Deliverable

D8.1 Update PEDR

Deliverable information	
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Summary

This first Plan for the Exploitation and Dissemination of the project's Results (PEDR) defines the metrics to measure the RISE project's impact. PEDR is our master plan to maximise the demonstrable, long-term socio-economic impact and to achieve a measurable increase in the resilience of our societies against the threat of earthquakes. A set of measures, metrics, and formats will be established to promote RISE activities and define their success. They are described in detail in the following sections.

For quantitative measurements, the following metrics are considered: website users, Twitter followers, newsletter subscribers, publications, and number of participants of stakeholder exchange. For the qualitative impact, we are planning to collaborate closely with the projects work package leaders to investigate individual impact of each WP with regards to science, society, technology, and economy, starting in M12.

1. Stakeholders and end-users

Exploitation and dissemination are indispensable to enable and ensure knowledge transfer. This includes interaction with industrial partners, governmental organizations, data and services providers, scientific community, general public and media. Different communication and dissemination measures are used for different target groups. The following table indicates the relevance of different communication and dissemination measures for the main stakeholders and end-users of RISE outputs.

	INTERNAL COMMUNICATION	INFORMATION ABOUT ACCESS TO DATA & SERVICES	WORKSHOPS	SCIENTIFIC PUBLICATIONS	SCIENTIFIC SUMMARIES	PROJECT NEWS	DELIVERABLES
PROJECT PARTICIPANTS	X	X	X	X	X	X	X
EC		X		X		X	X
DATA AND SERVICE PROVIDERS		X					
GOVERNMENTAL ORGANIZATIONS		X			X		
SCIENTIFIC AND ENGINEERING COMMUNITY		X		X	X	X	
INDUSTRY		X	X		X	X	
GENERAL PUBLIC AND MEDIA		X			X	X	

Table 1: Relevance of different communication measures for main target groups of RISE

According to their needs and interest RISE will develop, offer, and promote different products and services as well as support knowledge exchange.

2.   External communication activities

We use a number of communication tools targeted at different audiences, such as project website, external newsletter, social media (e.g. Twitter), best practice reports, special issue publications, training workshops. The tables below summarize the main communication activities and their target audiences.

Some of these communication tolls are already established for the RISE project (project website, draft of the first newsletter, twitter account) and others will be formed as the project evolves and the first set of results are achieved (good practice reports, conference presentations etc.).

An introduction to the RISE website and the first newsletter can be found in the deliverable D.1.1 (Project Management Plan, due M3). In RISE we also establish internal communication tools such as RISE intranet, which is explained in more detail on D1.1 and an internal newsletter.

2.1   RISE website and twitter account

RISE website was launched in September 2019 by WP8. External website is used for sharing relevant project information, dissemination materials and linking to the internal website. The RISE website promotes visibility and transparency towards stakeholders. It contains a number of sections including news and events, project results, reports, publications, deliverables. The full content of the website is ready and accessible on www.rise-eu.org. The website is regularly updated by WP8. Below is a screenshot of RISE Website.

