different activities, constrains and criticalities		
c) Define the project lifecycle		
d) Define software tools to manage requirements, open issues, verification procedures		
e) Define the project milestones		
f) Define the verification strategy and possibly test procedures		
Deliverables:		
a) Master Project Plan (MPP)		T0 + TBD months
Standard:		
TBD – standards for social research projects, if any		



5.2.3 Financial management and project funding

PROJECT:	Civilization Risks Assessment and Management	WP REF: 1130
WP Title:	Financial management and project funding	Sheet 1 of 1
Contractor:	TBD	
Major Component:	Project Financial Plan	
Start event:	Project kick off meeting	Planned date: T0
End event:	end of project	Planned date: T0 + TBD months
WP Manager:	TBD	Issue date: TBD
Input:		
a) Project statement of work (this document)		
b) Project consortium agreement document		
Tasks Description:		
a) Make a quotation of each project work package, in terms of financial needs		
b) Quote all production expenses, including e.g. travels of project managers, achievement of specialistic services, purchase of software licenses, etc...		
c) Define the timing of the financial needs: when each financial part is needed		
d) Define a strategy to get funding: grants, popular fundraising, institutions, donations, etc...		
e) List potential grants and donors		
f) Develop the plan		
Deliverables:		
a) Project Financial Plan (PFP)		T0 + TBD months
Standard:		
TBD – standards for social research projects, if any		



5.3 Risks identification and assessment

5.3.1 Capture analysis and classification of the main civilization risks

PROJECT:	Civilization Risks Assessment and Management	WP REF: 1210
WP Title:	Capture, analysis and classification of the main civilization risks	Sheet 1 of 1
Contractor:	TBD	Issue date: TBD
Major Component:	Civilization Risk Analysis document (CRA)	
Start event:	end of WP 1120 Planned date: T0	
End event:	start of WP 1310 Planned date: T0 + TBD months	
WP Manager:	TBD	
Input:		
	<ul style="list-style-type: none"> a) Project statement of work (this document) b) Master Project Plan 	
Tasks Description:		
	<ul style="list-style-type: none"> a) Run an international brain storming session, among all the participant entities, in order to list all the civilization risks b) Analyze each listed risk, in terms of probability of occurrence, time of occurrence, impact on civilization and velocity of propagation c) If needed use or create computerized simulator(s), in order to better estimate the real danger associated to each risk, its real probability and occurrence time d) Classify the analyzed risks in terms of danger degree 	
Deliverables:		
	<ul style="list-style-type: none"> a) Civilization Risk Analysis document (CRA) 	T0 + TBD months
Standard:		
	TBD – standards for social research projects, if any	



5.3.2 Computerized simulator

PROJECT:	Civilization Risks Assessment and Management	WP REF: 1220	
WP Title:	Computerized simulator	Sheet 1 of 1	
Contractor:	TBD	Issue date: TBD	
Major Component:	Developed or customized software simulator		
Start event:	end of WP 1120		Planned date: T0
End event:	start of WP 1300		Planned date: T0 + TBD months
WP Manager:	TBD		
Input:			
	a) Project statement of work (this document)		
	b) Master Project Plan		
Tasks Description:			
	a) Define the user requirements of the simulator		
	b) Seek a commercial product, if any		
	c) Customize the purchased software simulator, to match the requirements – OR -		
	d) Design and realize a proper software simulator, to match the requirements		
	e) Test the simulator vs. the requirements		
Deliverables:			
	a) Developed or customized software simulator	T0 + TBD months	
Standard:			
	TBD – standards for social research projects, if any		



5.4 Risks Mitigation Plan

5.4.1 For each identified risk, define proper countermeasures for mitigation

PROJECT:	Civilization Risks Assessment and Management	WP REF: 1310
WP Title:	For each identified risk, define proper countermeasures for mitigation	Sheet 1 of 1
Contractor:	TBD	Issue date: TBD
Major Component:	Risk Mitigation Plan (RMP)	
Start event:	end of WP 1200	Planned date: T0
End event:	start of WP 1320	Planned date: T0 + TBD months
WP Manager:	TBD	
Input:	<ul style="list-style-type: none"> a) Project statement of work (this document) b) Master Project Plan (MPP) c) Civilization Risk Analysis document (CRA) 	
Tasks Description:	<ul style="list-style-type: none"> a) For each identified risk, define proper countermeasures for mitigation b) Run simulation to estimate the after mitigation risk c) Design a plan for implementing the mitigation measures 	
Deliverables:	<ul style="list-style-type: none"> a) Risk Mitigation Plan (RMP) 	T0 + TBD months
Standard:	TBD – standards for social research projects, if any	



