

Who	Context (Plan)	What (Task)	How (tools, methods)	Priority	Comment from User perspective
Regional authority	Prevention	Check hazard map update needs	Guidelines	1	Hazard maps are static - they should be checked continuously to make them more dynamic
Regional authority	Prevention	Check contingency plan update needs	Guidelines	1	CPs must be dynamic
Hazard mapper	Hazard assessment	Prepare hazard map	Regional / national Guidelines Simulation models Event cadastre	2	
Regional authority	Prevention	Assign hazard mapper (with hazard assessment)	Order	3	
Hazard mapper	Hazard assessment	Define event scenarios	Scenario Manager	3	We defined typical events along the railway track in the testbed (flood, torrents, avalanches)
Hazard mapper	Hazard assessment	Link event scenarios to hazard map objects	Scenario manager	3	
Hazard mapper	Hazard assessment	Evaluate alternative hazard related measures	Scenario manager (+ measure related rules/models → DSS)	4	
Civil protection authority	Risk assessment	Assess vulnerability of elements at risk	GIS model	3	
Civil protection authority	Risk assessment	Calculate risk	GIS model	3	
Civil protection authority	Risk assessment	Link elements at risk to GIS objects	GIS	3	
Contingency planner	Contingency planning	Communicate scenarios to stakeholders	CSA web tool (scenario manager content)	1	
Contingency planner	Contingency planning	Collect contingency plan base information	GI tools, used according to INSPIRE / MONITOR II standards	1	
Contingency planner	Contingency planning	Prepare site inspection	CSA web tool (scenario manager content)	2	CSA can be used for inspections of technical counter measures, the coordinates are useful
Contingency planner	Contingency planning	Perform site inspection	Documentation manager: mobile tool	2	We need a powerful and robust mobile tool (rugged)
Contingency planner	Contingency planning	Evaluate alternative measures for capacity strengthening	Scenario manager (+ measure related rules/models → DSS)	3	
Contingency planner	Contingency planning	define contingency plan (flow-chart)	Contingency manager	2	
Contingency planner	Contingency planning	define contingency plan (all tools)	Contingency manager	2	
Contingency planner	Contingency planning	Review contingency plan	CSA web-tool with annotations	3	
Contingency planner	Contingency planning	Communicate contingency plan	CSA web-tool, meetings	3	
Contingency planner	Contingency plan implementation	Train contingency plan	Training material	3	frequent trainings are necessary
Contingency planner	Contingency plan implementation	Define and guide contingency exercises		3	
Instrumentation manager	Danger assessment	Install monitoring and early-warning systems	CSA core: sensor web components		
Civil protection authority, scientist	Danger assessment	Complement sensor network	CSA core: sensor web components (sensor planning service)	1	We are working with different kinds of sensors (meteorological, geotechnical,...). Planning and choosing the right sensor is important
Civil protection authority, scientist	Danger assessment	Increase measurement density	CSA core: sensor web components	1	We need a more dense network of rain gauges and snow gauges to make local forecasts
Civil protection authority, scientist	Danger assessment	Spatial information fusion	GI interpolation models	1	
Observation staff	Danger assessment	Observe (observation points, observation routes)	Documentation manager: mobile tool	2	
Civil protection authority	Danger assessment	Forecast situation	Simulation and forecast models	1	Forecast time is important
Civil protection authority	Danger assessment	Visualise sensor data	CSA core: sensor web components	1	For trend analyses it is easier to work with visualized data
Civil protection authority	Danger assessment	check ongoing scenario	CSA core: rules	1	
Civil protection authority	Danger assessment	Generate danger map (current, forecast)	CSA core: rule-based situation map	2	
Civil protection authority	Danger assessment	check land movement		3	
Civil protection authority	Danger assessment	check movement predictions		3	
Civil protection authority	Warning	Communicate warnings to operational units	CSA core: sensor alert services	1	The communication of alerts must be secure, documented and redundant
Civil protection authority	Warning	Receive automatic alert/alarm notification	CSA core: sensor alert services	1	
Strategic command	Intervention	Generate and update Common Operational Picture (COP)		2	
Civil protection authority	Intervention	Start and monitor evacuation		3	
Tactical command	Intervention	??? not yet defined			
Relief unit operator	Intervention	Use measure leaflet in the field (electronic device?)	Contingency manager – measure leaflet	3	
Relief unit operator	Intervention	??? not yet defined	CSA mobile tool (?)		
Observer, helper	Intervention	Document event process/effects	Documentation manager: mobile tool	2	
Documenter	Documentation	Document event effects	Documentation manager: mobile tool	2	
Civil protection authority	Documentation	Report sensor information	Documentation manager: report tool	1	sensor data must be documented over the whole period of an event