Additionally, we created a Twitter account where we will share project updates, interesting news, available open positions, etc. RISE Twitter account is @research_RISE. RISE Communications team maintains both the website and the twitter account, gathers the relevant information and publishes them.
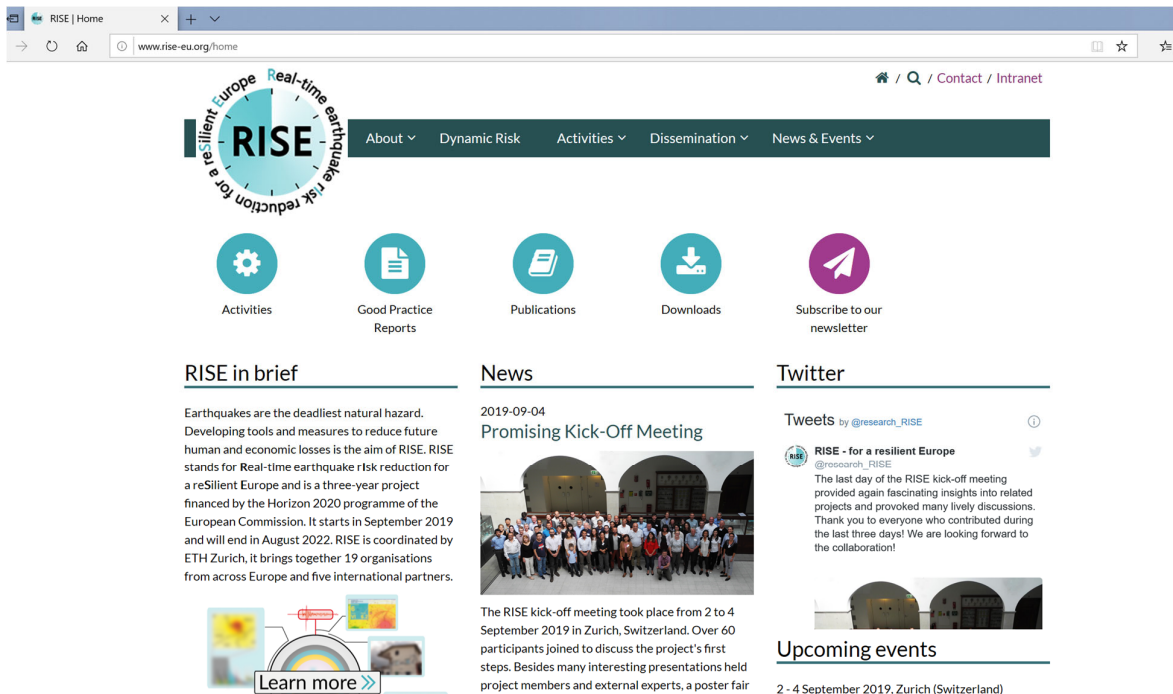

Figure 4. Screenshot of RISE Website

2.2   RISE internal newsletters

Internal newsletters targets project members and intend to strengthen RISE internal communication. A typical internal newsletter contains information related but not limited to:

- Organizational matters
- WP updates
- Past and Upcoming Meetings
- Miscellaneous project information
- Calendar

The first internal newsletter will be released in M3. Figure below shows a snapshot of the first RISE Internal Newsletter. An internal newsletter will be published every 4 months during the RISE project.

Internal newsletter #1

The RISE project was kicked off in September 2019 and the activities are now gaining momentum. This internal newsletter, published three times a year, will update you on what is happening in different project tasks, share with you results, events, open positions, and more. In addition, each internal newsletter will focus on one Work Package and introduce you to some of the key people of that WP. WP1: Management makes the start this time. In order to be able to

2.3   RISE external newsletters

RISE external newsletters target all interested stakeholders and aims at communicating project updates and progress. It will cover information on WPs, meetings, calendar and any miscellaneous topic that RISE community wants to share with the public. Each issue will cover a different topic of RISE research and will release information suitable for non-expert readers. An external newsletter will be published once a year during RISE project. RISE newsletters are published by WP8.

2.4 Good practice reports

RISE will compile a series of at least five good practice reports based on RISE deliverables. They will be compiled into a homogenized online library of open access reports and will be made available for browsing on the RISE website. Each good practice report will undergo an internal peer review. The reports will be written with an end-user perspective in mind. As they form an important legacy of RISE, planning already started.

2.5 RISE training workshops

RISE will also offer three training workshops to selected groups of stakeholders:

- A 3-day workshop focused on training of young scientists in interdisciplinary and dynamic risk assessment, presenting introductions to the methodologies, and tools. This workshop will be hosted in the form of a summer or winter school.

