

PART A - Project overview

A.1 Project identification

Programme priority	Priority 3 - Liveable Alpine Space	
Programme priority specific objective	SO3.2 - Enhance the protection, the conservation and the ecological connectivity of Alpine Space ecosystems	
Project acronym	RockTheAlps	
Project title	Harmonized ROCKfall natural risk and protection forest mapping in the ALPine Space	
Project number	462	
Name of the lead partner organisation/original language	Institut national de recherche en sciences et technologies pour l'environnement et l'agriculture, Groupement de Grenoble	
Name of the lead partner organisation/English	National research institute of science and technology for environment and agriculture, Grenoble regional centre	
Project duration 36 months 0 days	Start date	2016-11-01
	Closure date	2019-10-31

A.2 Project summary

Please give a short overview of the project (in the style of a press release) and describe:

- *the common challenge you are jointly tackling in the project;*
- *the main objective of the project and the expected change the project will make to the current situation;*
- *what makes the project innovative;*
- *the main outputs you will produce and who will benefit from them, also after the end of the project;*
- *the approach you plan to take to tackle the identified challenges;*
- *the added value of the transnational approach: why do you plan to work at transnational level?*

In natural hazard management and disaster risk reduction worldwide, but especially in the Alpine Space, forests are increasingly considered equal to technical or civil engineering measures. Forests can, e.g. lead to increase slope stability and reduce the risk to an acceptable level in many locations. Where forests are present, the implementations of technical measures for risk reduction are often redundant or cheaper. Beautiful examples are the numerous forests throughout the Alps that prevent the release of snow avalanches instead of expensive snow racks and the large scale afforestation in the late 19th century that nowadays prevent upslope erosion and sedimentation problems in the lower parts of the Alpine catchments. The preservation and enhancement of the protective role of forests against natural risks are key to an efficient strategy for strengthening the liveability of the AS. The 6 Pan EU Ministerial Conferences on the Protection of Forest held since 1990, have all stressed the need for a common approach to value Forest Ecosystem Services (FES) as a basis for developing a Sustainable Forest Management. Prioritisation of FES has to be done on the basis of societal needs. Although it is widely recognised that reduction of natural hazard risks is one of these, harmonised methods mapping this FES are currently not available. Within this context, ROCKtheALPS will capitalise the knowledge gained in previous EU projects and fulfil its main objectives to provide the 1st AS regional rockfall risk zoning tool, as well as the 1st AS wide harmonised map of rockfall risk and protection forests, these innovative maps will contribute to enhance action 8 of EUSALP (improving risk management), and the action 5 of Europe 2020 biodiversity strategy (FES mapping/valuing). These outputs will support local/regional/national/EU governance authorities in risk prevention/forest management. An interdisciplinary/transnational partnership has been set up with a 1.86 M€ ERDF budget.

A.3 Project budget summary

ERDF

Partner		Programme Co-financing		Contribution	Total Eligible Budget
Partner	Country	ERDF	ERDF Co-Financing(%)	Total Contribution	
Institut national de recherche en sciences et technologies pour l'environnement et l'agriculture, Groupement de Grenoble	FRANCE	198.780,02	85,00 %	35.078,83	233.858,85
Bureau de Recherches Géologiques et Minières	FRANCE	128.392,71	85,00 %	22.657,54	151.050,25
Alp'Géorisques	FRANCE	65.034,77	85,00 %	11.476,73	76.511,50
Zavod za gozdove Slovenije	SLOVENIJA	131.165,58	85,00 %	23.146,87	154.312,45
Univerza v Ljubljani, Biotehniška fakulteta, Oddelek za gozdarstvo in obnovljive gozdne vire	SLOVENIJA	130.869,31	85,00 %	23.094,59	153.963,90
Gozdarski inštitut Slovenije	SLOVENIJA	134.889,77	85,00 %	23.804,08	158.693,85
Università degli Studi di Padova	ITALIA	154.997,50	85,00 %	27.352,50	182.350,00
Dipartimento di Scienze Agrarie Forestali e Alimentari, Università degli studi di Torino	ITALIA	129.965,00	85,00 %	22.935,00	152.900,00
Ente Regionale per i Servizi all'Agricoltura e alle Foreste - Regione Lombardia	ITALIA	131.999,90	85,00 %	23.294,10	155.294,00
PROVINCIA AUTONOMA DI TRENTO - SERVIZIO FORESTE E FAUNA	ITALIA	131.750,00	85,00 %	23.250,00	155.000,00
Politecnico di Torino	ITALIA	124.988,63	85,00 %	22.056,82	147.045,45
Bundesforschungs- und Ausbildungszentrum für Wald, Naturgefahren und Landschaft	ÖSTERREICH	144.999,46	85,00 %	25.588,14	170.587,60
Bundesministerium für Land und Forstwirtschaft, Umwelt und Wasserwirtschaft	ÖSTERREICH	104.091,00	85,00 %	18.369,00	122.460,00
Bayerische Landesanstalt für Wald und Forstwirtschaft	DEUTSCHLAND	144.920,75	85,00 %	25.574,25	170.495,00
Total		1.856.844,40	---	327.678,45	2.184.522,85

Non-ERDF

Partner		Programme Co-financing		Contribution	Total Eligible Budget
Partner	Country	Non-ERDF	Non-ERDF Co-Financing(%)	Total Contribution	
Berner Fachhochschule / HAFL	SCHWEIZ/SUISSE/SV IZZERA	0,00	0,00 %	61.893,65	61.893,65
Total		0,00	---	61.893,65	61.893,65

A.4 Project outputs

Overview table on project outputs as defined in the work plan					
Programme output indicators	Project output indicator targets	Measurement Unit	Project output quantification (target)	Project output number	Project output (title)
OI3.2.2 - Number of developed strategic elements aiming to enhance the protection, the conservation and the ecological connectivity of Alpine Space ecosystems	3,00	Number	1,00	T2.1.1	Formalizing of illustrated evidence on the protective role of forests, dedicated to political decision-makers.
			1,00	T2.2.1	TORRID toolbox
			1,00	T3.1.1	Maps relevant for protection forest and rockfall hazard management
OI3.2.3 - Number of developed implementation elements enhancing the protection, the conservation and the ecological connectivity of Alpine Space ecosystems	4,00	Number	1,00	T1.1.1	Conceptualisation of the first historic rockfall events AS database
			1,00	T1.3.1	ROCK-EU : a methodology for defining rockfall release and runout zones in the AS
			1,00	T4.1.1	ASFORESEE: an AS harmonized methodology for economical assessment of protection forest ecosystems service
			1,00	T5.1.1	Conceptualisation and production of a WEBGIS rockfall protection forest territorial information system

PART B - Project partners and observers

B.1 Project Partners

Lead partner 1

Partner role in the project	LP
Name of the organisation in original language	Institut national de recherche en sciences et technologies pour l'environnement et l'agriculture, Groupement de Grenoble
Name of the organisation in English	National research institute of science and technology for environment and agriculture, Grenoble regional centre
Abbreviation of the organisation	IRSTEA
Department/unit/division in English	IRSTEA Grenoble regional centre, Mountain Ecosystem Research Unit (EMGR)
Country (NUTS 0)	FR, FRANCE
Region (NUTS 2)	FR71, Rhône-Alpes
Sub-region (NUTS 3)	FR714, Isère
Postcode and City	38402 Saint Martin d'Hères
Street	rue de la papeterie BP76 2
Homepage	http://www.irstea.fr/linstitut/nos-centres/grenoble
Type of partner	higher education and research
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	FR 76 180070013
Entitled to recover VAT?	yes
Legal representative firstname	Jean-Marc
Legal representative lastname	Bournigal
Legal representative email	jean-marc.bournigal@irstea.fr
Legal representative telephone	+33 (0) 140966170
Contact person firstname	Frédéric
Contact person lastname	Berger
Contact person email	frederic.berger@irstea.fr
Contact Person Telephone	+33 (0) 476762800
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	Irstea is centered on applied research for producing concrete solutions to aid decision makers, support public policies (Europe/State/communities), lead to action. Rockfall: 2D&3D modeling, past events surveys/ database, lab/in situ experiments Protection forest: development of models/methodologies/guidelines for protective forest ecosystems services characterization, mapping&management Spatial analysis: forest inventory using high resolution data, development of GIS tools. Development of risk plan prevention & territorial intelligence network Technical & scientific supports to decision/policy makers for FR mountain forests strategies/mountain territories development /risks prevention policies/human welfare policies International expert
What is the partner's role and responsibility in the project?	LP: consortium management/project implementation/reporting/ communication strategy /exchanges with JTS/MA, sharing his EU projects leadership know-how , responsible for the project's results dissemination in F. Project tools deployment in the French AS
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	Leadpartner of the EU projects: Cartesian (4th Framework Program), Rockfor (5th FP), NEWFOR (Interreg AS). WP leader in the EU projects: ECOSLOPE (5th FP), Interreg projects: GSM, Provalp, Knowforalp, Manfred, Paramount, IFP, Start-it-Up.

Project partner 2

Partner role in the project	PP
Name of the organisation in original language	Bureau de Recherches Géologiques et Minières
Name of the organisation in English	French Geological Survey
Abbreviation of the organisation	BRGM
Department/unit/division in English	Direction régionale Provence-Alpes-Côte d'Azur
Country (NUTS 0)	FR, FRANCE
Region (NUTS 2)	FR82, Provence-Alpes-Côte d'Azur
Sub-region (NUTS 3)	FR824, Bouches-du-Rhône
Postcode and City	13276 Marseilles (Cedex 9)
Street	avenue de Luminy (BP 168) 117
Homepage	http://www.brgm.fr/
Type of partner	regional public authority
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	FR 67 582 056 149
Entitled to recover VAT?	yes
Other national identifying number	
Type of identifying number	
Legal representative firstname	Karim
Legal representative lastname	Ben Slimane
Legal representative email	k.benslimane@brgm.fr
Legal representative telephone	+33 (0) 238643566
Contact person firstname	Claire
Contact person lastname	ARNAL
Contact person email	c.arnal@brgm.fr
Contact Person Telephone	+33(0) 491172293
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	In support of public policies & applied research, BRGM leads in particular the following actions on landslides: evaluation of hazards & vulnerability, associated with a process mapping & risk management, expertise & support from the State & local authorities, implementation & management of national databases on key risks, implementation of data acquisition & information (GIS) to state & public operators. In the field of rockfalls the objectives are: understand & analyze the mechanisms in terms of initiation (hazard rupture), achieving modeling tools validated at pilot sites/ local scale, achieving/improving hazards/risks assessment methods deployable at regional level , development of operational tools for economic evaluation of policies
What is the partner's role and responsibility in the project?	BRGM role is based on its geological/risk expertise: past events back-analysis, provision of geological harmonized layer, risk analysis, econometric valuation of risk mitigation strategies, main F relay information to risk management local networks
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	BRGM is member of Eurogeosurveys. BRGM is involved in European research programs: 45 projects FP7 (9 as coordinator) and is engaged in INTERREG projects. On the thematic scope of the project: Safeland (FP7), DO-SMS (SUDOE), MASSA, RISKNET (ALCOTRA)

Project partner 3

Partner role in the project	PP
Name of the organisation in original language	Alp'Géorisques
Name of the organisation in English	Alp'Géorisques
Abbreviation of the organisation	Alp'Géorisques
Department/unit/division in English	Alp'Géorisques
Country (NUTS 0)	FR, FRANCE
Region (NUTS 2)	FR71, Rhône-Alpes
Sub-region (NUTS 3)	FR714, Isère
Postcode and City	38420 Domène
Street	rue du Moirond 52
Homepage	www.alpgeorisques.com
Type of partner	SME
Legal status	private
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	FR 70 380 934 216
Entitled to recover VAT?	yes
Other national identifying number	
Type of identifying number	
Legal representative firstname	Didier
Legal representative lastname	Mazet-Brachet
Legal representative email	didier.mazetbrachet@alpgeorisques.com
Legal representative telephone	+33 (0) 476779200
Contact person firstname	Jean-Pierre
Contact person lastname	Rossetti
Contact person email	jeanpierre.rossetti@alpgeorisques.com
Contact Person Telephone	+33 (0) 476775597
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	Since 1991, Alp'Géorisques is a private company specialized in communal risk plan prevention development in France. Its main competences are rockfall risks analysis using field observations/geomorphology/structural analysis/ rockfall modelling and regulatory risks mapping using GIS. It's also conducting expertise for defining and dimensioning rockfalls protection design. It's a private actor involved in the French policy for natural hazard/risk reduction. It's actively involved in the national and ministerial working group on rockfall risks regulatory zoning and the development of a new methodology based on the use of propagation models. According to its activities, it has strong communication skills with municipalities/inter-profession.
What is the partner's role and responsibility in the project?	Involved in all the WPs: sharing its past events/Risk Prevention Plans databases , testing/ improving the project models, assessing the economic aspect of rockfalls protection measures, heightening awareness on mitigation forest services in RPP.
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	not applicable

Project partner 4

Partner role in the project	PP
Name of the organisation in original language	Zavod za gozdove Slovenije
Name of the organisation in English	Slovenian Forest Service
Abbreviation of the organisation	SFS
Department/unit/division in English	Forest technique and rural development
Country (NUTS 0)	SI, SLOVENIJA
Region (NUTS 2)	SI02, Zahodna Slovenija
Sub-region (NUTS 3)	SI021, Osrednjeslovenska
Postcode and City	1000 Ljubljana
Street	Večna pot 2
Homepage	http://www.zgs.si/
Type of partner	national public authority
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	SI91496080
Entitled to recover VAT?	yes
Other national identifying number	
Type of identifying number	
Legal representative firstname	Damjan
Legal representative lastname	Oražem
Legal representative email	Damjan.orazem@zgs.s
Legal representative telephone	+386 14700050
Contact person firstname	Jurij
Contact person lastname	Beguš
Contact person email	Jurij.begus@zgs.si
Contact Person Telephone	+386 14700071
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	SFS is a public institution, which performs public forestry service in all Slovenian forests. SFS tasks/activities are connected with all forest activities on national level: management, planning, silviculture, forest geodatabases&GIS, forest technologies, construction/maintenance of forest roads, and education of different interest groups in forestry, popularization of forests/rural development activities. As expert in forest management, SFS has currently an important role in forest management in areas endangered by rockfalls & other natural risks. SFS performs public forestry service in all forests, irrespective of ownership. It's a national authority for scientific/technical supports for all forests & regional development/strategy policy
What is the partner's role and responsibility in the project?	SFS will provide data on SI forests stands/needed parameters (geology...) for models development, SI case studies selection/uses, support models operational deployment in SI, develop guidelines dedicated to its experts, carry out dissemination activities
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	Interreg projects: Network Mountain Forests, KnowForAlp, Forest & Water, Manfred, Newfor FAO : Supply & utilization of bioenergy to promote sustainable forest management LIFE project : Natura 2000 Management programme for Slovenia 2014-2020, WETMAN

Project partner 5

Partner role in the project	PP
Name of the organisation in original language	Univerza v Ljubljani, Biotehniška fakulteta, Oddelek za gozdarstvo in obnovljive gozdne vire
Name of the organisation in English	University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources
Abbreviation of the organisation	UL
Department/unit/division in English	Biotechnical Faculty, Department for Forestry and Renewable Resources
Country (NUTS 0)	SI, SLOVENIJA
Region (NUTS 2)	SI02, Zahodna Slovenija
Sub-region (NUTS 3)	SI021, Osrednjeslovenska
Postcode and City	1000 Ljubljana
Street	Kongresni trg 12
Homepage	www.bf.uni-lj.si
Type of partner	higher education and research
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	SI54162513
Entitled to recover VAT?	yes
Other national identifying number	
Type of identifying number	
Legal representative firstname	Ivan
Legal representative lastname	Svetlik
Legal representative email	rektor@uni-lj.si Legal Representative
Legal representative telephone	+ 386 (0) 12418604
Contact person firstname	Milan
Contact person lastname	KOBAL
Contact person email	milan.kobal@bf.uni-lj.si
Contact Person Telephone	+386 (0) 13203512
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	Mountain forest/ landscape characterization, mapping, developing innovative sustainable management (silvicultural) practice, spatial modelling (e.g. rockfall), GIS, remote sensing of vegetation, management of natural hazard in forest & rural areas, risk past events sites monitoring with UAV/LiDAR. The Dep. of Forestry & Renewable Forest Resources is the only institution in SI that offers BSc, MSc & PhD studies in forestry. Research groups continuously work on research projects, financed by Min. of Agric., Forestry and Food, as co-financed by EU. Tech. & sci. supports for SI forests & mountain territories development policy. Transfer & dissemination of applied research results to practitioners, policy makers & local authorities.
What is the partner's role and responsibility in the project?	UL (Biotechnical faculty) will be responsible partner for WP1 and will important participate / contribute in all WPs. UL will work intensively on mapping of the rockfall protection forest and risk assessment for SI / all whole alpine space area.
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	In the period 2009-2014, researchers from UL participated in 11 EU projects, (Framework Programmes, Life+, Interreg) and 10 COST actions. Researchers were involved in 6 formal bilateral projects with universities in the USA, IT, HR, BA, RS & SK.

Project partner 6

Partner role in the project	PP
Name of the organisation in original language	Gozdarski inštitut Slovenije
Name of the organisation in English	Slovenian Forestry Institute
Abbreviation of the organisation	SFI
Department/unit/division in English	Department of Forest and Landscape Planning and Monitoring
Country (NUTS 0)	SI, SLOVENIJA
Region (NUTS 2)	SI02, Zahodna Slovenija
Sub-region (NUTS 3)	SI021, Osrednjeslovenska
Postcode and City	1000 Ljubljana
Street	Večna pot 2
Homepage	http://www.gozdis.si/domov/
Type of partner	higher education and research
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	SI37808052
Entitled to recover VAT?	no
Other national identifying number	
Type of identifying number	
Legal representative firstname	Primož
Legal representative lastname	Simončič
Legal representative email	primoz.simoncic@gozdis.si
Legal representative telephone	+386 (0) 12007801
Contact person firstname	Mitja
Contact person lastname	Skudnik
Contact person email	mitja.skudnik@gozdis.si
Contact Person Telephone	+386 (0) 31327432
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	Protection forest characterization/mapping/management Capitalization & exploitation of knowledge on forest ecosystems and services management in guidelines/handbook Rockfall modelling : past events surveys and database, retro-analysis, models development Geographic Information System: geo-data base implementation & management, webgis development, GIS applications development, models implementation in GIS SFI conducts applied research on forest's management, wood mobilization, forest landscapes and forest ecosystems services. SFI provides knowledge, information and organizes info & working events (training sessions, seminar, workshop, courses) on forestry and environmental services of public interest.
What is the partner's role and responsibility in the project?	Developing of the tool for harmonized mapping of rockfall protection forests and developing the model to the economic evaluation of rockfall protection forest ES. Results will be presented to the interested SI stakeholders and scientific community.
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	SFI has many years of experience in managing & implementing Eu/Int. projects. Interreg :KnowForAlps, Manfred, Newfor, EFFMIS, ALP FFIRS 7FP: STAR TREE (2012-2016) LIFE+: EmonFUR, Managing forest for multiple purposes EGP: GoForMura (2014-2016) ANFIN: ProAlp

Project partner 7

Partner role in the project	PP
Name of the organisation in original language	Università degli Studi di Padova
Name of the organisation in English	University of Padova
Abbreviation of the organisation	UNIPD
Department/unit/division in English	TESAF – DEPARTMENT OF LAND, ENVIRONMENT, AGRICULTURE AND FORESTRY
Country (NUTS 0)	IT, ITALIA
Region (NUTS 2)	ITH3, Veneto
Sub-region (NUTS 3)	ITH36, Padova
Postcode and City	35020 Legnaro
Street	Viale dell'Università 16
Homepage	www.tesaf.unipd.it
Type of partner	higher education and research
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	00742430283
Entitled to recover VAT?	yes
Other national identifying number	
Type of identifying number	
Legal representative firstname	Raffaele
Legal representative lastname	cavalli
Legal representative email	Raffaele.cavalli@unipd.it
Legal representative telephone	+39 049 8272729
Contact person firstname	Emanuele
Contact person lastname	Lingua
Contact person email	emanuele.lingua@unipd.it
Contact Person Telephone	+39 049 8272711
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	UNIPD holds great experience in silviculture and sustainable forest management in mountain areas. The unit has a specific knowledge in forest and land characterization by using different remote sensing sensors and platforms (aerial photos, LiDAR, satellite imageries,), in forest data analysis with GIS tools, in WEBGIS implementation. Among the UNIT skills is the transfer and dissemination of applied research results to practitioners and policy makers, by implementing forest management guidelines. Thematic competences that will be provided to the project concern spatial analysis, GIS and RS techniques applied to environmental systems, WEBGIS platform implementation, and organization of training activities, workshops and a summer school
What is the partner's role and responsibility in the project?	TESAF will lead WP5 & participate actively in all WPs. It will be the coordinator of the IT PPs for mapping activities (models building up/enhancing, mapping methodologies operational deployment in the IT AS). It's the "IT contact person" of the LP.
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	TESAF has been involved as LP or PP in several EU co-financed projects, such as VI and VII FP, South East Europe. Life+, and Alpine Space. In the AS programs was partner in PARAMOUNT, NEWFOR; SEDALP and cooperated with ALPFIRS, C3ALPS,Recharge.Green.