Partner	Priority requirement	User	CORE	Sensor	Scenario	Mobile	CP	DocReport	Module	Data needed
OEBB	Trans-regional controlling of situation in emergency case; e.g. integrate information from staff on-site, LWZ(x9), nation; control teams outside	Internal, headquarter							CSA core (sensor manager)	Sensor in-situ, notifications
OEBB	Information for the people outside about event / situation, so that they can plan their resources. Must be informed right in time. Mobile tool or at least SMS, ... (alarms, warnings, pre-alarms, local/regional forecasts ...).	Technical staff on site							CSA core (communication, documentation)	Situations classified
OEBB	Integrated view of all relevant information, e.g. weather information, weather forecasts, measurement stations. In local centre.	Control centre								
OEBB	Integrate flooding hazard maps (continuously improving scale/quality) and link it to online gauge information for warning.	Control centre								
OEBB	Integrate aggregated relevant natural hazards information into Traffic control centre of ÖBB; should be reduced to basic action relevant situation information. Should be compatible at least on services level.	Control centre								
LP	Scenario manager to define scenarios on top of hazard maps.	Hazard mapper							Scenario manager	Hazard map
LP	Easy understandable way of presentation of scenarios to third parties.	Hazard mapper and risk managers							Scenario manager	Scenario data
LP	Scenarios defined should be exportable in written form (report), to be included in "Gutachten", ...	Hazard mapper							Scenario manager	Scenario data
PP13	Mobile device, easy to use, usable out in the field in case of emergency. Data collection in the field (fast, accurate), examples are windthrow, torrent causing mudslides (all kinds of natural hazards); both documentation ("Meldung") close to event + documentation ex post	250 local foresters							Documentation manager (mobile)	Topographic data, former events
PP13	Devices should be easily adapted to the needs of users and easily integrated into existing IT frameworks.	250 local foresters							Documentation manager (mobile)	
PP13	Mobile devices should be suitable for all weather conditions, ruggedised (including winter conditions with gloves)	250 local foresters							Documentation manager (mobile)	
SRB	Data collection concerning new laws; plans for flood protection + torrents. Prepare situation								GIS	
SRB	Assure communication by shorten communication / direct communication (not via centre in Belgrade).								???	
SRB	Application of contingency plan in real-time, related to the duration of emergency situation.								???	
SRB	Integrate information (knowledge) of local population ("black points"), fotos, knowledge about danger (Web Tools or mobile tools).	Local population							CSA core as "Social Web" Tool for annotated information collection by public. Mobile tool for interviewer (collect information directly during interviews with local population)	Topographic data, former events. Existing hazard maps.
BG	May: stakeholder meeting. Tools for collecting data for floods / forest fires (base data for hazard maps).	Fire brigade, local authority,							GIS with pre-defined structures (e.g. austrian wlv cadastre)	GIS base
BG	Tools for collecting monitoring data.	Fire brigade, local authority,							Sensor manager	
BZ	Automatisation of situation assessment, with control of human operator (break/stop the work-flow). Depends on type of action (internal alert vs. external alert, warning level), depends on the knowledge and depends on level of system.	Regional services							CSA core (rule engine for situation assessment), based on sensor manager	All kinds of quality assured sensor data
BZ	Allow work-flows to define when alert, warning will be reached.								CSA core (work-flow engine in interaction with rule engine)	CSA situations + structured work-flows
BZ	Provide public information, based on CORE CSA (but reduced, aggregated, generalised).	Rescue services, population							Stand-alone web-viewer, feeded by CSA core (generalised situation information)	CSA situations
BZ	System should be coherent will all types of risk (not reduced to natural hazards).	Regional services							CSA core (generalised abstracted architecture)	
GR	Trans-national application in field exercise with Bulgaria.	Regional services							ALL (?)	
SLO	Different scenario models within flood maps in test-beds (4 municipalities).	Hazard mapper							Scenario manager	
SLO	Communication of scenarios for interaction with hazard mappers.	Local authority, Civil protection authority (Celje)							Scenario manager	
ROM	Integrate existing information into coherent level.	Local authority, local population							CSA core (rule based integration ?)	
MOD	Harmonise sensor data from different (existing) sensor systems.	Scientist, regional authority							Sensor manager	
MOD	Integrate sensor data from different sources + provide sensor data.	Scientist, regional authority							Sensor manager	

Priority need defined by partner. Requirement already considered within CSA specification.
 Priority need defined by partner. Requirement not yet considered within CSA specification.
 Secondary (derived) requirement. To be defined in more detail.
 No priority need defined