- A two-day workshop focused on good practice for end-users from governmental and regulatory agencies, including civil defence offices and national services from around Europe. The focus will be to introduce capabilities and limitations of real-time earthquake risk assessment as a tool for more resilient societies.

- A one-day workshop focused on exploitation of business opportunities and applications with users from industry. This includes hardware/sensor manufacturers, software and App developers, and also insurance companies.

2.6 RISE special issue

Following the successful example of REAKT, the key lessons learned in RISE and recommendations for future research, development and implementation will be published as a special volume in a relevant journal (e.g., Bulletin of Earthquake Engineering). This will represent in a comprehensive format the legacy of RISE for the scientific and engineering communities. The RISE final conference will be designed as a public 2.5-day workshop in the tradition of the acclaimed Lenzburg PSHA or Schatzalp induced seismicity workshops previously organised by the coordinator of RISE. We will bring together about 170 of the leaders from around the world in the domain of real-time risk assessment for an exchange of the state-of-the-art and future directions.

2.7 Presentations and publications

Publications in high quality peer reviewed international journals or conference proceedings remain a major output of RISE that will have a lasting impact on the physical sciences, engineering and social science communities. RISE brings together many of the most productive and most-cited scientists in their respective domains and we anticipate that no less than 100 publications will result from the RISE activities. We will also sponsor at least three dedicated sessions at international conferences.

2.8 Overview of the main external communication activities

RISE website www.rise-eu.org	
Responsibility	ETH Zurich
Task	Setup and updates of website www.rise-eu.org. The website is the main external communication tool of RISE.
Function	Access to project information, current developments and achievements, contact and other useful information
Target groups	Everyone
Success factor	Website traffic, number of page views, document downloads, and feedback received
Tool	OpenCMS

External newsletter	
Responsibility	ETH Zurich
Task	Regularly distribution (month 3, 12, 24, 36) of an external newsletter: create template, plan content, edit newsletter
Function	Provide deeper insights to the project (compared to news on the website), spread knowledge, inform about achievements of RISE
Target groups	EC, data and service providers, governmental organizations, scientific and engineering community, industry, interested public.
Success factor	Growing of mailing list, opening and click rate, feedback
Tool	Mailchimp

Social media	
Responsibility	ETH Zurich
Task	Post project news and relevant information about related projects (e.g. conferences). Minimum: liking and retweeting updates once a week. Follow accounts from partners and related projects
Function	Visibility; inform when RISE participants give talks in conferences, publish a paper, or had a successful collaboration
Target groups	Data and service providers, governmental organizations, scientific and engineering community, industry
Success factor	Followers, frequency of posts
Tool	Twitter

Best practice reports	
Responsibility	ETH Zurich
Task	Editing and designing good practice guidelines, coordinating best practice reports At least five good practice reports will be compiled based on RISE deliverables and be made available to browse and download on the RISE and EFEHR websites. The best practice reports will be updated and continued even after the project as part of EPOS.
Function	Visibility, provide access to preliminary results
Target groups	Governmental organizations, scientific and engineering community
Success factor	Number of publications
Tool	Word template

Training workshops	
Responsibility	ETH Zurich
Task	Offering three training workshops to selected groups of stakeholders: • **Young scientists in interdisciplinary and dynamic risk assessment**: 3-day workshop presenting introductions to the methodologies and tools. Hosted in the form of a summer or winter school • **End-users**: two-day workshop focused on good practice for end-users from governmental and regulatory agencies, including civil defence offices and national services from around Europe. The focus will be to introduce capabilities and limitations of real-time earthquake risk assessment as a tool for more resilient societies • **Industry**: A one-day workshop focused on exploitation of business opportunities and applications with users from industry. This includes hardware/sensor manufacturers, software and app developers, and insurance companies.
Function	Visibility
Target groups	Scientific and engineering community
Success factor	Number of workshops, number of participants