Project partner 8

Partner role in the project	PP
Name of the organisation in original language	Dipartimento di Scienze Agrarie Forestali e Alimentari, Università degli studi di Torino
Name of the organisation in English	Department of Agricultural, Forest and Food Sciences, University of Turin
Abbreviation of the organisation	DISAFA
Department/unit/division in English	Forestry sector
Country (NUTS 0)	IT, ITALIA
Region (NUTS 2)	ITC1, Piemonte
Sub-region (NUTS 3)	ITC11, Torino
Postcode and City	10100 Torino
Street	Via Verdi 8
Homepage	http://www.disafa.unito.it/do/home.pl
Type of partner	higher education and research
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	80088230018
Entitled to recover VAT?	yes
Other national identifying number	
Type of identifying number	
Legal representative firstname	Gianmaria
Legal representative lastname	Ajani
Legal representative email	gianmaria,ajani@unito.it
Legal representative telephone	+39 011 6702552
Contact person firstname	Renzo
Contact person lastname	Motta
Contact person email	renzo.motta@unito.it
Contact Person Telephone	+39 011 6705538
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	DISAFA has long and international experience (IUFRO) in the development and the dissemination of silvicultural and sustainable mountain forest management guidelines with special reference to the protection forests. DISAFA holds a great experience in applied research on patterns and processes of natural hazards including characterization, mapping and post-disturbance restoration that has been developed in long-term research and monitoring in different forest types of the Alps and of other European mountains. The thematic competences are: analysis of the resistance and of the resilience of the forest stands, remote sensing and GIS techniques, forest econometrics & forest ecosystems services assessments.
What is the partner's role and responsibility in the project?	According to its competences in forest econometric, DISAFA is leading WP4: supervising/managing the set-up of an innovative method. for economical assessment of protection forest in risk disaster reduction policy. Involved in WP1/3/5 silviculture tasks.
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	DISAFA is an international expert in mountain forests management. It has: participated in Interreg projects dealing with the protective role of forests & to its sustainable management, been involved in several 5th/6th/7th FP EU projects & in COST actions.

Project partner 9

Partner role in the project	PP
Name of the organisation in original language	Ente Regionale per i Servizi all'Agricoltura e alle Foreste - Regione Lombardia
Name of the organisation in English	Regional Agency for Services in Agriculture and Forest – Lombardia Region
Abbreviation of the organisation	ERSAF
Department/unit/division in English	Department knowledge and development of innovation in Agro Forestry
Country (NUTS 0)	IT, ITALIA
Region (NUTS 2)	ITC4, Lombardia
Sub-region (NUTS 3)	ITC4C, Milano
Postcode and City	20124 Milano
Street	via Pola 12
Homepage	www.ersaf.lombardia.it
Type of partner	sectoral agency
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	03609320969
Entitled to recover VAT?	no
Other national identifying number	
Type of identifying number	
Legal representative firstname	Elisabetta
Legal representative lastname	Parravicini
Legal representative email	elisabetta.parravicini@ersaf.lombarda.it
Legal representative telephone	+39 02 67404 231
Contact person firstname	Bruna
Contact person lastname	Comini
Contact person email	bruna.comini@ersaf.lombardia.it
Contact Person Telephone	+39 02 67404 479
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	ERSAF provides data from forest / risk sectors, tests methodologies and tools including the effect of vegetation, holds training, dissemination and communication activities at regional and local levels. ERSAF is developing skill, experience and expertise in economic valuation of ecosystem services. ERSAF plays a key role in supporting the implementation of regional policies for forests and mountain areas Forest management, management of natural hazard in forest and rural areas, technical support to forest regional policies Technical support for governance of mountain forests and rural areas in Lombardia Region, direct management of regional forests, support to local authorities for land management
What is the partner's role and responsibility in the project?	ERSAF contributes to activities in all WPs, to provide data and select Pilot Areas, to implement rockfall model, to evaluate forest effect, test tools, hold training, transfer results to regional policies, dissemination at regional&local level
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	Extensive and long lasting experience in EU project management and implementation: 12 Interreg projects (AS included) 11 LIFE projects 1 LIFE Integrated project

Project partner 10

Partner role in the project	PP
Name of the organisation in original language	PROVINCIA AUTONOMA DI TRENTO – SERVIZIO FORESTE E FAUNA
Name of the organisation in English	AUTONOMOUS PROVINCE OF TRENTO – FOREST AND WILDLIFE DEPARTMENT
Abbreviation of the organisation	PAT-SFF
Department/unit/division in English	FOREST AND WILDLIFE DEPARTMENT
Country (NUTS 0)	IT, ITALIA
Region (NUTS 2)	ITH2, Provincia Autonoma di Trento
Sub-region (NUTS 3)	ITH20, Trento
Postcode and City	38121 Trento
Street	Via G. B. Trener 3
Homepage	www.foreste.provincia.tn.it
Type of partner	regional public authority
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	00337460224
Entitled to recover VAT?	no
Other national identifying number	
Type of identifying number	
Legal representative firstname	Maurizio
Legal representative lastname	Zanin
Legal representative email	serv.foreste@provincia.tn.it
Legal representative telephone	+39 0461 495940
Contact person firstname	Paola
Contact person lastname	Comin
Contact person email	paola.comin@provincia.tn.it
Contact Person Telephone	+39 0461 495776
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	PAT-SFF is in charge of monitoring, planning and managing of forest areas in Trento province and assessing their functions. Based on a very robust forest field database, PAT-SFF has developed experience in implementing accessible geodatabases related to forests and territory, gaining skills in detecting forest parameters and functions from remote-sensing data. A methodology for mapping rockfall protection forest was recently developed. PAT-SFF addresses and supports local public and private forest sector; its strong capacity of monitoring and control is the basis of Trento Province policies for forests and mountain areas, particularly in the fields of forest resources management, natural hazard management and risks prevention.
What is the partner's role and responsibility in the project?	PAT-SFF will contribute to all WP, providing data from forest sector and from selected Pilot Areas, testing methodologies and tools, holding training, dissemination and communication activities at local and national level.
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	Significant experience as PP in AS project NEWFOR 2-3-2-FR, concluded in 2014. PAT-SFF also participates since 2010 in LIFE+ projects for Alpine Bear conservation (ARCTOS, concluded in 2014; DinAlp Bear, ongoing) & supports LIFE WOLFALPS project (ongoing).

Project partner 11

Partner role in the project	PP
Name of the organisation in original language	Politecnico di Torino
Name of the organisation in English	Politecnico di Torino
Abbreviation of the organisation	POLITO
Department/unit/division in English	DIATI - Department of Territory, Land and infrastructure Engineering
Country (NUTS 0)	IT, ITALIA
Region (NUTS 2)	ITC1, Piemonte
Sub-region (NUTS 3)	ITC11, Torino
Postcode and City	10129 Torino
Street	Corso Duca degli Abruzzi 24
Homepage	http://www.polito.it/
Type of partner	higher education and research
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	00518460019
Entitled to recover VAT?	no
Other national identifying number	
Type of identifying number	
Legal representative firstname	Marco
Legal representative lastname	Gilli
Legal representative email	rettore@polito.it
Legal representative telephone	+39 011 0906300
Contact person firstname	Marco
Contact person lastname	Piras
Contact person email	marco.piras@polito.it
Contact Person Telephone	+39 011 0907661
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	Land uses and forest stands characterization by using Geomatics tools, high resolution data and remote sensing technics (aerial photogrammetry, LiDAR), development of UAV and UGV systems for sites monitoring and natural risks past events surveys, safety survey during emergency and crisis management, data analysis and management with GIS and WEBGIS tools. 3D modelling and Virtual reality for scientific, technical and public communication Transfer and dissemination of applied research results to end users and policy makers. Technical/scientific supports for Italian mountain territories/civil protection/emergency management and forest services.
What is the partner's role and responsibility in the project?	POLITO is in charge of all the UAV tasks: sites field surveys, formalizing UAV survey protocol, guidelines on UAV in risk prevention/management. In all WPs sharing its high performance computing power for database management/GIS developments/calculation
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	POLITO has been involved as PP in several EU co-financed projects, such as 7FP, Life, and Interreg ALCOTRA. Moreover, It has recently submitted three proposals for the last H2020 calls.

Project partner 12

Partner role in the project	PP
Name of the organisation in original language	Bundesforschungs - und Ausbildungszentrum für Wald, Naturgefahren und Landschaft
Name of the organisation in English	Federal Research and Training Centre for Forests, Natural Hazards and Landscape
Abbreviation of the organisation	BFW
Department/unit/division in English	Department of Natural Hazards, Unit for Water Balance in Alpine Catchments
Country (NUTS 0)	AT, ÖSTERREICH
Region (NUTS 2)	AT33, Tirol
Sub-region (NUTS 3)	AT332, Innsbruck
Postcode and City	6020 Innsbruck
Street	Rennweg 1
Homepage	http://bfw.ac.at/
Type of partner	higher education and research
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	ATU 61289616
Entitled to recover VAT?	no
Other national identifying number	
Type of identifying number	
Legal representative firstname	Peter
Legal representative lastname	Mayer
Legal representative email	direktion@bfw.gv.at
Legal representative telephone	+43 1 878380
Contact person firstname	Karl
Contact person lastname	Kleemayr
Contact person email	Karl.Kleemayr@bfw.gv.at
Contact Person Telephone	+43 (0) 512 5739335101
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	The Department of Natural Hazards and Alpine Timberline is a research unit dedicated to the development of practice-oriented methods for the sustainable protection of human settlements and infrastructure. Fundamental research and continuous monitoring of relevant parameters are an essential element of the activities. Moreover, the department follows a landscape-related and an integrated approach to natural hazard processes in mountainous regions. The topics addressed in RockTheAlps and the proposed methods are inherent part of the department philosophy. In addition to traditional working fields of natural hazard research the monitoring mapping of risk as well as the evaluation of mitigation measures are core tasks of the department.
What is the partner's role and responsibility in the project?	BFW role is to bring in its experiences in AT forest protection assessment (WP1,2,4) & mapping (WP3 LP), to co-develop an educational program for decision/policy makers (WP5), to participate to the implementation of the project's communications actions
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	The BFW and especially the Department of Natural Hazards is a regular partner or subcontractor in numerous EU co-financed and international projects: CLISP, PARAMOUNT, NEWFOR, TRANSSAFEALP, ORIENTGATE or CC-WATERS.

Project partner 13

Partner role in the project	PP
Name of the organisation in original language	Bundesministerium für Land und Forstwirtschaft, Umwelt und Wasserwirtschaft
Name of the organisation in English	Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management
Abbreviation of the organisation	BMLFUW
Department/unit/division in English	Forest Department (FD) section III/4
Country (NUTS 0)	AT, ÖSTERREICH
Region (NUTS 2)	AT13, Wien
Sub-region (NUTS 3)	AT130, Wien
Postcode and City	1030 Vienna
Street	Marxergasse 2
Homepage	https://www.bmlfuw.gv.at/
Type of partner	national public authority
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	ATU 37632905
Entitled to recover VAT?	no
Other national identifying number	
Type of identifying number	
Legal representative firstname	Gerhard
Legal representative lastname	Mannsberger
Legal representative email	gerhard.mannsberger@bmlfuw.gv.at
Legal representative telephone	+43 1 711007301
Contact person firstname	Hubert
Contact person lastname	Siegel
Contact person email	hubert.siegel@bmlfuw.gv.at
Contact Person Telephone	+43 1 711007204
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	Forest Department (FD) lines out the national forest policy and is responsible for protection against natural hazard related issues. Forest Department especially approves the districts natural hazard commitments within the hazard maps and coordinates protection projects including forest management. Due to rules of forest law, FD is also responsible for the declaration of protective forests within the National Forest Development Plan. The protective function contains beside avalanche, mud stream, floods and erosion also the protection against rock fall. To line out the needs of proper protection forest management the FD covers the entire federal states area with adequate forest management plans.
What is the partner's role and responsibility in the project?	FD undertakes the lead for WP3 built on broad experiences on mapping of protective forests & their management. FD contributes to harmonize parameters (WP1,2), fosters the implementation of the developed guidelines & promotes the results (WP5,com).
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	FD has a broad experience on managing and leading studies and projects within the AS, e.g. DIS-ALP(LP, Disaster Documentation), NAB, CLIMCHALP(Climate-change impacts), CLISP (Climate Change Adaption), Paramount (LP, imProved Accessibility), TranSafe-Alp

Project partner 14

Partner role in the project	PP
Name of the organisation in original language	Bayerische Landesanstalt für Wald und Forstwirtschaft
Name of the organisation in English	Bavarian State Institute of Forestry
Abbreviation of the organisation	LWF
Department/unit/division in English	Department of silviculture and mountain forest
Country (NUTS 0)	DE, DEUTSCHLAND
Region (NUTS 2)	DE21, Oberbayern
Sub-region (NUTS 3)	DE21B, Freising
Postcode and City	85354 Freising
Street	Hans-Carl-von Carlowitz-Platz 1
Homepage	www.lwf.bayern.de/
Type of partner	higher education and research
Legal status	public
Co-financing source	ERDF
Co-financing rate (%)	85.00
VAT number	DE811335517
Entitled to recover VAT?	no
Other national identifying number	
Type of identifying number	
Legal representative firstname	Olaf
Legal representative lastname	Schmidt
Legal representative email	Olaf.Schmidt@lwf.bayern.de
Legal representative telephone	0049 (0) 8161714880
Contact person firstname	Franz
Contact person lastname	Binder
Contact person email	Franz.Binder@lwf.bayern.de
Contact Person Telephone	0049 (0) 8161714566
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	LWF is a special authority of the Bavarian Ministry of Food, Agriculture and Forestry. Its main business is applied research in the field of sustainable management of forest ecosystems services. One of its missions is the assessment of all the protection functions of mountain forests. It has mapped forests which protect the living space in the Bavarian Alps by mobilizing its competences in modelling/GIS and databases. LWF is a member of regional, national, international working groups dealing with these topics. It's involved in improvement/publication of silvicultural guidelines for the management of protection forests. LWF advises forest owners/practitioners/ policy makers about optimal structures of rockfall protection forests.
What is the partner's role and responsibility in the project?	LWF is in charge of G field surveys, operational deployment of the mapping in the G AS, validation by comparison to the current Bavarian map, economical comparison biobased/technical solutions, achievement of the guidelines, communication activities in DE
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	LWF has participated to several INTERREG Projects among others : NMF, NAB, WINALP, MANFRED, NEWFOR (WP Leader).

Project partner 15

Partner role in the project	PP
Name of the organisation in original language	Berner Fachhochschule / HAFL
Name of the organisation in English	Bern University of Applied Sciences / HAFL
Abbreviation of the organisation	BFH - HAFL
Department/unit/division in English	Department of Forest Sciences
Country (NUTS 0)	CH, SCHWEIZ/SUISSE/SVIZZERA
Region (NUTS 2)	CH02, Espace Mittelland
Sub-region (NUTS 3)	CH021, Bern
Postcode and City	3052 Zollikofen
Street	Länggasse 85
Homepage	https://www.hafl.bfh.ch/
Type of partner	higher education and research
Legal status	public
Co-financing source	Non-ERDF
Co-financing rate (%)	0.00
VAT number	CHE-319.685.045
Entitled to recover VAT?	no
Other national identifying number	
Type of identifying number	
Legal representative firstname	Magdalena
Legal representative lastname	Schindler Stokar
Legal representative email	magdalena.schindler@bfh.ch
Legal representative telephone	+41 31 9102169
Contact person firstname	Luuk
Contact person lastname	Dorren
Contact person email	luuk.dorren@bfh.ch
Contact Person Telephone	+41 31 9102987
Which are the partner's thematic competences and experiences relevant for the project? What are the institutional role and policy addressing capacity of the partners?	The relevant thematic experience of the BFH/ HAFL is the quantification of the protective effect of forests against rockfall and landslides. Our applied research activities focus on: - developing and integrating algorithms on the energy loss of falling rocks during impacts on trees and on the ground in 1D, 2D and 3D models for the simulation of rockfall runout zones. - forest structure and tree species characterization using remote sensing data - development of methodologies for integrating the protective role of forest in risk analyses. In addition, we have gained experience in natural hazard risk management in the daily practice and in the development of technical guidelines for protection forest management.
What is the partner's role and responsibility in the project?	BFH will provide the required data for CH, compare the project simulated maps with the existing CH ones, express the forest protective role in an index, participate to the economic evaluation of protection forest, manage communication activities in CH
If applicable, describe the organisation's experience in participating in and/or managing EU co-financed projects or other international projects.	LIEN (SNF-ANR, rockfall protection forests and invasive species) Start-it-Up (AS, State-of-the-Art in Risk Management) MANFRED (AS, adaptive forest management and CC) PROALP (JRC, protection forest mapping using national inventory data)

B.2 Observers

Observer 1

Partner role in the project	OBS
Name of the organisation in original language	Ministère de l'écologie, du développement durable et de l'énergie (MEDDE) Direction Générale de la Prévention des Risques Service des Risques Naturels et Hydrauliques
Name of the organisation in English	Ministry of Ecology, Energy, Sustainable Development and Territorial Development General Directorate for Risk Prevention Service of natural and water-related risks
Associated to partner	National research institute of science and technology for environment and agriculture, Grenoble regional centre
NUTS 0	FR, FRANCE
NUTS 2	FR10, Île de France
NUTS 3	FR101, Paris
Postcode and City	92800 PUTEAUX
Street	Tour Sequoia - place Carpeaux 1
Legal representative firstname	Vincent
Legal representative lastname	COURTRAY
Legal representative email	vincent.courtray@developpement-durable.gouv.fr
Legal representative telephone	+33 140 81 89 06
Contact person firstname	Vincent
Contact person lastname	COURTRAY
Contact person email	vincent.courtray@developpement-durable.gouv.fr
Contact person telephone	+33 140 81 89 06
Please describe why the observer institution is interested in the project.	To improve the current know-hows of the authorities in charge of risk prevention in France. To intent a greater awareness of populations with preventive information.
What is the benefit for the organisation from participating in the project?	To bring up the needs of decision/policy makers for improving the current know-hows. The maps will be integrated into the F national webgis. No such maps currently exist in F. Diffusion of the project results in the risk expert network of the Ministry.