5.4.2 Feasibility and Maturity of Identified Countermeasures

PROJECT:	Civilization Risks Assessment and Management	WP REF: 1320
WP Title:	Feasibility and Maturity of Identified Countermeasures	Sheet 1 of 1
Contractor:	TBD	
Major Component:	Countermeasures Feasibility Document (CFD)	
Start event:	end of WP 1310	Planned date: T0
End event:	start of WP 1330	Planned date: T0 + TBD months
WP Manager:	TBD	Issue date: TBD
Input: <ul style="list-style-type: none"> a) Project statement of work (this document) b) Master Project Plan (MPP) c) Civilization Risk Analysis document (CRA) d) Risk Mitigation Plan (RMP) Tasks Description: <ul style="list-style-type: none"> a) For each identified countermeasure, analyze the feasibility and maturity of implied processes and technologies b) Review the risk mitigation plan according to results of the above analysis Deliverables: <ul style="list-style-type: none"> a) Countermeasures Feasibility Document (CFD) b) Reviewed Risk Mitigation Plan (RMP) Standard: <p>TBD – standards for social research projects, if any</p>		T0 + TBD months T0 + TBD months



1.1.1 Mitigation Plan Cost Estimation

PROJECT:	Civilization Risks Assessment and Management	WP REF: 1320
WP Title:	Mitigation Plan Cost Estimation	Sheet 1 of 1
Contractor:	TBD	
Major Component:	Risk Mitigation Plan Cost Estimation Document (RMPCE)	Issue date:
Start event:	end of WP 1320	Planned date: T0
End event:	start of WP 1400	Planned date: T0 + TBD months
WP Manager:	TBD	TBD
Input: a) Project statement of work (this document) b) Master Project Plan (MPP) c) Civilization Risk Analysis document (CRA) d) Risk Mitigation Plan (RMP)		
Tasks Description: a) Design a raw wbs of the mitigation project(s) b) For each project.workpackage call proper suppliers to make their offers c) Calculate global and articulated costs of the whole mitigation plan		
Deliverables: a) Risk Mitigation Plan Cost Estimation Document (RMPCE)		T0 + TBD months
Standard: TBD – standards for social research projects, if any		



5.5 Social questionnaire

5.5.1 Questionnaire about civilization risks

PROJECT:	Civilization Risks Assessment and Management			WP REF: 1410
WP Title:	Questionnaire about civilization risks			Sheet 1 of 1
Contractor:	TBD			Issue date: TBD
Major Component:	Civilization Risk Questionnaire (CRQ)			
Start event:	end of WP 1200	Planned date:	T0	
End event:	start of WP 1500	Planned date:	T0 + TBD months	
WP Manager:	TBD			
Input:	<ul style="list-style-type: none"> a) Project statement of work (this document) b) Master Project Plan (MPP) c) Civilization Risk Analysis document (CRA) 			
Tasks Description:	<ul style="list-style-type: none"> a) Compose a questionnaire about civilization risks, based on the result of the analysis, investigating the people's availability to support risk mitigation measures b) Identify a list of partners for questionnaire dissemination c) Design a plan for the development of the survey in the society d) Spread the questionnaire through the web and various social media and networks 			
Deliverables:	<ul style="list-style-type: none"> a) Civilization Risk Questionnaire (CRQ) 			T0 + TBD months
Standard:	TBD – standards for social research projects, if any			



5.5.2 Civilization Risk Awareness Report

PROJECT:	Civilization Risks Assessment and Management	WP REF: 1420
WP Title:	Civilization Risk Awareness Report	Sheet 1 of 1
Contractor:	TBD	
Major Component:	Civilization Risk Awareness Report (CRAR)	Issue date: TBD
Start event:	end of WP 1410	Planned date: T0
End event:	start of WP 1500	Planned date: T0 + TBD months
WP Manager:	TBD	
Input:	<ul style="list-style-type: none"> a) Project statement of work (this document) b) Master Project Plan (MPP) c) Civilization Risk Analysis document (CRA) d) Civilization Risk Questionnaire (CRQ) e) Collected answers to the questionnaire 	
Tasks Description:	<ul style="list-style-type: none"> a) Collect and process the answers to the questionnaire b) Compose a statistical picture of the people awareness about the civilization risks c) Organize the lessons learned, about involving people and communities in the implementation of the risk mitigation plan 	
Deliverables:	<ul style="list-style-type: none"> a) Civilization Risk Questionnaire (CRQ) 	T0 + TBD months
Standard:	TBD – standards for social research projects, if any	



5.6 Dissemination and follow up

5.6.1 Dissemination of the project issues and children projects conceptual design

PROJECT:	Civilization Risks Assessment and Management		WP REF: 1510
WP Title:	Dissemination of the project issues and children projects conceptual design		Sheet 1 of 1
Contractor:	TBD		Issue date: TBD
Major Component:	Civilization Risk Report (CRR)		
Start event:	end of WP 1420	Planned date:	T0
End event:	end of project	Planned date:	T0 + TBD months
WP Manager:	TBD		
Input:	<ul style="list-style-type: none"> a) Project statement of work (this document) b) Master Project Plan (MPP) c) Civilization Risk Analysis document (CRA) d) Civilization Risk Questionnaire (CRQ) e) Civilization Risk Awareness Report (CRAR) 		
Tasks Description:	<ul style="list-style-type: none"> a) Collect and integrate the results of the questionnaire with the results of the risks assessment and the risks mitigation plan b) Present the complete dossier to the (potentially) interested communities and institutions, organizing a dedicated public convention c) Lessons learned d) Define basic requirements of the follow-up project: implementation of the mitigation plan 		
Deliverables:	a) Book: Civilization Risk Report (CRR)		T0 + TBD months
Standard:	TBD – standards for social research projects, if any		