Presentations at conferences	
Responsibility	ETH Zurich, all
Task	Connect with scientists from other fields; dissemination of scientific results
Function	Visibility
Target groups	Scientific and engineering community
Success factor	Increased collaboration, growing newsletter mailing list

Special issue	
Responsibility	ETH Zurich
Task	Towards the end of the project, a special issue will be created in a journal (to be determined) to demonstrate and summarize all of the project's results and progress. The special issue could either be a full RISE-only issue or an issue dedicated to a RISE-related topic where we provide inputs from each work package.
Function	Provide information to all relevant stakeholder, visibility
Success factor	Number of contributions, depending on journal: number of reads
Target groups	Scientific and engineering community

Final conference	
Responsibility	ETH Zurich
Task	Organise the final conference, designed as a public 2.5-day workshop in the tradition of other acclaimed workshops previously organised by the coordinator of RISE. We will bring together about 170 of the leaders from around the world in the domain of real-time risk assessment for an exchange of the state-of-the-art and future directions.
Function	Visibility, provide access to results
Target groups	EC, governmental organizations, scientific and engineering community, industry
Success factor	Number of participants, number of presentations

3.   RISE products and services

RISE will develop, establish, and provide numerous products and services. To unfold their potential, they need to be relevant for interested stakeholders and advertised within those communities. The latter is ensured in form of the different external communication measures and activities described before.

The following products and services will be made available until the end of the project. Each of these achievements will be documented in a dedicated milestone or deliverable.

	Short description of products and services provided by RISE	Relevant milestones and deliverables
OEF output format testing capabilities	OEF testing capabilities already exist (CSEP 1); operation capabilities are under development (RT-RAMSIS). Input and output parameters and formats will be homogenized, extended, implemented in the respective platforms, and documented for model contributors.	MS 22: OEF output format for testing 8.7: EU forecast testing centre operational
Description of standards for dynamic risk services	A whitepaper will be collaboratively designed describing preferred technical and outreach solutions.	MS 56: Community agreement on requirements and technical baseline for dynamic risk service standardisation D. 8.4: Description of standards for dynamic risk services MS 57: First version of standardised exchange protocol released
Harmonized platform for OEF forecasts and ensemble models	This task brings together the achievements made in other RISE work packages namely WP3 and WP6. It builds on the different preceding milestones. Suggested to extend the currently developed RT-RAMSIS platform for time-dependent induced seismicity to time-dependent natural seismicity	D 8.6: Harmonised platform for OEF forecasts and ensemble models
RLA software; including operational setup for Europe	Integration of Shakemap (extended for probabilistic path effects) with OpenQuake Risk stage.	D 8.8: EU RLA service operational
Establishing operational capability of services	Ensuring operational service for the EU forecasting centre, RLA, and OEF. This sets the basis for being able to establish dynamic risk services within EPOS and in Italy and Switzerland.	MS 18: Finalisation of the whitepaper and selection of the preferred technical solutions D 8.5: Report on the sustainable operation of dynamic risk services within EPOS
OEF infrastructure and services set up for Switzerland and Italy	Operative set-up of the " Harmonized platform for OEF forecasts and ensemble models", amended with public displays for the results, and (to be decided) threshold based alerting	D. 8.9: OEF services in Italy, Switzerland and Europe wide operational
Operational dynamic risk services in Italy and Switzerland	In each of these countries, a dynamic risk service has to be made available until the end of the project.	MS 43: Dynamic risk services for Switzerland operational

4.   Stakeholder panels

The knowledge generated as well as the products and services developed within RISE are only useful and successful when they meet future end-users needs. We aim at translating RISE outputs and deliverables into tangible products and services, useful for and used by a wide range of stake-holders. While the external communication activities mainly focus on informing the RISE commu-nity, our stakeholders and end-users; the stakeholder panel aims at establishing a dialogue with exponents of these communities.

To establish a European stakeholder panel and simultaneously ensure dialogue on a national level, RISE will proceed successively.