Observer 2

Partner role in the project	OBS
Name of the organisation in original language	Ministère de l'Agriculture, de l'Agro-alimentaire et de la Forêt Direction générale de la performance économique et environnementale des entreprises Sous-direction des filières Forêt-Bois, Cheval et Bio-économie
Name of the organisation in English	French Ministry of Agriculture, Agri-Food and Forest Directorate-General for economic and environmental enterprises performance Sub-Directorate of Forest Wood chains, Horse and Bio-economy
Associated to partner	National research institute of science and technology for environment and agriculture, Grenoble regional centre
NUTS 0	FR, FRANCE
NUTS 2	FR10, Île de France
NUTS 3	FR101, Paris
Postcode and City	75732 Paris
Street	avenue du Maine 19
Legal representative firstname	Nathalie
Legal representative lastname	BARBE
Legal representative email	nathalie.barbe@agriculture.gouv.fr
Legal representative telephone	+ 33 (0)1 49 55 41 94
Contact person firstname	Nathalie
Contact person lastname	BARBE
Contact person email	nathalie.barbe@agriculture.gouv.fr
Contact person telephone	+ 33 (0)1 49 55 41 94
Please describe why the observer institution is interested in the project.	Development of new tools/ data for improving the forest ecosystems services in risk prevention policy in F. To enhance the financial support of the European Agricultural Fund for Rural Development to forestry actions for the prevention of natural risks.
What is the benefit for the organisation from participating in the project?	To disseminate the project's French regional protection forest maps to the decentralized State services in charge of protection forest policy/management. To test the uses of these maps in the French policy of EAFDR funds allocation.

Observer 3

Partner role in the project	OBS
Name of the organisation in original language	Direction Départementale des Territoires de la Savoie (DDT73) Service Sécurité et risques
Name of the organisation in English	Departmental Department of the Territories of Savoy (DDT73) Service Security and Risk
Associated to partner	French Geological Survey
NUTS 0	FR, FRANCE
NUTS 2	FR71, Rhône-Alpes
NUTS 3	FR717, Savoie
Postcode and City	73011 Chambéry le Haut
Street	Rue des Cévennes 1
Legal representative firstname	Jean-Pierre
Legal representative lastname	LESTOILLE
Legal representative email	jean-pierre.lestoille@savoie.gouv.fr
Legal representative telephone	+33 4 79 71 73 73
Contact person firstname	Philippe
Contact person lastname	QUEMART
Contact person email	philippe.quemart@savoie.gouv.fr
Contact person telephone	+33 479 71 72 72
Please describe why the observer institution is interested in the project.	Interest in the WP1 (ROCK-EU : harmonization of AS rockfall propagation model) and WP3 (1st rockfall protection forest AS harmonized mapping). Currently no such model and map are available in France.
What is the benefit for the organisation from participating in the project?	For natural hazards, DDT73 is in charge of the knowledge of hazard & risk in order to plan prevention action as mapping. Its benefits are the integration of the stakeholder point of view/needs in the developed methods and results provided and the maps.

Observer 4

Partner role in the project	OBS
Name of the organisation in original language	Direction régionale de l'Environnement, de l'Aménagement et du Logement (DREAL) Rhône Alpes Service Prévention des risques DREAL RHÔNE-ALPES
Name of the organisation in English	Regional Department of Environment, Land-planning and Housing of Rhône-Alpes Region
Associated to partner	French Geological Survey
NUTS 0	FR, FRANCE
NUTS 2	FR71, Rhône-Alpes
NUTS 3	FR716, Rhône
Postcode and City	69453 Lyon
Street	Place Jules ferry 5
Legal representative firstname	Françoise
Legal representative lastname	NOARS
Legal representative email	Françoise.NOARS@developpement-durable.gouv.fr
Legal representative telephone	+33 4 26 28 64 23
Contact person firstname	Nathalie
Contact person lastname	NEYRET
Contact person email	Nathalie-Marie.NEYRET@developpement-durable.gouv.fr
Contact person telephone	+33 426 28 67 31
Please describe why the observer institution is interested in the project.	Interested in the results of the WP5 : Guidelines and the WEBGIS.
What is the benefit for the organisation from participating in the project?	For natural hazards, DREAL Rhône-Alpes is responsible of the declining at the regional level of the national policy of prevention. Its participation is focused on the relation of guidelines provided by the project and the national policy.

Observer 5

Partner role in the project	OBS
Name of the organisation in original language	Ministrstvo za okolje in prostor – Agencija RS za okolje
Name of the organisation in English	Ministry of the environment and spatial planning - Slovenian Environment Agency
Associated to partner	Slovenian Forestry Institute
NUTS 0	SI, SLOVENIJA
NUTS 2	SI02, Zahodna Slovenija
NUTS 3	SI021, Osrednjeslovenska
Postcode and City	1000 Ljubljana
Street	Dunajska 47
Legal representative firstname	Joško
Legal representative lastname	Knez
Legal representative email	josko.knez@gov.si
Legal representative telephone	0038614787400
Contact person firstname	Polona
Contact person lastname	Zupančič
Contact person email	polona.zupancis@gov.si
Contact person telephone	0038614787255
Please describe why the observer institution is interested in the project.	Implementation of project results in the general guidelines and principles of urban planning in Slovenia's strategic documents (i.e; Spatial Development Strategy of Slovenia, the Spatial Order of Slovenia and the National Housing Program).
What is the benefit for the organisation from participating in the project?	Communication with the SI PPs, discussing the applicability of project results, participating at SI working events and at the final international conference. Identification of endangered areas from the access to the maps/database.

Observer 6

Partner role in the project	OBS
Name of the organisation in original language	Uprava Republike Slovenije za zaščito in reševanje / Ministrstvo za obrambo
Name of the organisation in English	Administration of the Republic of Slovenia for Civil Protection and Disaster Relief / Ministry of Defence
Associated to partner	University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources
NUTS 0	SI, SLOVENIJA
NUTS 2	SI02, Zahodna Slovenija
NUTS 3	SI021, Osrednjeslovenska
Postcode and City	1000 Ljubljana
Street	Vojkova 61
Legal representative firstname	Darko
Legal representative lastname	But
Legal representative email	darko.but@urszr.si
Legal representative telephone	+386 (0)1 471 33 22
Contact person firstname	Darko
Contact person lastname	But
Contact person email	darko.but@urszr.si
Contact person telephone	+386 (0)1 471 33 22
Please describe why the observer institution is interested in the project.	Implementation of project's "protection" map for entire SI/macrorregions (NUTS2)/statistical regions (NUTS3). Important project result, definition of the areas endangered by rockfall, give opportunities for better logistic organization.
What is the benefit for the organisation from participating in the project?	Identification of its operational needs in terms of global/local mapping & monitoring sites. Participation to the project meetings, working/communication events. Player of the project's results dissemination and promotion.

Observer 7

Partner role in the project	OBS
Name of the organisation in original language	Direkcija Republike Slovenije za infrastrukturo / Ministrstvo za Infrastrukturo
Name of the organisation in English	Slovenian Infrastructure Agency / Ministry of Infrastructure
Associated to partner	University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources
NUTS 0	SI, SLOVENIJA
NUTS 2	SI02, Zahodna Slovenija
NUTS 3	SI021, Osrednjeslovenska
Postcode and City	1000 Ljubljana
Street	Langusova ulica 4
Legal representative firstname	Damir
Legal representative lastname	Topolko
Legal representative email	damir.topolko@gov.si
Legal representative telephone	+386 1 478 80 02
Contact person firstname	Tomaz
Contact person lastname	Willenpart
Contact person email	tomaz.willenpart@gov.si
Contact person telephone	+386 1 478 80 02
Please describe why the observer institution is interested in the project.	Agency is responsible for the railway and road transport with the exception of control over road traffic safety. Rockfall protection map for entire SI (and NUTS2 / NUTS3), is necessary for mapping parts of railways / roads, endangered by rock fall.
What is the benefit for the organisation from participating in the project?	This ministry represents important target group/end-user of project outputs (maps, developed models, innovative methodology). Its experts will participate in the model/maps evaluation/improvement. The maps/ models will be transferred to this ministry.

Observer 8

Partner role in the project	OBS
Name of the organisation in original language	LOCUS prostorske informacijske rešitve d.o.o.
Name of the organisation in English	LOCUS Spatial Information Solutions
Associated to partner	Slovenian Forestry Institute
NUTS 0	SI, SLOVENIJA
NUTS 2	SI02, Zahodna Slovenija
NUTS 3	SI021, Osrednjeslovenska
Postcode and City	1230 Domžale
Street	Ljubljanska cesta 76
Legal representative firstname	Leon
Legal representative lastname	Kobetič
Legal representative email	leon.kobetic@locus.si
Legal representative telephone	0038617219390
Contact person firstname	Nuša
Contact person lastname	Britovšek
Contact person email	nusa.britovsek@locus.si
Contact person telephone	0038617219390
Please describe why the observer institution is interested in the project.	The project's map will be used as one of the GIS layers in future spatial plans. The results will be used within preparation of sectoral/integrated territorial development strategies, state/municipal spatial plans at the strategic/implementation level
What is the benefit for the organisation from participating in the project?	Communication with the SI PPs, discussing the applicability of the project's results, participating at SI working events and at the final Slovenian language conference.

Observer 9

Partner role in the project	OBS
Name of the organisation in original language	Ministrstvo za kmetijstvo, gozdarstvo in prehrano
Name of the organisation in English	Ministry of agriculture, forestry and food
Associated to partner	Slovenian Forest Service
NUTS 0	SI, SLOVENIJA
NUTS 2	SI02, Zahodna Slovenija
NUTS 3	SI021, Osrednjeslovenska
Postcode and City	1000 Ljubljana
Street	Dunajska 22
Legal representative firstname	Miha
Legal representative lastname	Marenče
Legal representative email	gp.mkgp@gov.si
Legal representative telephone	+386 1 478 90 00
Contact person firstname	Janez
Contact person lastname	Zafran
Contact person email	janez.zafran@gov.si
Contact person telephone	+386 1 478 90 85
Please describe why the observer institution is interested in the project.	Ministry conducts proceedings for forest management plans, and as such is interested to provide natural risks management as part of public safety. It has capacities to integrate project results to national policy & strategy.
What is the benefit for the organisation from participating in the project?	As management body it is strongly committed to engage itself in project activities, especially in forest/land planning, formalizing its requested/needs as inputs for the project, and capitalizing at the national level the project's outputs.

Observer 10

Partner role in the project	OBS
Name of the organisation in original language	Regione Veneto - Sezione Parchi biodiversità programmazione silvopastorale e tutela dei consumatori - Servizio Pianificazione e Ricerca Forestale
Name of the organisation in English	Veneto Region - Parks, biodiversity, and forest management sector
Associated to partner	University of Padova
NUTS 0	IT, ITALIA
NUTS 2	ITH3, Veneto
NUTS 3	ITH36, Padova
Postcode and City	30172 Mestre
Street	Palazzo ex Gazzettino, Via Torino 110
Legal representative firstname	Mauro
Legal representative lastname	Viti
Legal representative email	maurogiovanni.viti@regione.veneto.it
Legal representative telephone	+39 0412795660
Contact person firstname	Isabella
Contact person lastname	Pasutto
Contact person email	Isabella.Pasutto@regione.veneto.it
Contact person telephone	+39 041 2795467/78
Please describe why the observer institution is interested in the project.	Since the region is in charge of forest management and planning, providing guidelines and defining rules for the forest ownership (both public and private), the administration is highly interested in the definition of protection forests.
What is the benefit for the organisation from participating in the project?	The Veneto Region will provide feedback on the project products, advice for test sites, & expert knowledge on rockfall activities in forested area of the region. An active participation to the meeting and workshop is guaranteed. Access to the project maps

Observer 11

Partner role in the project	OBS
Name of the organisation in original language	Regione Autonoma della Valle d'Aosta - Forestazione e sentieristica
Name of the organisation in English	Autonomous Region of Aosta Valley- Forest sector
Associated to partner	University of Padova
NUTS 0	IT, ITALIA
NUTS 2	ITC2, Valle d'Aosta/Vallée d'Aoste
NUTS 3	ITC20, Valle d'Aosta/Vallée d'Aoste
Postcode and City	11020 Quart
Street	Loc. Amerique 127/A
Legal representative firstname	Luigi
Legal representative lastname	Bianchetti
Legal representative email	l.bianchetti@regione.vda.it
Legal representative telephone	+ 39 0165 776319
Contact person firstname	Luca
Contact person lastname	Dovigo
Contact person email	l.dovigo@regione.vda.it
Contact person telephone	+ 39 0165 776231
Please describe why the observer institution is interested in the project.	Since the region is in charge of forest management and planning, and the protection forests are estimated to be the 40% of the overall forest cover, the administration is highly interested in the definition of protection forests.
What is the benefit for the organisation from participating in the project?	The Aosta Valley Region will provide knowledge and expertise coming from past interreg project on protection forest, providing rockfall site and feedback on the project results. It will have access to the project maps/database.

Observer 12

Partner role in the project	OBS
Name of the organisation in original language	IPLA - Istituto per le piante da legno e per l'ambiente SpA
Name of the organisation in English	IPLA - Institute for Wood Plants and Environment
Associated to partner	Department of Agricultural, Forest and Food Sciences, University of Turin
NUTS 0	IT, ITALIA
NUTS 2	ITC1, Piemonte
NUTS 3	ITC11, Torino
Postcode and City	10100 Torino
Street	C.so Casale 476
Legal representative firstname	Igor
Legal representative lastname	Boni
Legal representative email	amministratore.unico@ipla.org
Legal representative telephone	+39.011.432.04.59
Contact person firstname	Franco
Contact person lastname	Gottero
Contact person email	gottero@ipla.org
Contact person telephone	+39.011.432.04.16
Please describe why the observer institution is interested in the project.	IPLA is currently actively working in Piedmont and in Aosta Valley in the mapping, silvicultural planning and silvicultural tending in forests that have a protective role.
What is the benefit for the organisation from participating in the project?	IPLA has an important role both in dissemination/capitalization of the scientific/technical results & in increasing awareness on the role of protective forests in environmental policy. It will so directly benefit of the project dissemination strategy.

Observer 13

Partner role in the project	OBS
Name of the organisation in original language	REGIONE LOMBARDIA: DIREZIONE GENERALE SICUREZZA PROTEZIONE CIVILE IMMIGRAZIONE - U.O. Sistema Integrato di Prevenzione DIREZIONE GENERALE AGRICOLTURA - Struttura Sviluppo e Gestione Forestale DIREZIONE GENERALE TERRITORIO URBANISTICA E DIFESA DEL SUOLO
Name of the organisation in English	LOMBARDY REGION: - GENERAL DIRECTORATE FOR CIVIL PROTECTION SECURITY AND IMMIGRATION - UNIT INTEGRATED PREVENTION SYSTEM - GENERAL DIRECTORATE AGRICULTURE - GENERAL DIRECTORATE TERRITORY URBANISM AND SOIL PROTECTION
Associated to partner	Regional Agency for Services in Agriculture and Forest - Lombardia Region
NUTS 0	IT, ITALIA
NUTS 2	ITC4, Lombardia
NUTS 3	ITC4C, Milano
Postcode and City	20124 Milano
Street	Palazzo Lombardia Piazza Città di Lombardia 1
Legal representative firstname	Cinzia
Legal representative lastname	Secchi
Legal representative email	cinzia_secchi@regione.lombardia.it
Legal representative telephone	(+39) 02 6765 3489
Contact person firstname	Massimo
Contact person lastname	Ceriani
Contact person email	massimo_ceriani@regione.lombardia.it
Contact person telephone	(+39) 02 6765 5209
Please describe why the observer institution is interested in the project.	Implementation of Rockfall Map, Inventory of landslides, geo&hydrogeologic hazard Map, Integrated Risk Mitigation Program, Territorial Plan, Forest Maps. Use results to allocate funds in protection forests, new addresses for local planning PGT
What is the benefit for the organisation from participating in the project?	Direct the application of the adopted methodologies transfer the outputs and outcomes to Regional policies on risk management, mitigation, forest management and planning, territorial and landscape planning

Observer 14

Partner role in the project	OBS
Name of the organisation in original language	CFAVS – Consorzio Forestale Alta Valle di Susa
Name of the organisation in English	High valley of Susa Forest Consortium
Associated to partner	Department of Agricultural, Forest and Food Sciences, University of Turin
NUTS 0	IT, ITALIA
NUTS 2	ITC1, Piemonte
NUTS 3	ITC11, Torino
Postcode and City	10056 Oulx
Street	Via Pellousiere 6
Legal representative firstname	Alberto
Legal representative lastname	Dotta
Legal representative email	cf.av@tin.it
Legal representative telephone	+39 0122 831 079
Contact person firstname	Alberto
Contact person lastname	Dotta
Contact person email	cf.av@tin.it
Contact person telephone	+39 0122 831 079
Please describe why the observer institution is interested in the project.	CFAVS is concerned with the sustainable management of the silvo-pastoral resources of 14 municipalities. Due to the economic/social importance of the tourism&viability, CFAVS is looking for tools to enhance the risks mitigation forest ecosystems service.
What is the benefit for the organisation from participating in the project?	CFAVS will give inputs to the project's consortium for improving the development of efficient & operationally usable models & methodologies. It will participate to the case study selection/implementation in the Suza Valley. Access to all project results.

Observer 15

Partner role in the project	OBS
Name of the organisation in original language	Direzione Opere pubbliche, Difesa del suolo, Montagna, Foreste, Protezione civile, Trasporti e Logistica, Regione Piemonte
Name of the organisation in English	Direction of Public Works, Land protection, Mountain, Forests, Civil Protection, Transport and Logistics, Regione Piemonte
Associated to partner	Politecnico di Torino
NUTS 0	IT, ITALIA
NUTS 2	ITC1, Piemonte
NUTS 3	ITC11, Torino
Postcode and City	10128 Torino
Street	C.so Stati Uniti 21
Legal representative firstname	Franco
Legal representative lastname	Licini
Legal representative email	foreste@regione.piemonte.it
Legal representative telephone	+39 011-432.1223
Contact person firstname	Franca
Contact person lastname	De Ferrari
Contact person email	franca.deferrari@regione.piemonte.it
Contact person telephone	+39 011-432.2965
Please describe why the observer institution is interested in the project.	REGIOPIEM sustains a multifunctional use of forests & the provision of different eco-services with special regard to the protective ones. It's interested in developing/applying effective/sustainable measures to enhance the mitigation forests service.
What is the benefit for the organisation from participating in the project?	REGIOPIEM is primarily concerned with the definition/development of the forest policy at the regional level. It will share its requirements for improving the current forest regional policy & its requests in term of protection forest mapping.

Observer 16

Partner role in the project	OBS
Name of the organisation in original language	Amt für Ernährung, Landwirtschaft und Forsten Traunstein
Name of the organisation in English	Department of food. agriculture and forestry Traunstein
Associated to partner	Bavarian State Institute of Forestry
NUTS 0	DE, DEUTSCHLAND
NUTS 2	DE21, Oberbayern
NUTS 3	DE21B, Freising
Postcode and City	83278 Traunstein
Street	Schnepfenluckstraße 10
Legal representative firstname	Alfons
Legal representative lastname	Leitenbacher
Legal representative email	poststelle@aelf-ts.bayern.de
Legal representative telephone	+49 0861 7098 0
Contact person firstname	Alfons
Contact person lastname	Leitenbacher
Contact person email	poststelle@aelf-ts.bayern.de
Contact person telephone	+49 0861 7098 0
Please describe why the observer institution is interested in the project.	To advise, qualify/inform communities, agricultural enterprises/forest private owners, using the project's results on rockfalls protection forest management. To broaden its knowledge about protection forest management with the project's consortium.
What is the benefit for the organisation from participating in the project?	We want to share our practical experiences with institutes of forest research. We will join as observer the project and want to judge the results for the practice. We will take part at the German projects working events/conference.

Observer 17

Partner role in the project	OBS
Name of the organisation in original language	BAYERISCHE STAATSFORSTEN, Forstbetrieb Berchtesgaden
Name of the organisation in English	Forestry Berchtesgaden
Associated to partner	Bavarian State Institute of Forestry
NUTS 0	DE, DEUTSCHLAND
NUTS 2	DE21, Oberbayern
NUTS 3	DE215, Berchtesgadener Land
Postcode and City	83471 Berchtesgaden
Street	Am Brandholz 2 1/2
Legal representative firstname	Daniel
Legal representative lastname	Müller
Legal representative email	info-berchtesgaden@baysf.de
Legal representative telephone	+49 (8652) 9589-0
Contact person firstname	Daniel
Contact person lastname	Müller
Contact person email	info-berchtesgaden@baysf.de
Contact person telephone	+49 (8652) 9589-0
Please describe why the observer institution is interested in the project.	This forest enterprise manages the state forest in the county of Berchtesgadener . It wants to use the protection forest maps and the economical evaluation tools for improving the protection forest management in its county.
What is the benefit for the organisation from participating in the project?	The main benefit is to have access to innovative & efficient models/toolbox/GIS maps for sustainably managed rockfall mitigation forest ecosystem services. By sharing its practical experiences it will participate to the project results improvement.

Observer 18

Partner role in the project	OBS
Name of the organisation in original language	Bayerischer Forstverein
Name of the organisation in English	Bavarian Forestry Association
Associated to partner	Bavarian State Institute of Forestry
NUTS 0	DE, DEUTSCHLAND
NUTS 2	DE22, Niederbayern
NUTS 3	DE22B, Straubing-Bogen
Postcode and City	94405 Wildthurn
Street	Ritter-Waller 16
Legal representative firstname	Gudula
Legal representative lastname	Lermer
Legal representative email	lermer@forstverein.de
Legal representative telephone	0049 (0)8583-6086612
Contact person firstname	Gudula
Contact person lastname	Lermer
Contact person email	lermer@forstverein.de
Contact person telephone	0049 (0)8583-6086612
Please describe why the observer institution is interested in the project.	This association represent forest owners from state, private & corporate forest. It is interested in the non-tangible value of rockfall protection forest & wants to support its members to use the project models for improving their knowledge.
What is the benefit for the organisation from participating in the project?	It will join the project as observer for evaluating the project results by its members. It will take part at the German & Austrian projects working events/conference. The relevant project GIS layers results for this association will be transferred to it.

Observer 19

Partner role in the project	OBS
Name of the organisation in original language	Geologische Stelle des Forsttechnischen Dienstes für Wildbach- und Lawinenverbauung
Name of the organisation in English	Geological Office of the Torrent and Avalanche Control Service
Associated to partner	Federal Research and Training Centre for Forests, Natural Hazards and Landscape
NUTS 0	AT, ÖSTERREICH
NUTS 2	AT33, Tirol
NUTS 3	AT332, Innsbruck
Postcode and City	6020 Innsbruck
Street	Liebeneggstraße 11
Legal representative firstname	Michael
Legal representative lastname	Mölk
Legal representative email	geologie@die-wildbach.at
Legal representative telephone	(+43 512) 58 42 00 - 38
Contact person firstname	Michael
Contact person lastname	Mölk
Contact person email	geologie@die-wildbach.at
Contact person telephone	(+43 512) 58 42 00 - 38
Please describe why the observer institution is interested in the project.	The GO has a wide experience in the field of geotechnical risks & is responsible for protection against geomorphological & geotechnical risks. The GO is highly interested in standardizing of measures & assessments against these risks.
What is the benefit for the organisation from participating in the project?	The GO will be involved in the development of guidelines/best practice guidelines for improving the management of rockfall risks. It offers access to its database on past geological risk events. It will have access to project maps relevant for it.

Observer 20

Partner role in the project	OBS
Name of the organisation in original language	Bundesamt für Umwelt BAFU
Name of the organisation in English	Federal Office for the Environment FOEN
Associated to partner	Bern University of Applied Sciences / HAFL
NUTS 0	CH, SCHWEIZ/SUISSE/SVIZZERA
NUTS 2	CH02, Espace Mittelland
NUTS 3	CH021, Bern
Postcode and City	3063 Ittigen
Street	Worblentalstrasse 68
Legal representative firstname	Hans-Peter
Legal representative lastname	Willi
Legal representative email	hans-peter.willi@bafu.admin.ch
Legal representative telephone	+41 58 464 17 39
Contact person firstname	Arthur
Contact person lastname	Sandri
Contact person email	arthur.sandri@bafu.admin.ch
Contact person telephone	+41 58 465 51 70
Please describe why the observer institution is interested in the project.	The FOEN is interested to compare the outcomes of the project methodology to map rockfall protection forests with the existing ones in Switzerland. Secondly, the FOEN is interested in comparing the definition of damage potential with the one used in CH.
What is the benefit for the organisation from participating in the project?	FOEN will provide the existing rockfall protection forest/the used damage potential maps in CH, in digital form to the BFH-HAFL. FOEN will participate directly in project discussion/meetings. Its main benefits will be the improvement of its maps/methods.

Observer 21

Partner role in the project	OBS
Name of the organisation in original language	Segretariato permanente della Convenzione delle Alpi – Ständiges Sekretariat der Alpenkonvention – Secrétariat Permanent de la Convention Alpine – Stalni sekretariat alpske konvencije
Name of the organisation in English	Permanent Secretariat of the Alpine Convention
Associated to partner	AUTONOMOUS PROVINCE OF TRENTO – FOREST AND WILDLIFE DEPARTMENT
NUTS 0	AT, ÖSTERREICH
NUTS 2	AT33, Tirol
NUTS 3	AT332, Innsbruck
Postcode and City	6020 Innsbruck
Street	Herzog-Friedrich-Straße, 15
Legal representative firstname	Markus
Legal representative lastname	Reiterer
Legal representative email	markus.reiterer@alpconv.org
Legal representative telephone	+43-512-588589-16
Contact person firstname	Giulia
Contact person lastname	Gaggia
Contact person email	Giulia.gaggia@alpconv.org
Contact person telephone	+39-0471-055352
Please describe why the observer institution is interested in the project.	The first AS mapping of rockfall protection forests is an important step in the management of forest function and ecosystem services. The AC has a Mountain Forests WG, that is collecting information and good practises on the topic.
What is the benefit for the organisation from participating in the project?	Participating to the assessment of intermediate and final results; contributing to conceptualization of policies and management of protection forests. Helping in contacting AS regions able to provide data for the map of rockfall protection forests.

Observer 22

Partner role in the project	OBS
Name of the organisation in original language	AUTONOME PROVINZ BOZEN – SÜDTIROL PROVINCIA AUTONOMA DI BOLZANO – ALTO ADIGE Abteilung Forstwirtschaft - Ripartizione Foreste Amt für Forstplanung - Ufficio Pianificazione forestale
Name of the organisation in English	Autonomous Province of Bolzano - Forest Department – Office for forest planning
Associated to partner	AUTONOMOUS PROVINCE OF TRENTO – FOREST AND WILDLIFE DEPARTMENT
NUTS 0	IT, ITALIA
NUTS 2	ITH1, Provincia Autonoma di Bolzano/Bozen
NUTS 3	ITH10, Bolzano-Bozen
Postcode and City	39100 Bolzano
Street	Palazzo 6, via Brennero 6
Legal representative firstname	Arno
Legal representative lastname	Kompatscher
Legal representative email	arno.kompatscher@consiglio-bz.org
Legal representative telephone	+33 0471 412 222
Contact person firstname	Günther
Contact person lastname	Unterthiner,
Contact person email	Guenther.Unterthiner@provinz.bz.it,
Contact person telephone	+39 0471 415340
Please describe why the observer institution is interested in the project.	Exchanging knowledge and experiences in protection forest mapping and managing; entering in the first AS mapping of rockfall protection forests.
What is the benefit for the organisation from participating in the project?	Presenting state of the art, discussing methodologies and exchanging know-how in selected meetings; providing existing data to be implemented in the AS map of rockfall protection forests.

Observer 23

Partner role in the project	OBS
Name of the organisation in original language	Fédération Nationale des COmmunes FORestières FNCOFOR
Name of the organisation in English	French National Federation of Forest Communitie FNCOFOR
Associated to partner	National research institute of science and technology for environment and agriculture, Grenoble regional centre
NUTS 0	FR, FRANCE
NUTS 2	FR10, Île de France
NUTS 3	FR101, Paris
Postcode and City	75007 Paris
Street	rue du Général Bertrand 13
Legal representative firstname	Alain
Legal representative lastname	Lesturgez
Legal representative email	alain.lesturgez@communesforestieres.org
Legal representative telephone	+33 (0)1 45 67 47 98
Contact person firstname	Rémy
Contact person lastname	Fagot
Contact person email	remy.fagot@communesforestieres.org,
Contact person telephone	+33 (0)1.45.67.47.96
Please describe why the observer institution is interested in the project.	Currently the French Timber Supply Territorial Plan (elaborate by FNCOFOR) doesn't take into account the forest protective function. Doing so needs to have accurate/reliable protection forest mapping with the same methodology & for the entire French AS.
What is the benefit for the organisation from participating in the project?	Improvement of FES multi-functional management by integrating the rockfall protective service in the F Timber Supply Territorial Plan. Dissemination of the project maps to its members/partners for increasing the awareness of the importance of this service

Observer 24

Partner role in the project	OBS
Name of the organisation in original language	Norges Geotekniske Institutt (NGI)
Name of the organisation in English	Norwegian Geotechnical Institute (NGI)
Associated to partner	National research institute of science and technology for environment and agriculture, Grenoble regional centre
NUTS 0	NO, NORGE
NUTS 2	NO01, Oslo og Akershus
NUTS 3	NO011, Oslo
Postcode and City	0855 Oslo
Street	Sognsveien 72
Legal representative firstname	Kjell
Legal representative lastname	Hauge
Legal representative email	kjell.hauge@ngi.no
Legal representative telephone	+47 934 49 533
Contact person firstname	Ulrik
Contact person lastname	Domaas
Contact person email	ulrik.domaas@ngi.no
Contact person telephone	+47 924 47 442
Please describe why the observer institution is interested in the project.	The NGI is a leading international center for research/ consulting in natural risks & their interaction with the environment. The results of the project are of highest interest for it because one of its task is to develop some models & mapping for Norway.
What is the benefit for the organisation from participating in the project?	NGI will carefully monitor the work of the project consortium with respect to the results reliability/transferability for NO practice oriented processing. It will use the project models for improving the NO rockfall risk mapping/prevention policy.

PART C - Project description

C.1 Project relevance

What are the common territorial challenges and/or joint assets that will be tackled by the project?

Forest covers about 40% of the Alpine Space. According to the topographical, geological and climatic conditions, forest ecosystems play a key role in protecting the viability & liveability of the AS. The relevant stakeholders are aware of this protection role. All the Pan European Ministerial Conferences on the Protection of Forest have encouraged the survey of forest with an active protective role and stressed on the need of harmonised indicators. For developing an AS sustainable risk mitigation strategy/policy, and for efficiently mobilizing the necessary funds for preserving/optimizing this forest ecosystems service, there are still critical needs in terms of a common definition of risk, protection forest/issues, harmonized methodology/indicators for mapping this service, harmonized tools/indicators for assessing the forest mitigation efficiency according to the specificities of each forest stand and forest cover.

What is the project's approach and why is transnational cooperation needed to address these common challenges and/or joint assets? What is innovative about the project's approach?

One of the major risks threatening AS viability/liveability is rockfall. In risk prevention/forest management, all regional/national authorities are sharing the same needs and challenges but there are still no joint transnational efforts for searching a common answer. Besides, the transnational cooperation enables the co-development of an harmonised solution by sharing knowledge, know-how, approaches & best practices in each of the AS countries. According to the policy needs, only a transnational cooperation can provide harmonised indicators & factual data on the distribution and importance of this risk in the AS. The challenge is to provide for the first time an AS harmonised rockfall risk & protection forest map including an evaluation of the efficacy of this ecosystem service. The project's approach is to 1) share knowledge/data, 2) develop an innovative common regional rockfall model considering forest effects, 3) produce maps, 4) transfer them in existing WEBGIS platforms.

C.2 Project focus

C.2.1 Project objectives, expected result and outputs

Programme priority specific objective

Programme priority specific objective	SO3.2 - Enhance the protection, the conservation and the ecological connectivity of Alpine Space ecosystems
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Project overall objective

What is the overall objective of the project? How does it contribute to the programme's objective?

The overall objective of the project is to reinforce & strengthen the implementation of rockfall risk prevention/mitigation strategy/policy support in line with a sustainable forest management approach. This objective directly draws upon the ASP's objectives: capitalization & up-scaling of existing solutions, promoting a common integrative approach for policies/decision making & planning processes, enhance the sustainable management of natural risks and natural resources.

Programme result

Select one programme result indicator your project will contribute to:

Level of integration of the ecosystem services approach in the policy systems of the Alpine Space

Project result(s)

What is/are the project's main result(s) and how do they contribute to the programme result indicator?

Operational: the 1st entire AS harmonized mapping of rockfall risk/protection forest, protection forest management integrative approach also to gravity natural risks (e.g. avalanche) Strategic: generating scenarios and their economic valuation for decision makers to improve territorial resilience facing with rockfall risk Policy: production of the first AS harmonized statistics on protection forest ecosystems service, recommendations for developing forest based rockfall prevention policy.

Project specific objectives

<i>Which are the specific objectives the project will be working towards? Define max. 3 project specific objectives.</i>	
Title of specific objective	Please provide a short explanation on the link with the project outputs
Developing the first AS harmonised regional rockfall risk model, based on the benchmarking of the current rockfall risk mapping methodologies	Currently different scales, input data, models are used among the AS. So there is a need for harmonization. The project outputs are built on the use of an harmonized model taking into account the variety of geological & topographic AS conditions.
Operational deployment at the entire AS scale of the rockfall risk and protection forest mapping innovative methodologies.	The developed methodologies for mapping rockfall risk and protection forests will be tested/validated in specific test sites and then applied to the entire AS. The maps will be provided at the NUTS2 and NUTS3 which are the governance scales.
Capitalization and transfer of the project results to decision and policy makers for valorisation & governance of AS forest for the rockfall protection service.	From the start of the project a specific Communication/dissemination Plan will be set up and applied. The maps will be available on WEBGIS platforms. Recommendations, including economic valuations, will be provided to decision and policy makers.

C.2.2 Project outputs

<i>What will be the outputs the project will produce?</i>
1. The first AS harmonized model for regional rockfall risk mapping. This model (multilingual) will be a freeware, available from the project's website. 2. The first AS harmonized rockfall protection forest efficiency assessment tools. This toolbox (multilingual) will be an online one, freely usable via the project's website. 3. A set of guidelines and recommendations dedicated to foresters, risk managers and decision/policy makers supported by a Territorial Information System using a WEBGIS platform for the online consultation of the detailed maps produced at NUTS3 (forest and risk management) and aggregated to NUTS2 level (governance and policy decision making). The maps will be produced for the whole AS.

C.2.3 Target groups

<i>Which are the direct target groups of the project?</i>
TG interested in maps, guidelines & toolbox: Local, regional & national public authorities, Sectoral agencies, SME, Infrastructure/public service providers, land owners, research/education/training institutions, international/EU organisations. These target groups are represented via the 24 observers of the project. The interest expressed by the observers is the main factor of the project values and durability. General public is interested in communication/awareness on protection forest role.

Target groups	Please further specify the target groups	Target value
local public authority	Municipalities via their spatial planning, environment, transportation, tourism and emergency department. Person targeted: mayors & heads of department	7.150,00
regional public authority	Region, canton, provinces, Länder. Person targeted: both administrative & political representatives from spatial planning, environment & forestry, risk & emergency, transportation departments & service, regional representative of EUSALP.	39,00
national public authority	Ministries in charge of forests, risk policies and international cooperation. Person targeted: head of forest, land planning, emergency and crisis management, risks prevention, European and international cooperation directorates.	17,00
sectoral agency	Rural development agency, environmental agency. Person targeted : responsables and technicians	54,00
infrastructure and (public) service provider	Road, Railway, forest services. Person targeted: head of risk and crisis management, forest management directorates	31,00
SME	Private consulting companies, private experts, data providers (forestry, remote sensing, civil engineering, environmental impact assessment, risk assessment, protection measures). Person targeted: responsible & technicians	58,00
International organisation under inter-national law	Alpine Convention, European Commission DG Environment, United Nations Environment Programme, FAO, EU Joint Research Centre of Ispra	4,00
higher education and research	Universities, engineer schools, research institution. Competences of the persons targeted: GIS, forestry, geology, land use planning, remote sensing. Person targeted : professors, assistants, PhD students, postdoc, students.	21,00
education/training centre and school	Primary, secondary and high schools. forest training center. Person targeted : teachers and students development, environmental agencies. person targeted : responsible and technicians .	12,00
General public	Inhabitants, tourists and other users of mountain territories	400.000,00
interest groups including NGOs	European Forest Institute, Interpraevent, International Union of Forest Research Organisations, French National Federation of Forest Communities, European Federation of Forest Communities, GWG, ROCEX, forester trade unions. Person targeted: responsible of mountain thematic	18,00

C.3 Project context

C.3.1 Project contribution to wider strategies and policies

<i>How does the project contribute to the wider strategies and policies?</i>
The project is mainly positioned in the second step of the policy cycle (Explorative/piloting activities). Following the conclusions of the 6 Pan European Ministerial Conferences on the Protection of Forest in Europe held since 1990 (need of a common approach to valuation of FES for developing a Sustainable Forest Management Strategy (2013: new framework in response to increasing demands put on forests and to significant societal/political changes), the Alpine Convention protocols, ROCKtheALPS contributes to the urgent needs of harmonising FES characterisation methodologies and updating the indicators for EU SFMS. ROCKtheALPS will also directly contribute to enhance action 5 of Europe 2020 biodiversity strategy (FES mapping/valuing).

C.3.2 Macro-regional strategy contribution

<i>Indicate how the project contributes to the EU Strategy for the Alpine Region (EUSALP).</i>
ROCKtheALPS will contribute to enhance action 8 of EUSALP (improving risk management). The project outputs will contribute to an adequate comprehensive risk assessment & to implement a disaster risk management policy. They answer to the needs of: use of more standard data/protocols for risk assessment through modeling, evaluating impacts, supporting adaptation. EUSALP could deploy the project mapping methodology in its 7 German lands not concerned by the ASP perimeter.

C.3.3 Synergies

What are the synergies with past or current EU and other projects or initiatives the project makes use of?

ROCKtheAlps will :

- 1) improve and harmonize the outputs of previous EU projects : e.g ROCKFOR (mechanical behaviours modelling of trees), PROVIALP (protection of the viability in the Alps), MASSA (rockfall zoning methodology/tools), PROALP (protection forest mapping methodologies), MANFRED (adaptive forest management strategies), STARTitUP (Risk Management Technology), PARAMOUNT (accessibility improvement of alpine transport infrastructure), IFP (protection forest management).
- 2) implement these previous knowledge for providing the first harmonised AS rockfall protection forest mapping.
- 3) test the transferability of the ROCKtheALPS and previous methodologies to other natural risks (e.g snow avalanches).

C.3.4 Knowledge

How does the project build on available knowledge?

ROCKtheALPS has been build on outputs/results and relevant good practices identified/ piloted within previous EU projects (Interreg AS/F-CH/F-It, EU FP) dealing with 1) the characterization/modelling of the mechanical behaviour of trees impacted by rocks, 2) the proposition of methods/ tools for rockfall risk/protection forest zoning, 3) the sharing and transfer of experience in producing national (e.g Switzerland,Norway) and regional (e.g Bavaria) risk mapping , 4) planning and management guidelines for rockfall and gravity natural risks protection forest, upgrading the current ones using the knowledge produced by ROCKtheALPS.

C.4 Horizontal principles

Horizontal principles	Description of the contribution	Type of contribution
Sustainable development (environment)	The project overall objective is to sustainably valorize rockfall protection forest ecosystems services (FES) in AS risk mitigation policy. By mapping this FES, the project contributes directly to the sustainable development of AS territories.	positive
Equal opportunity and non-discrimination	This horizontal principle is not relevant as a WP in the programme priority /specific objective in which ROCKtheALPS applies for funding. ROCKtheALPS complies with the current EU/national regulations of equal opportunity and non-discrimination.	neutral
Equality between men and women	This horizontal principle is not relevant as a WP in the programme priority /specific objective in which ROCKtheALPS applies for funding. ROCKtheALPS complies with the current EU/national regulations of equality between men and women.	neutral

C.5 Work plan per work packages

Type: Preparation

WP Nr	WP Title	WP start date	WP end date	WP Budget
P	Preparation	2016-02	2016-10	20.000,00
Partners Involvement				
<i>Summary description and objective of the work package</i>				
<ul style="list-style-type: none"> - Preparation and submission of the expression of interest (specific meeting In Innsbruck : 31st March 2016) - Preparation and submission of the application form and partnership agreement (specific meeting In Innsbruck :18-19th July 2016) 				

Type: Management

WP Nr	WP title	WP start date	WP end date	WP Budget
M	Management	2016-11	2019-10	363.055,80
Partners Involvement				
WP responsible partner		Institut national de recherche en sciences et technologies pour l'environnement et l'agriculture, Groupement de Grenoble		
National research institute of science and technology for environment and agriculture, Grenoble regional centre		LP		
French Geological Survey		PP		
Alp'Géorisques		PP		
Slovenian Forest Service		PP		
University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources		PP		
Slovenian Forestry Institute		PP		
University of Padova		PP		
Department of Agricultural, Forest and Food Sciences, University of Turin		PP		
Regional Agency for Services in Agriculture and Forest – Lombardia Region		PP		
AUTONOMOUS PROVINCE OF TRENTO – FOREST AND WILDLIFE DEPARTMENT		PP		
Politecnico di Torino		PP		
Federal Research and Training Centre for Forests, Natural Hazards and Landscape		PP		
Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management		PP		
Bavarian State Institute of Forestry		PP		
Bern University of Applied Sciences / HAFL		PP		
<i>Provide an overview how the project management will be organised: general structure and procedures, share of responsibilities, if project management will be externalised.</i>				
Founded on its EU project coordination assets, LP will set up the most efficient management framework for administrative tasks (externalized), day to day project management & progress reporting (Project Steering Committee - PSC- composed of all WP LPs, Project Advisory Board -PAB- composed of all PPs). All the PPs will be actively involved in the project management (meetings, reporting). The consortium will valorise its experience in EU project management.				

<i>Please describe activities and deliverables within the work package</i>			
Activity A.M.1	Project governance framework	2016.11	2019.10
Set up & secure an efficient organizational structure & internal communication flow between PPs, MA, JTS & Observers. 3 governance structures will be set up: Project Steering Committee, Project Advisory Board, project quality plan.			
Deliverable D.M.1.1	Right and duties of the PAB and the PSC		1,00
Internal document presenting the assignments, right, duties and composition of project governance structures : the Project Advisory Board, the Project Steering Committee.			
Deliverable D.M.1.2	The project risk and quality management plan		1,00
Internal document identifying the main external/internal constraints/risks potentially relevant for the project and how to face them; defining the internal/contractual quality requirements and initial data ownership.			
Activity A.M.2	Project controlling	2016.11	2019.10
Set up and secure the management of the project progress from thematically/technically/financially aspects. Set up a project internal dashboard for financial and cost planning, supervising WP time schedule and their action plans. The dashboard will be shared among the consortium, each partner will actively contribute to the implementation and updating.			
Deliverable D.M.2.1	Project dashboard		1,00
Internal digital tool for : optimizing/speeding up the thematically/technically/financially internal regular progress reporting processes, identifying as soon as possible any deviations.			
Activity A.M.3	Coordination of the partnership	2016.11	2019.10
Organization of the kick-off meeting and supervision of all intermediate meetings, project working events (e.g WP specific meetings, expert hearings...), coordination and organization of the administrative and scientific reports and of the work done within the WPs			
Deliverable D.M.3.1	Kick off, six-monthly project management meetings		7,00
Planning and organizing of the kick off meeting and of the 6 six-monthly project management meeting (including the Advisory Board, Steering Committee and observers). For each event minutes will be provided including all the presentation supports.			
Deliverable D.M.3.2	Project Advisory Board meetings		6,00
Planning and organizing 6 Project Advisory Board (only the WP leaders) meetings: 1 each semester also by phone or videoconferencing. Main objective of the meetings: progress reporting on the work and actions plan achieved and planned.			
Activity A.M.4	Project closure	2019.01	2019.10
Definition & planning of all the necessary activities to be carried out for the project closure (e.g. deliverables final version. Identification & distribution of PPs responsibilities within this specific task. All these actions will be carried out in order to provide the mandatory final report to the JTS according to the contract. None specific deliverable is associated to this activity.			

Type: Implementation

WP Nr	WP title	WP start date	WP end date	WP Budget
T1	ROCK-EU: Development of an innovative AS rockfall assessment methodology using harmonized criteria and objective data.	2016-11	2018-03	341.338,00

Partner involvement

WP responsible partner	University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources
National research institute of science and technology for environment and agriculture, Grenoble regional centre	LP
French Geological Survey	PP
Alp'Géorisques	PP
Slovenian Forest Service	PP
University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources	PP
Slovenian Forestry Institute	PP
University of Padova	PP
Department of Agricultural, Forest and Food Sciences, University of Turin	PP
Regional Agency for Services in Agriculture and Forest – Lombardia Region	PP
Politecnico di Torino	PP
Federal Research and Training Centre for Forests, Natural Hazards and Landscape	PP
Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management	PP
Bavarian State Institute of Forestry	PP
Bern University of Applied Sciences / HAFL	PP

Summary description and objectives of the work package including explanation of how partners will be involved.

The objective of T1 is to develop a common and harmonized methodology for defining the potential rockfall release & run-out zones in the whole Alpine Space. To date, such methodology does not exist. However, the basic principles have been developed & tested in the scientific community in the last 2 decades. This knowledge will be used & improved for building up an innovative spatial model dealing with AS countries specificities. This model represents the basis for implementation of T2 & T3.

Please describe project outputs that will be delivered based on the activities carried out in this work package. For each project output a programme output indicator should be chosen. Please note that they need to have the same measurement unit.

Project output		Describe your project output	Choose a programme indicator to which the project output will contribute	Target	Delivery Date
O.T1.1	Conceptualisation of the first historic rockfall events AS database	The AS database with historic rockfall events provides information on when, where and which magnitude rockfall events have occurred (for, but not limited to, the last 100 yrs). These data serve for calibration and validation of the developed model.	OI3.2.3 - Number of developed implementation elements enhancing the protection, the conservation and the ecological connectivity of Alpine Space ecosystems	1,00	2017-09
O.T1.3	ROCK-EU : a methodology for defining rockfall release and runout zones in the AS	Development of the rockfall release and runout zones models (coding of ROCK-EU) Calibration and validation per AS region using example cases Guidelines for ROCK-EU application ROCK-EU will be freely available from the project website.	OI3.2.3 - Number of developed implementation elements enhancing the protection, the conservation and the ecological connectivity of Alpine Space ecosystems	1,00	2018-03

Target groups per outputs	
Who will use the outputs delivered in this work package?	<ul style="list-style-type: none"> • local public authority • regional public authority • national public authority • sectoral agency • infrastructure and (public) service provider • SME
How will you involve target groups (and other shareholders) in the development of the project outputs?	A participative approach (workshops/expert hearings/surveys) will be developed by each PPs to share the needs with the target groups. The stakeholders will participate on local/regional/national level for giving strategic inputs or providing data to improve the model development, achievement, and its operational deployment. Within the last 2 months of T1 they will give feedback on the outputs for their optimization.
Durability and transferability of outputs	
How will the project outputs be further used once the project has been finalised? Please describe concrete measures (including e.g. institutional structures, financial sources etc.) taken during and/or after project implementation to ensure the durability of the project outputs. If relevant, please explain which project partner will be responsible and/or the owner of the output.	The durability of the outputs/models will be assured via the project web site (maintained 3 years after the project ending) and directly transfer to the target groups and observers. After the project lifetime the results will be accessible from each PPs website, international ecorisQ association (www.ecorisq.org) and free repositories websites.
How will the project ensure that the project outputs are applicable and replicable by other organisations/regions/countries outside of the current partnership? Please describe to what extent it will be possible to transfer the outputs to other organisations/regions/countries outside of the current partnership.	The methodology/model will be suitable for the entire AS and will be easy adaptable for mountain regions worldwide. Dissemination outside the AS is assured via the international ecorisQ association, the observer Norwegian Geotechnical Institute, technical/scientific publications/reports of the PPs . The RocExs.NET community (forum of international rockfall scientists & practitioners) will be also used for transferring the T1 outputs/deliverables.

<i>Please describe activities and deliverables within the work package</i>			
Activity A.T1.1	State of the art on rockfall modelling	2016.11	2017.07
The currently used rockfall models in the AS will be identified and a feedback on their advantage/limits will be done. The data required & available for their use at the AS level will be analyzed. A critical analyze on the principle of integration the action of trees/forest stands in these models will be carried out. For achieving these actions a bibliography review and a survey of model users & risk managers will be conducted.			
Deliverable D.T1.1.1	Report on the State of the Art on rockfall modelling		1,00
A report presenting the state of the art in current rockfall modelling principles, the available models, the available data for model calibration and validation, best practice in rockfall modelling.			
Activity A.T1.2	Collecting and analysing well documented data on historic rockfall events	2017.01	2017.09
An efficient rockfall risk assessment methodology requires adequate/accurate data for testing/calibrating/validating the models. So, well documented data on historic rockfall events will be collected (survey of the stakeholders in risk managements), analyzed & formalized in a GIS data base. A tool for providing retro-analysis of past events will be developed. The added value of Unmanned Aerial Vehicle (UAV) for safely field survey & site monitoring will be tested & analyzed.			
Deliverable D.T1.2.1	Data base on well documented historic rockfall events		1,00
A GIS-related database, INSPIRE compliant with historic rockfall events containing information on when, where and which magnitude rockfall events have occurred in the entire AS. A user manual will be included.			
Deliverable D.T1.2.2	RetroRock: the first AS harmonised utility for retro-analysis of rockfall trajectories		1,00
RetroRock will be a free computer application for retro-analysis of rockfall trajectories observed in the terrain. It will allow valuating cinematic rockfall parameters using field survey data. It will be delivered with a user guide.			
Deliverable D.T1.2.3	UAV added value for rockfall historic events survey and site monitoring		1,00
A key point is to do field survey in safely condition for the experts. The added value of UAV uses for collecting high resolution& accurate data will be tested. The results of these tests & the methodology developed will be presented in a report.			
Activity A.T1.3	Conducting reduced scale and numerical rockfall experiments	2017.03	2018.01
In order to provide an exhaustive analyze of rockfall runout distribution according to typical AS topographies, reduced scale (ex/in situ) & numerical rockfall experiments are needed. A typology of alpine slope profiles will be defined & used for the setting up of the experimental conditions. Experiments will be conducted in order to obtain a robust statistical data base. For each experimental condition the key variables governing the statistical runout distribution will be identified.			
Deliverable D.T1.3.1	Report on harmonised input data for rockfall modelling		1,00
This report will present the experimental setup, its link with the different topographical realities in the AS and the obtained experimental results			
Activity A.T1.4	Harmonise typical rockfall propagation statistics, data resolution and damage potential	2017.10	2018.01
Typical rockfall propagation statistics will be calculated using the past events/experiments data bases & calibrated by cross comparison with available regional or local maps. According to digital terrain models available in each AS country a harmonized resolution will be defined. The categories of damage potential used in each AS country will be analyzed & harmonized. These harmonized data will be used for conducting activities of T2 & T3.			
Deliverable D.T1.4.1	Harmonized data for rockfall risk assessment at the AS scale		1,00
This report will firstly present the statistics of rockfall runout zones that are representative for each geological region in the AS. Secondly, it justifies the resolution of the used topographical data and the chosen harmonized damage potential.			
Activity A.T1.5	Building of an innovative AS harmonized GIS based rockfall assessment methodology	2017.10	2018.03
The results of T1.1 to T1.4 will be used to code the models needed for developing the innovative AS GIS based methodology and application for 1) defining rockfall release & runout zones, 2) identifying assets potentially endangered. This GIS application has to be user-friendly, efficient regarding calculation time & based on open source platform. So, within the last 2 months of T1, it will be presented to the target groups/observers (risk managers,decision makers) & improved by their feedback			

Type: Implementation

WP Nr	WP title	WP start date	WP end date	WP Budget
T2	TORRID: Construction of the first AS Toolbox for assessing the protective effect of forests against rOckfall and expressing the protective role in a Risk Reduction InDex	2017-03	2018-07	280.553,30

Partner involvement

WP responsible partner	Federal Research and Training Centre for Forests, Natural Hazards and Landscape
National research institute of science and technology for environment and agriculture, Grenoble regional centre	LP
Alp'Géorisques	PP
Slovenian Forest Service	PP
University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources	PP
Slovenian Forestry Institute	PP
University of Padova	PP
Department of Agricultural, Forest and Food Sciences, University of Turin	PP
Regional Agency for Services in Agriculture and Forest – Lombardia Region	PP
AUTONOMOUS PROVINCE OF TRENTO – FOREST AND WILDLIFE DEPARTMENT	PP
Politecnico di Torino	PP
Federal Research and Training Centre for Forests, Natural Hazards and Landscape	PP
Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management	PP
Bavarian State Institute of Forestry	PP
Bern University of Applied Sciences / HAFL	PP

Summary description and objectives of the work package including explanation of how partners will be involved.

The objective of the T2 is to develop a toolbox called TORRID that allows 1) to identify & map forests that contribute to rockfall risk reduction (RRR) in the AS and 2), to define optimal forest characteristics for an efficient RRR. The ROCK-EU GIS application of T1 will be used for identifying forests that are present below problematic rockfall cliffs interfering with relevant damage potential. In association with the T1 outputs the T2 ones will be used for carrying out the T3 objectives.

Please describe project outputs that will be delivered based on the activities carried out in this work package. For each project output a programme output indicator should be chosen. Please note that they need to have the same measurement unit.

Project output		Describe your project output	Choose a programme indicator to which the project output will contribute	Target	Delivery Date
O.T2.1	Formalizing of illustrated evidence on the protective role of forests, dedicated to political decision-makers.	Extracted from the project past event database, representative examples will be used for providing evidence of positive/negative effects of forest in risk reduction. The information will be formalized for directly supporting political decision-makers.	OI3.2.2 - Number of developed strategic elements aiming to enhance the protection, the conservation and the ecological connectivity of Alpine Space ecosystems	1,00	2018-05
O.T2.2	TORRID toolbox	Detailed report with the work flow and tools applied in TORRID. Presentation of the methodology to the target groups.	OI3.2.2 - Number of developed strategic elements aiming to enhance the protection, the conservation and the ecological connectivity of Alpine Space ecosystems	1,00	2018-05

Target groups per outputs

Who will use the outputs delivered in this work package?	<ul style="list-style-type: none"> • local public authority • regional public authority • national public authority • sectoral agency • infrastructure and (public) service provider • SME
How will you involve target groups (and other shareholders) in the development of the project outputs?	A participative approach (workshops/expert hearings/surveys) will be developed by each PPs to share the needs and requirements with the TG. The stakeholders will participate on local/regional/national level for giving strategic inputs or providing data to improve the toolbox. Within the last 2 months of T2, the TG will be also asked to provide feedback on TORRID for its improvement.

Durability and transferability of outputs

How will the project outputs be further used once the project has been finalised? Please describe concrete measures (including e.g. institutional structures, financial sources etc.) taken during and/or after project implementation to ensure the durability of the project outputs. If relevant, please explain which project partner will be responsible and/or the owner of the output.	The durability of the outputs/models will be assured via the project web site (maintained 3 years after the project ending) and directly transfer to the target groups and observers. After the project lifetime the results will be accessible from each PPs website, international ecorisQ association (www.ecorisq.org) and free repositories websites. The use of the toolbox by public authorities and land owners will guarantee its mid/long term durability and maintenance.
How will the project ensure that the project outputs are applicable and replicable by other organisations/regions/countries outside of the current partnership? Please describe to what extent it will be possible to transfer the outputs to other organisations/regions/countries outside of the current partnership.	Dissemination outside the AS is assured via the international ecorisQ association, the observer Norwegian Geotechnical Institute, technical/scientific publications/reports of the PPs. The Alpine Convention, FAO/EFC and the RocExs.NET community will be also used for transferring the T2 outputs/deliverables.

<i>Please describe activities and deliverables within the work package</i>			
Activity A.T2.1	State of the art in rockfall protection forests	2017.03	2018.01
Bibliographic review, feedback on the current guidelines used in each countries, best practice examples on the whole AS. Comparison with other mountainous areas (outside AS). Synthesis of the info collected.			
Deliverable D.T2.1.1	Report on the state of the art in rockfall protection forests		1,00
This report summarizes existing knowledge on rockfall processes and how forests can mitigate these. In addition, it resumes existing guidelines in the AS countries for rockfall protection forest management.			
Activity A.T2.2	Identification of well documented historic rockfall events in forests	2017.05	2018.01
Each partner involved will be responsible for collecting and providing data for its own country/region. identification of the events will be done by survey of stakeholders, querying existing data bases (universities, research institutes, public authorities) or specific field and remote sensing survey (e.g SENTINEL data). A common structuration of the project data base will be established by the consortium. A GIS application will be developed.			
Deliverable D.T2.2.1	Database on historic events in forest		1,00
DT221 will be the equivalent of DT121 but dedicated to forest sites. The GIS-related database will be INSPIRE compliant. A user manual will be included.			
Deliverable D.T2.2.2	Added values of new remote sensing and UAV for risk protection forest survey and monitoring		1,00
DT222 will be the equivalent of DT123 but dedicated to forest site with a specific attention paid on trees/forest damages survey and time evolution monitoring (forest cover healing of the trajectories paths).			
Activity A.T2.3	Catalogue of representative examples of RRR by forests in the AS	2017.10	2018.03
Based on the analysis of the forest historical data base the selection of representative examples of rockfall risk reduction forests will be done. A dedicated catalogue will be carried out of selected examples (including both positive an negative effects of trees and forest stands). This catalogue will the base for selecting the potential key drivers of the TORRID toolbox..			
Deliverable D.T2.3.1	Report on required parameters and thresholds for TORRID		1,00
Based on the information from A.T2.2, a portfolio of newsletter type documents presenting representative examples of RRR by forests in different AS countries will be produced.			
Activity A.T2.4	Identify & harmonise the required parameters and thresholds for TORRID	2017.12	2018.03
The analysis of the representative forest RRR example will provide the identification of the key parameters explaining the role play by forets stands in rockfall risk mitigation. A specific workshop (PPs, TG) will be held to share, discuss and define harmonized threshold classes.			
Deliverable D.T2.4.1	TORRID required key parameters		1,00
This report synthesises the harmonised parameters required by TORRID (i.e., standardised rock sizes and detailed tree species distributions per forest complex), and thresholds for optimal and sustainable conditions of forest ecosystems for RRR			
Activity A.T2.5	Consructing and testing the TORRID toolbox	2017.12	2018.07
The results of T2.1 to T2.4 will be used to develop the TORRID toolbox. The toolbox will allow calculating the rockfall risk reduction index for different forest sites, forest stands, and forest management scenarios. Within the last 2 months of T2, TORRID will be presented to the target groups/observers (e.g foresters, risk managers, authorities) and improved with their feedback.			

Type: Implementation

WP Nr	WP title	WP start date	WP end date	WP Budget
T3	Production of the first harmonised map of protective services of forest ecosystems against rockfall for the entire AS	2017-09	2019-06	387.796,15

Partner involvement

WP responsible partner	Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management
National research institute of science and technology for environment and agriculture, Grenoble regional centre	LP
French Geological Survey	PP
Alp'Géorisques	PP
Slovenian Forest Service	PP
University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources	PP
Slovenian Forestry Institute	PP
University of Padova	PP
Department of Agricultural, Forest and Food Sciences, University of Turin	PP
Regional Agency for Services in Agriculture and Forest – Lombardia Region	PP
AUTONOMOUS PROVINCE OF TRENTO – FOREST AND WILDLIFE DEPARTMENT	PP
Politecnico di Torino	PP
Federal Research and Training Centre for Forests, Natural Hazards and Landscape	PP
Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management	PP
Bavarian State Institute of Forestry	PP
Bern University of Applied Sciences / HAFL	PP

Summary description and objectives of the work package including explanation of how partners will be involved.

In T3, the methodologies/tools/outputs developed in T1&T2, will be used to provide detailed first harmonized Rockfall Protection Forest map at NUTS3 level (forest and risk management) for the entire AS. This mapping will be done in 2 steps: 1) localization and identification of protection forest by intersecting the maps of rockfall runout zone, damage potential, and forest coverage (applying ROCK-EU); 2) evaluation of the mitigation efficiency provided by the forest stands (applying TORRID).

Please describe project outputs that will be delivered based on the activities carried out in this work package. For each project output a programme output indicator should be chosen. Please note that they need to have the same measurement unit.

Project output	Describe your project output	Choose a programme indicator to which the project output will contribute	Target	Delivery Date
O.T3.1	Maps relevant for protection forest and rockfall hazard management	This output is the most important and strategic ones of the project. The relevant maps for improving the protection forest ecosystems services, risk prevention management and policies will be produced, and transfer to the stakeholders.	OI3.2.2 - Number of developed strategic elements aiming to enhance the protection, the conservation and the ecological connectivity of Alpine Space ecosystems	1,00 2019-04

Target groups per outputs	
Who will use the outputs delivered in this work package?	<ul style="list-style-type: none"> • local public authority • regional public authority • national public authority • sectoral agency • infrastructure and (public) service provider • SME • International organisation under inter-national law
How will you involve target groups (and other shareholders) in the development of the project outputs?	The T3 outputs are the most important, strategic, usable ones of the project for the identified TG (principally decision makers). At each of the 2 steps of the process, national/regional workshops, expert hearings, surveys and interviews will be organized for checking the results with the TG. Suggestions and remarks of TG will be evaluated for improving the processes. The consortium will invite TG to express specific requests in order to summarize the results in customized reports.
Durability and transferability of outputs	
How will the project outputs be further used once the project has been finalised? Please describe concrete measures (including e.g. institutional structures, financial sources etc.) taken during and/or after project implementation to ensure the durability of the project outputs. If relevant, please explain which project partner will be responsible and/or the owner of the output.	The relevant maps for protection forest and rockfall hazard management will be implemented in existing regional/national risk platforms (e.g. GIS, databases...). An aggregation at the NUTS2 level will be provided and transferred to the TG. The maps will be used for funds allocation (e.g. EAFDR,..) to support NUTS3/2 levels risk protection policies. The durability of the resulting maps will be ensured by the systems of each authorities to which the infos will be transferred.
How will the project ensure that the project outputs are applicable and replicable by other organisations/regions/countries outside of the current partnership? Please describe to what extent it will be possible to transfer the outputs to other organisations/regions/countries outside of the current partnership.	As the maps will be harmonized at AS level & transfer at national level to Ministries (T3 is led by a Ministry PP) in charge of national risk disaster reduction/ forest policies, they will be suitable for statistical analysis at the EU & worldwide levels. The transferability of the methodologies to other natural risk (e.g. snow avalanches) will be tested for specific areas.

<i>Please describe activities and deliverables within the work package</i>			
Activity A.T3.1	Constructing the database with input data required for the models	2017.09	2018.01
Construct the database with input data required for the models (data collection & data harmonization according to the criteria defined in the previous T) . This database will be built up from the ones currently available in the PPs organization (national digital terrain model, local/regional/national forest cover maps, rockfall risks maps and prevention plans, geological info) and completed with the complementary ones of the target groups.			
Deliverable D.T3.1.1	Database of the input data required for the modelling processes		1,00
For each AS countries, the input data harmonized according the project specification and required for the protection forest mapping will be collected and used for constructing national input data GIS database (INSPIRE compliant).			
Activity A.T3.2	Mapping potential rockfall runout zones without considering the protective effect of forest ecosystems	2017.10	2018.05
For each AS region ROCK-EU methodology and associated models will be applied. For each Alpine Space country the related PPs will be responsible for their regional/national maps production process.			
Deliverable D.T3.2.1	GIS layer of potential rockfall runout zone		1,00
The model ROCK-EU will be used for providing potential rockfall release & runout zones. The result of this modeling phase will be implemented as a layer in the project GIS platform			
Activity A.T3.3	Identification of potential endangered assets by rockfall	2018.01	2018.12
Identification of endangered assets by intersecting the modeled runout zones (results of T3.2) with damage potential maps (relevant endangered zones). This task corresponds to the application of ROCK-EU step 2 methodology. For each Alpine Space country the related PPs will be responsible for their maps production process.			
Deliverable D.T3.3.1	GIS layer of potential endangered assets		1,00
The zones resulting of the AT3.2 will be intersected with the damage potential maps for identifying the potential endangered area. The result of this maps crossing/intersecting will be implemented as a layer in the project GIS platform.			
Activity A.T3.4	Mapping protection forests and efficacy evaluation	2018.06	2019.02
This activity is corresponding to the application of TORRID toolbox. Firstly the intersection of the relevant endangered zones with the forest cover map will be done . Secondly, for each protection forest complex, an analysis will be carried out, which determines the protective and mitigation efficacy. For each Alpine Space country the related PPs will be responsible for their maps production process.			
Deliverable D.T3.4.1	GIS layer of protection forest map		1,00
TORRID will be used for 1) intersecting the potential endangered areas with the forest cover map, 2) identifying the protection forests, 3) evaluating the efficacy of this protection. The results will be formalized in a layer of the project GIS platform.			
Activity A.T3.5	Evaluating models & methodology performance	2018.06	2019.06
The models & methodology performance will be evaluated by comparison to reality & definition of the validity domain of the produced maps in the different regions. The protection forest map will be compared to existing protection forest maps (e.g., CH, D, AT,...), with the project historic event databases, and finally checked by managers/practitioners in the different regions. A specific methodology transferability test will be carried out in Trentino region for avalanche risk.			
Deliverable D.T3.5.1	Report on project mapping tools and methodology performances evaluation		1,00
Maps issued from modeling results need to be validated by comparison with real data/local knowledge. The validity domain of project maps will be thus defined. The validation process and its results will be formalized within a report.			
Deliverable D.T3.5.2	Meetings with stakeholders for produced maps cross validation		6,00
At least six national strategic meetings involving partners, observers and relevant stakeholders will be organized for evaluating by cross validation the performance of the project models via the relevance of the maps produced with them.			

Type: Implementation

WP Nr	WP title	WP start date	WP end date	WP Budget
T4	From the implementation of an economic model to the economic assessment of rockfall protection forest ecosystems services	2017-06	2019-07	247.688,05

Partner involvement

WP responsible partner	Department of Agricultural, Forest and Food Sciences, University of Turin
National research institute of science and technology for environment and agriculture, Grenoble regional centre	LP
French Geological Survey	PP
Alp'Géorisques	PP
Slovenian Forest Service	PP
University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources	PP
Slovenian Forestry Institute	PP
University of Padova	PP
Department of Agricultural, Forest and Food Sciences, University of Turin	PP
Regional Agency for Services in Agriculture and Forest – Lombardia Region	PP
AUTONOMOUS PROVINCE OF TRENTO – FOREST AND WILDLIFE DEPARTMENT	PP
Federal Research and Training Centre for Forests, Natural Hazards and Landscape	PP
Bavarian State Institute of Forestry	PP
Bern University of Applied Sciences / HAFL	PP

Summary description and objectives of the work package including explanation of how partners will be involved.

T3 outputs allow clearly displaying zones where nature based techniques are potentially usable for risk mitigation. It's only the first step for evaluating the importance of rockfall protection forest ecosystems service. Indeed, the last step of this process is to assess the economic impacts of this service. To date, no harmonized methodology exists for providing such evaluation & allowing cross comparison between countries. The development of such methodology is the objective of T4.

Please describe project outputs that will be delivered based on the activities carried out in this work package. For each project output a programme output indicator should be chosen. Please note that they need to have the same measurement unit.

Project output	Describe your project output	Choose a programme indicator to which the project output will contribute	Target	Delivery Date
O.T4.1	ASFORESEE: an AS harmonized methodology for economical assessment of protection forest ecosystems service	ASFORESEE will be an operational methodology (tested in representative AS key situations) for the economic evaluation of nature based rockfall risk mitigation solutions. It will provide the missing link for the comprehensive analyze of protection forest	OI3.2.3 - Number of developed implementation elements enhancing the protection, the conservation and the ecological connectivity of Alpine Space ecosystems	1,00 2019-07

Target groups per outputs	
Who will use the outputs delivered in this work package?	<ul style="list-style-type: none"> • local public authority • regional public authority • national public authority • sectoral agency • infrastructure and (public) service provider • SME
How will you involve target groups (and other shareholders) in the development of the project outputs?	The target groups will be involved 1) in the selection of the case studies in order to identify the AS key situations, 2) in the economic data gathering process, 3) the feedback and critical analysis of the outputs gained with ASFORESEE. For achieving these actions regional/national thematically workshops/expert hearings/surveys/interviews will be planed.
Durability and transferability of outputs	
How will the project outputs be further used once the project has been finalised? Please describe concrete measures (including e.g. institutional structures, financial sources etc.) taken during and/or after project implementation to ensure the durability of the project outputs. If relevant, please explain which project partner will be responsible and/or the owner of the output.	ASFORESEE (freeware) will be transferred to the relevant authorities in charge of protection and/or risk prevention policies. A proposal for its systematically use in forest management and risk prevention plans will be done. The durability of ASFORESEE will be ensured by the systems of each authorities to which the tool will be transferred, the PPs website and the maintenance of project website during the 3 years after the project end (LP responsibility).
How will the project ensure that the project outputs are applicable and replicable by other organisations/regions/countries outside of the current partnership? Please describe to what extent it will be possible to transfer the outputs to other organisations/regions/countries outside of the current partnership.	ASFORESEE will be suitable for the entire AS and, depending on the available economic data, will be usable in mountain regions worldwide. Dissemination outside the AS is assured via the international ecorisQ association, the observer Norwegian Geotechnical Institute, the PPs website, PPs participation to EU/International technical/scientific workshops/congress.

<i>Please describe activities and deliverables within the work package</i>			
Activity A.T4.1	Providing a state of the art on current protection forest ecosystem services economic assessment	2017.06	2018.02
A bibliographic review on forest ecosystem services economical assessment will be conducted. A critical analysis of the different methodologies/tools will be provided. The gathered info and the critical analysis will be used to achieve a state of the art. A specific attention will be paid on the concept of territorial resilience.			
Deliverable D.T4.1.1	State of the art on protection forest services economic assessment		1,00
Report on the current know-how, concept, models, needed data and methodologies for economic evaluation of natural risk protection ecosystems services.			
Activity A.T4.2	Defining the main concepts to be used for economical analyses of risk mitigation strategies	2018.01	2018.07
A.T4.1 outputs will be used to define the main concepts for economical analyses of alternative risk mitigation strategies: avoidance/replacement/compensation. These concepts are depending on the economic data available. Distinct calculation methods will be set up.			
Deliverable D.T4.2.1	Economic concepts for evaluation of risk mitigation strategies		1,00
Report on the selected economic concepts issued from the critical analysis of the output of AT41 and relevant for economic evaluation of risk governance scenarios using risk mitigation nature based solution.			
Activity A.T4.3	To set up an AS harmonized methodology for protection FORest Ecosystem Services Economic Evaluation	2018.06	2019.01
The outputs of A.T4.1 & A.T4.2 will be used to develop the innovative ASFORESEE methodology (harmonized methodology for protection FORest Ecosystem Services Economic Evaluation). The data needed for implementing this new holistic method will be determined and harmonized. The workflow will be encoded and used as economic assessment procedure.			
Activity A.T4.4	Selection of case studies and collection of input data for testing ASFORESEE	2018.10	2019.03
Realistically, due to time required for achieving T1, 2 & 3, ASFORESEE deployment at all AS is not feasible within project schedule. That's why ASFORESEE will be only tested in selected case studies with adequate data/relevant stakeholder structure. They will be selected from the protection forest maps (A.T3.5). In each case study the required economic data will be collected & processed for A.T4.5. Farther the possibility to define PES (Payment of Ecosystems Services) will be explore.			
Deliverable D.T4.4.1	Case studies database for testing ASFORESEE		1,00
For each selected case studies the required input data for applying and testing the methodology ASFORESEE will be collected and used for setting up a GIS database. Some of these data will be provided by relevant stakeholders.			
Activity A.T4.5	Testing of ASFORESEE in the selected case studies	2018.10	2019.07
ASFORESEE will be deployed in the selected case studies. The reliability of ASFORESEE for practitioners and decision makers will be tested. Case studies expert/stakeholder workshops will be organized for collecting the feedback. The feedback will be used for the improvement of the methodology within the last two months of T4.			
Deliverable D.T4.5.1	Approved examples of operational deployments of ASFORESEE		1,00
The critical analysis coming from the feedback of the test of ASFORESEE in each case study will be formalized in a report, illustrated with the outputs obtained.			

Type: Implementation

WP Nr	WP title	WP start date	WP end date	WP Budget
T5	Implementation of guidelines, a Territorial Information System and recommendations for sustainably valorise rockfall protection forest ecosystems services	2018-03	2019-09	334.822,65

Partner involvement

WP responsible partner	University of Padova
National research institute of science and technology for environment and agriculture, Grenoble regional centre	LP
French Geological Survey	PP
Alp'Géorisques	PP
Slovenian Forest Service	PP
University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources	PP
Slovenian Forestry Institute	PP
University of Padova	PP
Department of Agricultural, Forest and Food Sciences, University of Turin	PP
Regional Agency for Services in Agriculture and Forest – Lombardia Region	PP
AUTONOMOUS PROVINCE OF TRENTO – FOREST AND WILDLIFE DEPARTMENT	PP
Politecnico di Torino	PP
Federal Research and Training Centre for Forests, Natural Hazards and Landscape	PP
Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management	PP
Bavarian State Institute of Forestry	PP
Bern University of Applied Sciences / HAFL	PP

Summary description and objectives of the work package including explanation of how partners will be involved.

For sustainably promote & valorize the rockfall protection forest ecosystems service, there is a need of displaying & synthesizing the project's outputs & findings in formats which are readily accessible/usable by all relevant actors. 4 different formats are relevant for promoting the project results: digital maps, working events, factual data in newsletter form, synthetic guidelines (digital version). The outputs of T1,2,3,4 will be used to set up the project results promoting materials.

Please describe project outputs that will be delivered based on the activities carried out in this work package. For each project output a programme output indicator should be chosen. Please note that they need to have the same measurement unit.

Project output	Describe your project output	Choose a programme indicator to which the project output will contribute	Target	Delivery Date
O.T5.1	Conceptualisation and production of a WEBGIS rockfall protection forest territorial information system	All the produced maps by the project will be implemented & searchable on line in the WEBGIS project application. This WEBGIS is intended to be a publicly available information tool. Management guidelines/factual info will be also available via this tool.	OI3.2.3 - Number of developed implementation elements enhancing the protection, the conservation and the ecological connectivity of Alpine Space ecosystems	1,00 2019-07

Target groups per outputs	
<p>Who will use the outputs delivered in this work package?</p>	<ul style="list-style-type: none"> • local public authority • regional public authority • national public authority • sectoral agency • infrastructure and (public) service provider • interest groups including NGOs • higher education and research • education/training centre and school • SME • International organisation under inter-national law • General public
<p>How will you involve target groups (and other shareholders) in the development of the project outputs?</p>	<p>Even if the maps produced will be implemented in the “Project on line publicly available Territorial Information System”, they will be also transferred in GIS format to relevant TG for being implemented in their own GIS. The format/way of transferring the data will be defined with the relevant TG. The type/date/place of promoting events (e.g training sessions...) will be defined with the relevant TG. The design of the factual data will be define with decision/policy makers & project observers.</p>
Durability and transferability of outputs	
<p>How will the project outputs be further used once the project has been finalised? Please describe concrete measures (including e.g. institutional structures, financial sources etc.) taken during and/or after project implementation to ensure the durability of the project outputs. If relevant, please explain which project partner will be responsible and/or the owner of the output.</p>	<p>The project WEBGIS application will be maintained by the lead partner during 3 years after the closure of the project. The transfer of the maps to each national/regional authority and to the EU JRC (IPSC) of ISPRA ensures their further operational uses.</p>
<p>How will the project ensure that the project outputs are applicable and replicable by other organisations/regions/countries outside of the current partnership? Please describe to what extent it will be possible to transfer the outputs to other organisations/regions/countries outside of the current partnership.</p>	<p>The factual info on rockfall protection forests in the AS and associated maps will be transferred and usable by the EU/international organizations (e.g Alpine Convention, European Forest Institute, IUFRO, FAO, ONU, IUCN...) for providing and displaying European and Worldwide factual data. The synthetic guidelines (5 languages) for sustainably manage rockfall protection forest ecosystems services will be worldwide usable, so it will be also transferred to EU and international organizations.</p>

<i>Please describe activities and deliverables within the work package</i>			
Activity A.T5.1	Developing a rockfall protection forest WEBGIS Territorial Information System	2018.03	2019.08
Geographical information is one of the public policy major issues for developing sustainable risk governance /management & for supporting public information/education. The project maps will be in GIS digital format. A specific Territorial Information System based on a WEBGIS application will be set up in which the rockfall protection forest maps will be available at the NUTS3 and also at NUTS2 level (aggregation of NUTS3 info). The EU INSPIRE directive (2007/2/CE) will be implemented.			
Activity A.T5.2	Promoting project outputs via working events	2019.04	2019.09
3 types of project working events will be organized and held: stakeholders hearings, 1 international summer school (dedicated to students education), training sessions for practitioners. Except the summer schools, the other working events will be in the national language of their geographical location. Within these events, models, methodologies and produced map will be presented including or not practical exercises (depending on the type of event).			
Deliverable D.T5.2.1	Stakeholders hearings		4,00
Presentation of the project final outputs to relevant stakeholders by organizing stakeholders hearings. 1 stakeholders hearing for each linguistic area.			
Deliverable D.T5.2.2	ROCKtheALPS international summer school		1,00
Specific outputs promoting action dedicated to geosciences/forestry students. During 1 week the models/methodologies developed within the project will be presented to 30 European students via practical training action in 1 of the project case studies			
Deliverable D.T5.2.3	Training sessions for practitioners		4,00
Specific outputs promoting action dedicated to practitioners (foresters/risk experts). 2 days training session on the project models/methodologies via practical training activities in 1 project case study. 1 training session for each linguistic area.			
Activity A.T5.3	Providing factual info to decision/policy makers	2019.03	2019.07
Based on the consultation of relevant stakeholder, the factual info dedicated to decision/policy makers will be defined. They will be produced by geo-statistical analyses of the project maps/data base produced in the A.T3.4 . These info will be synthesized at NUTS3, NUTS2, national AS zone, and for the entire AS. Multilingual flyers/newsletter presenting these factual data will be produced and disseminated to relevant regional/national/AS/EU stakeholder.			
Deliverable D.T5.3.1	Factual info on rockfall protection forest in the AS		5,00
Flyers/newsletter (paper & digital) in the 4 AS languages & English presenting synthetic factual info on rockfall protection forests at NUTS3, NUTS2, national AS zone and the entire AS.			
Activity A.T5.4	Producing synthetic guidelines for sustainably manage rockfall protection forest ecosystems services	2018.03	2019.08
Using the outputs of previous national/ Interreg /EU projects, and of the project models/methodologies testing actions in the different project case studies, synthetic silvicultural and forest management guidelines for sustainably manage rockfall protection forest ecosystems services will be synthesized in a digital handbook (4AS languages + English). This handbook will be tested within the A.T5.2 and the improved version will be uploaded in the project website and in the PPs website.			
Deliverable D.T5.4.1	Synthetic guidelines for sustainably manage rockfall protection forest ecosystems service in the AS		5,00
Digital handbook (4 AS languages +English) presenting synthetic silvicultural and forest management guidelines dedicated to improve the sustainability of rockfall mitigation forest ecosystems service. It will be illustrated with the project case studies.			

Type: Communication

WP Nr	WP title	WP start date	WP end date	WP Budget
C	Communication	2016-11	2019-10	271.162,55
Partner involvement				
WP responsible partner		National research institute of science and technology for environment and agriculture, Grenoble regional centre		
National research institute of science and technology for environment and agriculture, Grenoble regional centre		LP		
French Geological Survey		PP		
Alp'Géorisques		PP		
Slovenian Forest Service		PP		
University of Ljubljana, Biotechnical Faculty, Department for Forestry and Renewable Resources		PP		
Slovenian Forestry Institute		PP		
University of Padova		PP		
Department of Agricultural, Forest and Food Sciences, University of Turin		PP		
Regional Agency for Services in Agriculture and Forest – Lombardia Region		PP		
AUTONOMOUS PROVINCE OF TRENTO – FOREST AND WILDLIFE DEPARTMENT		PP		
Politecnico di Torino		PP		
Federal Research and Training Centre for Forests, Natural Hazards and Landscape		PP		
Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management		PP		
Bavarian State Institute of Forestry		PP		
Bern University of Applied Sciences / HAFL		PP		
<i>Please indicate main objectives of the work package, as well as its linkage to the other work packages and provide a short description of the main activities.</i>				
<p>ROCKtheALPS has been developed for meeting 2 crucial social demands: increasing the welfare and quality of life of AS territories inhabitants/users; enhancing awareness of the public & decision/policy makers on the importance of risk protection forest heritage. The nature & format of the main projects output have been chosen accordingly: digital maps & factual info. By construction a map, if the graphic semiology is target groups oriented, is one of the most efficient tools for communicating information. Therefore, in this general context of risk prevention, the objective of the WP C is to raise awareness among society & authorities by the spreading of the useful knowledge gained within the project with target groups oriented dissemination actions. All the PPs are the key players of the project communication strategy and associated actions.</p>				

Project specific objectives	Communication objectives - What can communications do to reach a specific project objective?	Approach/Tactics - How do you plan to reach the communication objective?
Developing the first AS harmonised regional rockfall risk model, based on the benchmarking of the current rockfall risk mapping methodologies	Increase knowledge	This model, ROCK-EU, will be the first further statistical model of its kind (worldwide premiere). It will be freely available via the project website and project observers ones. For being efficient, its dissemination has to offer complete transparency on its development. So a report (ROCK-EU revealed) will be include in the downloading package. Sci. & tec. articles, will be edited in nat. & int. journal. It will be presented in expert/stakeholders hearings, training sessions, student lectures
Operational deployment at the entire AS scale of the rockfall risk and protection forest mapping innovative methodologies.	Increase knowledge	For the first time in the entire AS, a common and harmonized methodology for mapping rockfall protection forests will be developed and deployed. The maps produced will then considerably increase the knowledge on this forest ecosystems service: identification, location, efficacy and economic evaluation. These maps & factual data at NUTS3/NUTS2 level will be transferred to the communal/regional/national authorities and forest organization for being uploaded in their GIS for a day to day use.
Capitalization and transfer of the project results to decision and policy makers for valorisation & governance of AS forest for the rockfall protection service.	Change behaviour	Partners & observers composition is the strategy chosen to achieve the objective. Results will have direct application at policy level on risk/forest planning&prevention&management for PP&observers are direct responsible of policy making, rules definition & forest management in all AS. Besides project webgis will be publicly/freely accessible to all TG, raising awareness on forests rule in rockfall risk mitigation. Promotion campaign will be done via conferences, trainings, specific newsletter.

<i>Please describe activities and deliverables within the work package</i>			
Activity A.C.1	Start-up activities including communication s	2016.11	2019.10
Set up of the project communication strategy, associated medium and project internal rules. Implementation of the project graphical chart: logo, ppt/flyer/brochure/report templates. Project website development (hosted by ASP).			
Deliverable D.C.1.1	Project website		1,00
The project website will be design and putting on line. It will offer a general public comprehensive overview of the project, detailed info about the project work plan, time line and outputs, free online access to the deliverable publicly available.			
Deliverable D.C.1.2	Project Communication/Dissemination Plan		1,00
A set of internal documents presenting: the project graphical chart and logo, the internal rules for communication actions (e.g. logo sizes, internal identification process, press release ...), the communication strategy, document templates.			
Activity A.C.2	Publication(s)	2017.02	2019.10
English and national language flyers and posters presenting a project overview, national language and English brochures for more detailed project presentation. A newsletter send on a quarterly basis to the target groups.			
Deliverable D.C.2.1	Project general presentation English and national language flyers		5,00
English and national language flyers given a general overview of the project : Wps, main outputs, partnership. The ASP and project graphical charts will be used.			
Deliverable D.C.2.2	Project general presentation English and national language posters		5,00
English and national language posters given a general overview of the project: Wps, main outputs, partnership. The ASP and project graphical charts will be used. These posters will be used in each project events. A4 versions will be print as "take home message".			
Deliverable D.C.2.3	Project newsletter		12,00
A newsletter (only in digital format) will be send quarterly to the target groups and publicly available in the project website. A synthetically overview on the project progress implementation will be so provided.			
Activity A.C.3	Public Event(s)	2017.03	2019.10
Founded on feedback of previous Interreg project, 4 midterm conf. & 4 final conf. in national languages & 1 English int. final conference will be held. Working events will be set up in cooperation with the WPTs. Press release campaigns will be planned.			
Deliverable D.C.3.1	Midterm conference proceedings		4,00
The proceeding of each midterm conf. will be available in digital form on the project website. These proceedings will present the objectives, the work plan and the first results of the project.			
Deliverable D.C.3.2	Final conference proceedings		5,00
The proceeding of each final conf. will be available in digital form on the project website. Some PPs are involved in int. organization (IUFRO, Interpreavent, Rocex, ecorisQ), therefore the English final conf. will have an int. advertising campaign.			
Activity A.C.4	Promotional activities	2016.11	2017.03
Development of a set of promotional material for ensure 1) the project visual identification of PPs during field surveys and working public events, 2) the project advertising campaign.			
Deliverable D.C.4.1	A set of project promotional and visual identification material		1,00
National languages & English roll-ups (ASP/project/PPs logos,...). Project-tee shirt/bodywarmer for PPs visual identification (field surveys, working/public events). A set of promotional gadget (USB keys, pens, paper pad...) for working/public events.			
Activity A.C.5	Digital activities	2017.01	2019.10
Founded on positive feedback from previous Interreg projects, documentary videos will be produced and disseminate via: youtube and the project website (flash videos). Youtube will be used for developing the ROCKtheALPs channel (private consultancy).			
Deliverable D.C.5.1	ROCKtheALPS Youtube channel		1,00
A project youtube channel will be developed .Project documentary videos (interviews of PPs, stakeholders, presentation of case studies,...) will be uploaded both in Youtube and in the project website.			

C.5.1 Periods

Period Number	Duration (month)	Start Date	End Date
0	8	2016-02-20	2016-10-31
1	8	2016-11-01	2017-06-30
2	6	2017-07-01	2017-12-31
3	6	2018-01-01	2018-06-30
4	6	2018-07-01	2018-12-31
5	6	2019-01-01	2019-06-30
6	4	2019-07-01	2019-10-31

C.6 Activities outside the Union part of the programme area

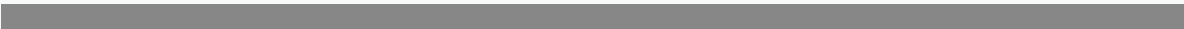















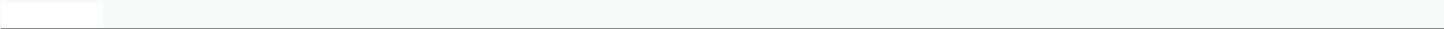



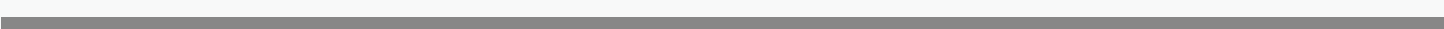
If applicable, please list activities to be carried out outside (the Union part of) the programme area. Describe how these activities will benefit the programme area. What is the added value of activities to be carried out outside (the Union part of) programme area? If applicable, please list the relevant activities and describe how they will benefit the programme area.

The project results dissemination abroad strategy is partly based on presentations in international scientific/technical/practice events dealing with risk disaster prevention/forest ecosystems services as e.g. RocExs 2017, IUFRO world congress 2019

Total budget	12.500,00
ERDF outside	10.625,00
% of total (indicative)	0,48

C.7 Indicative time plan

Work packages and activities	2016-02	2016-10	2016-11	2017-06	2017-07	2017-12
WP0	[Bar chart showing activity from Feb 2016 to Oct 2016]					
WP1	[Bar chart showing activity from Nov 2016 to Dec 2017]					
Activity1.1	[Bar chart showing activity from Nov 2016 to Dec 2017]					
Activity1.2	[Bar chart showing activity from Nov 2016 to Dec 2017]					
Activity1.3	[Bar chart showing activity from Nov 2016 to Dec 2017]					
WP2	[Bar chart showing activity from Nov 2016 to Dec 2017]					
Activity2.1	[Bar chart showing activity from Nov 2016 to Jun 2017]					
Activity2.2	[Bar chart showing activity from Jul 2017 to Oct 2017]					
Delivery2.2.1	[Bar chart showing activity in Jul 2017]					
Delivery2.2.2	[Bar chart showing activity in Jul 2017]					
Delivery2.2.3	[Bar chart showing activity in Jul 2017]					
Activity2.3	[Bar chart showing activity from Jun 2017 to Dec 2017]					
Activity2.4	[Bar chart showing activity from Dec 2017 to Jan 2018]					
Activity2.5	[Bar chart showing activity from Dec 2017 to Jan 2018]					
WP3	[Bar chart showing activity from Jun 2017 to Dec 2017]					
Activity3.1	[Bar chart showing activity from Jun 2017 to Dec 2017]					
Activity3.2	[Bar chart showing activity from Jul 2017 to Dec 2017]					
Activity3.3	[Bar chart showing activity from Dec 2017 to Jan 2018]					
Activity3.4	[Bar chart showing activity in Dec 2017]					
Activity3.5	[Bar chart showing activity in Dec 2017]					
WP4	[Bar chart showing activity from Dec 2017 to Jan 2018]					
Activity4.1	[Bar chart showing activity from Dec 2017 to Jan 2018]					
Activity4.2	[Bar chart showing activity from Dec 2017 to Jan 2018]					

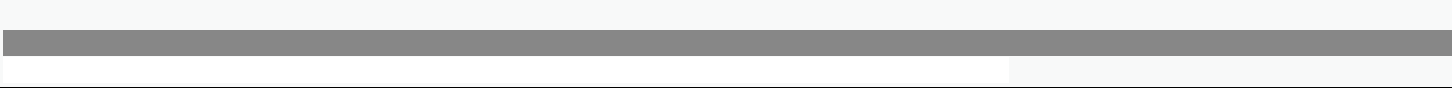




WP3	
Activity3.1	
Delivery3.1.1	
Activity3.2	
Delivery3.2.1	
Delivery3.2.2	
Activity3.3	
Delivery3.3.1	
Activity3.4	
Delivery3.4.1	
Activity3.5	
WP4	
Activity4.1	
Delivery4.1.1	
Activity4.2	
Delivery4.2.1	
Activity4.3	
Delivery4.3.1	
Activity4.4	
Activity4.5	
WP5	

Activity5.1	
Delivery5.1.1	
Activity5.2	
Delivery5.2.1	
Activity5.3	
Activity5.4	
Activity5.5	
WP6	
Activity6.1	
Activity6.4	
WP7	
Activity7.1	
Activity7.2	
Activity7.3	
Activity7.5	

Work packages and activities	2019-01	2019-06	2019-07	2019-10
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WP1	
Activity1.1	
Delivery1.1.1	
Delivery1.1.2	
Activity1.2	
Delivery1.2.1	
Activity1.3	
Delivery1.3.1	
Delivery1.3.2	
Activity1.4	
WP4	
Activity4.4	
Delivery4.4.1	
Activity4.5	
Delivery4.5.1	
Delivery4.5.2	
WP5	
Activity5.3	
Activity5.4	
Delivery5.4.1	
Activity5.5	
Delivery5.5.1	

WP6	
Activity6.1	
Activity6.2	
Delivery6.2.1	
Delivery6.2.2	
Delivery6.2.3	
Activity6.3	
Delivery6.3.1	
Activity6.4	
Delivery6.4.1	
WP7	
Activity7.1	
Delivery7.1.1	
Delivery7.1.2	
Activity7.2	
Delivery7.2.1	
Delivery7.2.2	
Delivery7.2.3	

Activity7.3	
Delivery7.3.1	
Delivery7.3.2	
Activity7.5	
Delivery7.5.1	

PART D - Project Budget

D.1 Project budget per co-financing source (fund) - breakdown per partner

Partner		Programme Co-financing		Contribution			Total Budget
Partner Abbreviation	Country	ERDF	ERDF Co-Financing(%)	Public	Private	Total	
IRSTEA	FRANCE	198.780,02	85,00 %	35.078,83	0,00	35.078,83	233.858,85
BRGM	FRANCE	128.392,71	85,00 %	22.657,54	0,00	22.657,54	151.050,25
Alp'Géorisques	FRANCE	65.034,77	85,00 %	0,00	11.476,73	11.476,73	76.511,50
SFS	SLOVENIJA	131.165,58	85,00 %	23.146,87	0,00	23.146,87	154.312,45
UL	SLOVENIJA	130.869,31	85,00 %	23.094,59	0,00	23.094,59	153.963,90
SFI	SLOVENIJA	134.889,77	85,00 %	23.804,08	0,00	23.804,08	158.693,85
UNIPD	ITALIA	154.997,50	85,00 %	27.352,50	0,00	27.352,50	182.350,00
DISAFA	ITALIA	129.965,00	85,00 %	22.935,00	0,00	22.935,00	152.900,00
ERSAF	ITALIA	131.999,90	85,00 %	23.294,10	0,00	23.294,10	155.294,00
PAT-SFF	ITALIA	131.750,00	85,00 %	23.250,00	0,00	23.250,00	155.000,00
POLITO	ITALIA	124.988,63	85,00 %	22.056,82	0,00	22.056,82	147.045,45
BFW	ÖSTERREICH	144.999,46	85,00 %	25.588,14	0,00	25.588,14	170.587,60
BMLFUW	ÖSTERREICH	104.091,00	85,00 %	18.369,00	0,00	18.369,00	122.460,00
LWF	DEUTSCHLAND	144.920,75	85,00 %	25.574,25	0,00	25.574,25	170.495,00
Total		1.856.844,40	--	316.201,72	11.476,73	327.678,45	2.184.522,85

Partner		Programme Co-financing		Contribution			Total Budget
Partner Abbreviation	Country	Non-ERDF	Non-ERDF Co-Financing(%)	Public	Private	Total	
BFH - HAFL	SCHWEIZ/SUISSE/SVI ZZERA	0,00	0,00 %	61.893,65	0,00	61.893,65	61.893,65
Total		0,00	--	61.893,65	0,00	61.893,65	61.893,65

D.2 Project budget - overview per partner/ per budget line

Partner	Staff costs	Office and administration	Travel and accomodation	External expertise and services	Equipment	Budget	Revenues	Total budget
IRSTEA	112.199,00	16.829,85	12.830,00	80.000,00	12.000,00	233.858,85	0,00	233.858,85
BRGM	105.435,00	15.815,25	17.900,00	10.700,00	1.200,00	151.050,25	0,00	151.050,25
Alp'Géorisques	53.010,00	7.951,50	11.050,00	1.000,00	3.500,00	76.511,50	0,00	76.511,50
SFS	79.663,00	11.949,45	18.300,00	44.400,00	0,00	154.312,45	0,00	154.312,45
UL	88.186,00	13.227,90	14.850,00	30.000,00	7.700,00	153.963,90	0,00	153.963,90
SFI	117.899,00	17.684,85	11.010,00	2.800,00	9.300,00	158.693,85	0,00	158.693,85
UNIPD	115.000,00	17.250,00	29.500,00	20.600,00	0,00	182.350,00	0,00	182.350,00
DISAFA	96.000,00	14.400,00	20.500,00	11.000,00	11.000,00	152.900,00	0,00	152.900,00
ERSAF	95.200,00	0,00	8.000,00	52.094,00	0,00	155.294,00	0,00	155.294,00
PAT-SFF	81.000,00	0,00	8.000,00	66.000,00	0,00	155.000,00	0,00	155.000,00
POLITO	104.823,00	15.723,45	7.849,00	10.550,00	8.100,00	147.045,45	0,00	147.045,45
BFW	104.204,00	15.630,60	22.982,00	27.771,00	0,00	170.587,60	0,00	170.587,60
BMLFUW	24.800,00	3.720,00	10.940,00	83.000,00	0,00	122.460,00	0,00	122.460,00
LWF	141.300,00	21.195,00	5.000,00	3.000,00	0,00	170.495,00	0,00	170.495,00
BFH - HAFL	44.111,00	6.616,65	10.166,00	1.000,00	0,00	61.893,65	0,00	61.893,65
Total	1.362.830,00	177.994,50	208.877,00	443.915,00	52.800,00	2.246.416,50	0,00	2.246.416,50
% of total budget	60,66 %	7,92 %	9,29 %	19,76 %	2,35 %	100,00 %	0,00 %	100,00 %

D.3 Project budget - overview per period

	Period 0	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Budget	Net revenues	Total budget
Total	20.000,00	364.953,20	404.423,25	477.236,70	374.482,75	371.752,30	233.568,30	2.246.416,50	0,00	2.246.416,50
% of total budget	0,89 %	16,24 %	18,00 %	21,24 %	16,67 %	16,54 %	10,39 %	100,00 %	0,00 %	100,00 %

D.4 Project budget - overview per partner/ per WP

Partner	WP P	WP M	WP T1	WP T2	WP T3	WP T4	WP T5	WP C	Budget	Net revenues	Total budget
IRSTEA	6.000,00	56.935,80	34.706,60	15.554,40	20.315,10	16.636,30	21.106,25	62.604,40	233.858,85	0,00	233.858,85
BRGM	1.000,00	23.510,00	31.995,00	0,00	39.570,00	21.185,00	21.260,00	12.530,25	151.050,25	0,00	151.050,25
Alp'Géorisques	1.000,00	9.330,00	18.150,00	12.815,00	18.500,00	5.705,00	6.602,00	4.409,50	76.511,50	0,00	76.511,50
SFS	1.000,00	29.687,05	12.140,40	22.921,20	24.404,70	16.266,00	34.053,40	13.839,70	154.312,45	0,00	154.312,45
UL	1.000,00	29.121,75	46.494,10	20.523,80	17.226,60	4.655,40	19.143,25	15.799,00	153.963,90	0,00	153.963,90
SFI	1.000,00	26.637,05	32.949,45	12.097,85	30.942,10	31.134,90	10.583,15	13.349,35	158.693,85	0,00	158.693,85
UNIPD	1.000,00	22.500,00	25.000,00	23.850,00	29.450,00	5.750,00	57.450,00	17.350,00	182.350,00	0,00	182.350,00
DISAFA	1.000,00	27.400,00	13.800,00	6.750,00	17.620,00	48.880,00	10.200,00	27.250,00	152.900,00	0,00	152.900,00
ERSAF	1.000,00	21.894,00	24.300,00	26.300,00	24.300,00	26.300,00	17.100,00	14.100,00	155.294,00	0,00	155.294,00
PAT-SFF	1.000,00	11.200,00	15.150,00	20.850,00	50.700,00	19.400,00	27.700,00	9.000,00	155.000,00	0,00	155.000,00
POLITO	1.000,00	25.371,50	32.061,25	24.656,55	18.333,10	0,00	31.108,30	14.514,75	147.045,45	0,00	147.045,45
BFW	1.000,00	29.026,85	20.471,95	28.657,30	23.471,95	17.875,30	21.358,35	28.725,90	170.587,60	0,00	170.587,60
BMLFUW	1.000,00	11.983,75	14.600,00	22.800,00	30.950,00	0,00	21.826,25	19.300,00	122.460,00	0,00	122.460,00
LWF	1.000,00	24.375,00	11.600,00	29.287,50	35.000,00	30.150,00	29.345,00	9.737,50	170.495,00	0,00	170.495,00
BFH - HAFL	1.000,00	14.083,05	7.919,25	13.489,70	7.012,60	3.750,15	5.986,70	8.652,20	61.893,65	0,00	61.893,65
Total	20.000,00	363.055,80	341.338,00	280.553,30	387.796,15	247.688,05	334.822,65	271.162,55	2.246.416,50	0,00	2.246.416,50
% of total budget	0,89 %	16,16 %	15,19 %	12,48 %	17,26 %	11,02 %	14,90 %	12,07 %	100,00 %	0,00 %	100,00 %

D.5 Equipment list per partner

Partner	Equipment description	Budget
IRSTEA	UAV (hexacopter with a payload of 2kg and a set of batteries) for rockfall field surveys and forest stands inventory in endangered areas. This material which guarantees the safety of the operators in risk area, is one of the needed equipment for the building up of the project data base in France (WP T1 & T2), the validation of the produced maps (WP T3) and the topographic and forest data survey in the French case studies (WP T4).	0,00 EUR
	Total	0,00 EUR
IRSTEA	UAV (hexacopter with a payload of 2kg and a set of batteries) for rockfall field surveys and forest stands inventory in endangered areas. This material which guarantees the safety of the operators in risk area, is one of the needed equipment for the building up of the project data base in France (WP T1 & T2), the validation of the produced maps (WP T3) and the topographic and forest data survey in the French case studies (WP T4).	12.000,00 EUR
	Total	12.000,00 EUR
IRSTEA	UAV (hexacopter with a payload of 2kg and a set of batteries) for rockfall field surveys and forest stands inventory in endangered areas. This material which guarantees the safety of the operators in risk area, is one of the needed equipment for the building up of the project data base in France (WP T1 & T2), the validation of the produced maps (WP T3) and the topographic and forest data survey in the French case studies (WP T4).	0,00 EUR

	Total	0,00 EUR
IRSTEA	UAV (hexacopter with a payload of 2kg and a set of batteries) for rockfall field surveys and forest stands inventory in endangered areas. This material which guarantees the safety of the operators in risk area, is one of the needed equipment for the building up of the project data base in France (WP T1 & T2), the validation of the produced maps (WP T3) and the topographic and forest data survey in the French case studies (WP T4).	0,00 EUR
	Total	0,00 EUR
IRSTEA	UAV (hexacopter with a payload of 2kg and a set of batteries) for rockfall field surveys and forest stands inventory in endangered areas. This material which guarantees the safety of the operators in risk area, is one of the needed equipment for the building up of the project data base in France (WP T1 & T2), the validation of the produced maps (WP T3) and the topographic and forest data survey in the French case studies (WP T4).	0,00 EUR
	Total	0,00 EUR
IRSTEA	UAV (hexacopter with a payload of 2kg and a set of batteries) for rockfall field surveys and forest stands inventory in endangered areas. This material which guarantees the safety of the operators in risk area, is one of the needed equipment for the building up of the project data base in France (WP T1 & T2), the validation of the produced maps (WP T3) and the topographic and forest data survey in the French case studies (WP T4).	0,00 EUR
	Total	0,00 EUR
IRSTEA	UAV (hexacopter with a payload of 2kg and a set of batteries) for rockfall field surveys and forest stands inventory in endangered areas. This material which guarantees the safety of the operators in risk area, is one of the needed equipment for the building up of the project data base in France (WP T1 & T2), the validation of the produced maps (WP T3) and the topographic and forest data survey in the French case studies (WP T4).	0,00 EUR
	Total	0,00 EUR
BRGM	Prolaser "rangefinder" with inclinometer for measuring distance / height up to 1000m + small equipment for in-situ investigations. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1).	0,00 EUR
	Total	0,00 EUR
BRGM	Prolaser "rangefinder" with inclinometer for measuring distance / height up to 1000m + small equipment for in-situ investigations. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1).	1.200,00 EUR
	Total	1.200,00 EUR
BRGM	Prolaser "rangefinder" with inclinometer for measuring distance / height up to 1000m + small equipment for in-situ investigations. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1).	0,00 EUR
	Total	0,00 EUR
BRGM	Prolaser "rangefinder" with inclinometer for measuring distance / height up to 1000m + small equipment for in-situ investigations. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1).	0,00 EUR
	Total	0,00 EUR
BRGM	Prolaser "rangefinder" with inclinometer for measuring distance / height up to 1000m + small equipment for in-situ investigations. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1).	0,00 EUR
	Total	0,00 EUR

BRGM	Prolaser "rangefinder" with inclinometer for measuring distance / height up to 1000m + small equipment for in-situ investigations. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1).	0,00 EUR
	Total	0,00 EUR
Alp'Géorisques	Laser telemeter for field surveys. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1, T2).	3.500,00 EUR
	Total	3.500,00 EUR
Alp'Géorisques	Laser telemeter for field surveys. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1, T2).	0,00 EUR
	Total	0,00 EUR
Alp'Géorisques	Laser telemeter for field surveys. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1, T2).	0,00 EUR
	Total	0,00 EUR
Alp'Géorisques	Laser telemeter for field surveys. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1, T2).	0,00 EUR
	Total	0,00 EUR
Alp'Géorisques	Laser telemeter for field surveys. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in France (WP T1, T2).	0,00 EUR
	Total	0,00 EUR
UL	GNSS receiver / sensors for spatial data collection / mapping. Within the project a specific attention will be paid on the added value of satellite data for rockfall risk activity survey, rockfall area mapping forest stands inventory and mapping (WP T1, 2, 3 and 4). For this action a GNSS receiver/sensor is necessary.	3.000,00 EUR
UL	Workstation / powerful desktop computer. The equipment is needed for optimizing the time calculation of the data analysis processes (WP T1, 2, 3 and 4: statistical analysis, modeling, mapping, and satellite data remote sensing)	3.800,00 EUR
UL	Robust tablet for field survey. Rockfall path survey and mapping in the field need to have robust (impact-shock-resistant) tablet for optimizing the data collection and in situ data storage and back up (WP T1, T2, T3 and T4). This tablet will also allow to use satellite data as map base.	900,00 EUR
	Total	7.700,00 EUR
SFI	Scientific field survey laptop computer – in situ field survey data gathering, programming and modeling. Rockfall path survey/ mapping and protection forest survey/risk reduction evaluation in the field need to have robust (impact-shock-resistant) laptop for optimizing the data collection, in situ data storage/ back up and first in situ evaluation by modeling tasks (WP T1, T2, T3 and T4).	0,00 EUR
SFI	Scientific desktop computer for programming, modeling and producing the map for Slovenian AS. Rockfall risk modeling and mapping at the regional scale needs an adapted and dedicated scientific computer which will allow optimizing the time calculation. This equipment will be used in WP T 1, 2, 3 and 4.	0,00 EUR
SFI	4 disks for data storage and storage of final maps (WP T1, 2, 3, 4, 5). The maps production needs modeling and high resolution input data. The storage of the input, output data and of the final maps require an important and dedicated digital storage capacity.	0,00 EUR

SFI	2 GPS equipment for field surveys: these equipment are needed for both rockfall paths and tree/forest stands mapping in WP T1 ,2, 3 and in the Slovenian case studies (WP T 4)	0,00 EUR
	Total	0,00 EUR
SFI	Scientific field survey laptop computer – in situ field survey data gathering, programming and modeling. Rockfall path survey/ mapping and protection forest survey/risk reduction evaluation in the field need to have robust (impact-shock-resistant) laptop for optimizing the data collection, in situ data storage/ back up and first in situ evaluation by modeling tasks (WP T1, T2, T3 and T4).	2.500,00 EUR
SFI	Scientific desktop computer for programming, modeling and producing the map for Slovenian AS. Rockfall risk modeling and mapping at the regional scale needs an adapted and dedicated scientific computer which will allow optimizing the time calculation. This equipment will be used in WP T 1, 2, 3 and 4.	4.000,00 EUR
SFI	4 disks for data storage and storage of final maps (WP T1, 2, 3, 4, 5). The maps production needs modeling and high resolution input data. The storage of the input, output data and of the final maps require an important and dedicated digital storage capacity.	1.500,00 EUR
SFI	2 GPS equipment for field surveys: these equipment are needed for both rockfall paths and tree/forest stands mapping in WP T1 ,2, 3 and in the Slovenian case studies (WP T 4)	1.300,00 EUR
	Total	9.300,00 EUR
SFI	Scientific field survey laptop computer – in situ field survey data gathering, programming and modeling. Rockfall path survey/ mapping and protection forest survey/risk reduction evaluation in the field need to have robust (impact-shock-resistant) laptop for optimizing the data collection, in situ data storage/ back up and first in situ evaluation by modeling tasks (WP T1, T2, T3 and T4).	0,00 EUR
SFI	Scientific desktop computer for programming, modeling and producing the map for Slovenian AS. Rockfall risk modeling and mapping at the regional scale needs an adapted and dedicated scientific computer which will allow optimizing the time calculation. This equipment will be used in WP T 1, 2, 3 and 4.	0,00 EUR
SFI	4 disks for data storage and storage of final maps (WP T1, 2, 3, 4, 5). The maps production needs modeling and high resolution input data. The storage of the input, output data and of the final maps require an important and dedicated digital storage capacity.	0,00 EUR
SFI	2 GPS equipment for field surveys: these equipment are needed for both rockfall paths and tree/forest stands mapping in WP T1 ,2, 3 and in the Slovenian case studies (WP T 4)	0,00 EUR
	Total	0,00 EUR
SFI	Scientific field survey laptop computer – in situ field survey data gathering, programming and modeling. Rockfall path survey/ mapping and protection forest survey/risk reduction evaluation in the field need to have robust (impact-shock-resistant) laptop for optimizing the data collection, in situ data storage/ back up and first in situ evaluation by modeling tasks (WP T1, T2, T3 and T4).	0,00 EUR
SFI	Scientific desktop computer for programming, modeling and producing the map for Slovenian AS. Rockfall risk modeling and mapping at the regional scale needs an adapted and dedicated scientific computer which will allow optimizing the time calculation. This equipment will be used in WP T 1, 2, 3 and 4.	0,00 EUR
SFI	4 disks for data storage and storage of final maps (WP T1, 2, 3, 4, 5). The maps production needs modeling and high resolution input data. The storage of the input, output data and of the final maps require an important and dedicated digital storage capacity.	0,00 EUR
SFI	2 GPS equipment for field surveys: these equipment are needed for both rockfall paths and tree/forest stands mapping in WP T1 ,2, 3 and in the Slovenian case studies (WP T 4)	0,00 EUR
	Total	0,00 EUR

SFI	Scientific field survey laptop computer – in situ field survey data gathering, programming and modeling. Rockfall path survey/ mapping and protection forest survey/risk reduction evaluation in the field need to have robust (impact-shock-resistant) laptop for optimizing the data collection, in situ data storage/ back up and first in situ evaluation by modeling tasks (WP T1, T2, T3 and T4).	0,00 EUR
SFI	Scientific desktop computer for programming, modeling and producing the map for Slovenian AS. Rockfall risk modeling and mapping at the regional scale needs an adapted and dedicated scientific computer which will allow optimizing the time calculation. This equipment will be used in WP T 1, 2, 3 and 4.	0,00 EUR
SFI	4 disks for data storage and storage of final maps (WP T1, 2, 3, 4, 5). The maps production needs modeling and high resolution input data. The storage of the input, output data and of the final maps require an important and dedicated digital storage capacity.	0,00 EUR
SFI	2 GPS equipment for field surveys: these equipment are needed for both rockfall paths and tree/forest stands mapping in WP T1 ,2, 3 and in the Slovenian case studies (WP T 4)	0,00 EUR
	Total	0,00 EUR
SFI	Scientific field survey laptop computer – in situ field survey data gathering, programming and modeling. Rockfall path survey/ mapping and protection forest survey/risk reduction evaluation in the field need to have robust (impact-shock-resistant) laptop for optimizing the data collection, in situ data storage/ back up and first in situ evaluation by modeling tasks (WP T1, T2, T3 and T4).	0,00 EUR
SFI	Scientific desktop computer for programming, modeling and producing the map for Slovenian AS. Rockfall risk modeling and mapping at the regional scale needs an adapted and dedicated scientific computer which will allow optimizing the time calculation. This equipment will be used in WP T 1, 2, 3 and 4.	0,00 EUR
SFI	4 disks for data storage and storage of final maps (WP T1, 2, 3, 4, 5). The maps production needs modeling and high resolution input data. The storage of the input, output data and of the final maps require an important and dedicated digital storage capacity.	0,00 EUR
SFI	2 GPS equipment for field surveys: these equipment are needed for both rockfall paths and tree/forest stands mapping in WP T1 ,2, 3 and in the Slovenian case studies (WP T 4)	0,00 EUR
	Total	0,00 EUR
SFI	Scientific field survey laptop computer – in situ field survey data gathering, programming and modeling. Rockfall path survey/ mapping and protection forest survey/risk reduction evaluation in the field need to have robust (impact-shock-resistant) laptop for optimizing the data collection, in situ data storage/ back up and first in situ evaluation by modeling tasks (WP T1, T2, T3 and T4).	0,00 EUR
SFI	Scientific desktop computer for programming, modeling and producing the map for Slovenian AS. Rockfall risk modeling and mapping at the regional scale needs an adapted and dedicated scientific computer which will allow optimizing the time calculation. This equipment will be used in WP T 1, 2, 3 and 4.	0,00 EUR
SFI	4 disks for data storage and storage of final maps (WP T1, 2, 3, 4, 5). The maps production needs modeling and high resolution input data. The storage of the input, output data and of the final maps require an important and dedicated digital storage capacity.	0,00 EUR
SFI	2 GPS equipment for field surveys: these equipment are needed for both rockfall paths and tree/forest stands mapping in WP T1 ,2, 3 and in the Slovenian case studies (WP T 4)	0,00 EUR
	Total	0,00 EUR

DISAFA	Tree-ring analysis chain (binoculars, software, computer) for rockfall spatio-temporal activities reconstruction. Trees are “silent witnesses” which record in their tree ring information on past event such as rockfall. It is possible to date the events according to the injuries in the tree rings. These info are requested for having a better understanding of rockfall activities in forested slopes. This dendrogeomorlogical approach will be used in the different case studies of the project. This equipment will be used in WP T1, 2 and 4.	0,00 EUR
	Total	0,00 EUR
DISAFA	Tree-ring analysis chain (binoculars, software, computer) for rockfall spatio-temporal activities reconstruction. Trees are “silent witnesses” which record in their tree ring information on past event such as rockfall. It is possible to date the events according to the injuries in the tree rings. These info are requested for having a better understanding of rockfall activities in forested slopes. This dendrogeomorlogical approach will be used in the different case studies of the project. This equipment will be used in WP T1, 2 and 4.	11.000,00 EUR
	Total	11.000,00 EUR
DISAFA	Tree-ring analysis chain (binoculars, software, computer) for rockfall spatio-temporal activities reconstruction. Trees are “silent witnesses” which record in their tree ring information on past event such as rockfall. It is possible to date the events according to the injuries in the tree rings. These info are requested for having a better understanding of rockfall activities in forested slopes. This dendrogeomorlogical approach will be used in the different case studies of the project. This equipment will be used in WP T1, 2 and 4.	0,00 EUR
	Total	0,00 EUR
DISAFA	Tree-ring analysis chain (binoculars, software, computer) for rockfall spatio-temporal activities reconstruction. Trees are “silent witnesses” which record in their tree ring information on past event such as rockfall. It is possible to date the events according to the injuries in the tree rings. These info are requested for having a better understanding of rockfall activities in forested slopes. This dendrogeomorlogical approach will be used in the different case studies of the project. This equipment will be used in WP T1, 2 and 4.	0,00 EUR
	Total	0,00 EUR
DISAFA	Tree-ring analysis chain (binoculars, software, computer) for rockfall spatio-temporal activities reconstruction. Trees are “silent witnesses” which record in their tree ring information on past event such as rockfall. It is possible to date the events according to the injuries in the tree rings. These info are requested for having a better understanding of rockfall activities in forested slopes. This dendrogeomorlogical approach will be used in the different case studies of the project. This equipment will be used in WP T1, 2 and 4.	0,00 EUR
	Total	0,00 EUR
DISAFA	Tree-ring analysis chain (binoculars, software, computer) for rockfall spatio-temporal activities reconstruction. Trees are “silent witnesses” which record in their tree ring information on past event such as rockfall. It is possible to date the events according to the injuries in the tree rings. These info are requested for having a better understanding of rockfall activities in forested slopes. This dendrogeomorlogical approach will be used in the different case studies of the project. This equipment will be used in WP T1, 2 and 4.	0,00 EUR
	Total	0,00 EUR
DISAFA	Tree-ring analysis chain (binoculars, software, computer) for rockfall spatio-temporal activities reconstruction. Trees are “silent witnesses” which record in their tree ring information on past event such as rockfall. It is possible to date the events according to the injuries in the tree rings. These info are requested for having a better understanding of rockfall activities in forested slopes. This dendrogeomorlogical approach will be used in the different case studies of the project. This equipment will be used in WP T1, 2 and 4.	0,00 EUR
	Total	0,00 EUR

POLITO	Sensors fo uav uses and softwares for field survey, carrying out analyses and maps conceiving. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in Italy (WP T1 & T2) and the validation of the produced maps (WP T3).	8.100,00 EUR
	Total	8.100,00 EUR
POLITO	Sensors fo uav uses and softwares for field survey, carrying out analyses and maps conceiving. This material which guarantees the safety of the operators in risk area is one of the needed equipment for the building up of the project data base in Italy (WP T1 & T2) and the validation of the produced maps (WP T3).	0,00 EUR
	Total	0,00 EUR

D.6 Flat rates overview per partner

Partner	Staff costs (20 % of direct costs excepted staff costs)	Office and administration (15 % of staff costs)
IRSTEA	no	yes
BRGM	no	yes
Alp'Géorisques	no	yes
SFS	no	yes
UL	no	yes
SFI	no	yes
UNIPD	no	yes
DISAFA	no	yes
ERSAF	no	no
PAT-SFF	no	no
POLITO	no	yes
BFW	no	yes
BMLFUW	no	yes
LWF	no	yes
BFH - HAFL	no	yes