At first, national stakeholder panels in Switzerland and Italy shall be established. Switzerland will make a start and explore and test how to best organize such a panel and draw first lessons learned.

In Switzerland, the major stakeholders we are in contact with are Swiss Federal Railways, Swiss Civil Defence, Federal Office of Energy, Federal Office of the Environment, Cantonal civil defence Basel and the Valais, Swissnuclear, chemical industries, Schindler elevators and National building insurance. Discussion with members of the stakeholder panel have started, but they will require a little more time. The final composition of the national Swiss Stakeholder Panel will be determined by month 8 (MS 42 due M8).

Based on these experiences, Italy will follow and establish a dialogue with their key stakeholders from national civil defence organizations, industries, critical facilities, media, insurances, and tel-ecommunication. Based on the result of the discussion, a second national panel towards the end of the project will be scheduled.

Second, the RISE partners will be asked to nominate European delegates to participate at a final stakeholder panel, which will base on the experiences and results of the stakeholder panels in Switzerland and Italy.

The format of all stakeholder panels will be a workshop, where the different products and services developed within RISE will be presented and discussed. Besides technical aspects, social ac-ceptance and communications will be in the focus of the dialogue. Therefore, RISE will make use of its interdisciplinary capabilities to organize and conduct these workshops.

Timeline for the stakeholder panels:

M6	Swiss stakeholder panel established
M7	Swiss stakeholder panel conducted
M9	Italian stakeholder panel established
M12	Italian stakeholder panel conducted
M24	European stakeholder panel established
M36	European national stakeholder panel conducted

5.   Key performances indicators

5.1   Quantitiative key perfomance indicators

To define the impact of RISE in a quantitative way, different key performance indicators are assessed. A suitable metric highlights a specific project contribution. In combination, the metrics chosen shall reflect the project's impact in its entity. In the following, these metrics as well as targeted impact goals to be reached until M12, M24, and M36 are described.

Key performance indicator(s)	Quantitative goal	Impact
Number of unique website visitors	Monthly average: 500 M12:6'000 total unique visitors M24: 12'000 total unique visitors M36: 18'000 total unique visitors	The project's website displays all of the projects results, features, progresses, and other contributions in detail. It is the most complete representation of the project. It is therefore vital to measure the number of visitors as this correlates on one hand with society's interest in the project and on the other hand with the level of distribution of the project's progress.
Number of Twitter followers	M12: 100 followers M24: 250 followers M36: 300 followers	Twitter has taken on an important role in the science community. It is a useful tool to communicate findings, ideas, and more to a very diverse audience. Where other distribution points might be targeting mostly the already interested or involved scientific community, it is possible to reach other readers as well via Twitter. The microblogging service also provides the possibility of direct participation in the project as followers can share posts, ask questions and interact with the project team. The same accounts for the project's stakeholders: as tweets are limited to 280 characters, the information entailed must be formulated in a concise, accessible way that is then consequentially suitable even for non-expert readers. The number of followers then also illustrates the public's interest in the project, which can then vouch for RISE's perceived relevance.
Number of external newsletter subscribers	M12: 100 subscribers M24: 200 subscribers M36: 250 subscribers	The interested public as well as the project's stakeholders can subscribe to the newsletter. The number of subscribers is therefore another indicator for the public's interest and the project's relevance. The number of subscribers can also interpret the reach of RISE and illustrate the people that we can present a deeper insight into the developments and progress of the different tasks and work packages.
Number of publications in scientific journals	M12: 20 publications M24: 30 publications M36: 100 publications	Being an interdisciplinary project, RISE will have an impact in many different areas of research. Inside these research communities, communicating (preliminary) results via contributions to renowned journals is vital to underline the project's viability. The more publications the project members release, the more varied the project's findings can be regarded as.
Participants of stakeholder exchange	Until M36: Workshops: 3 Presentations: 50 Other exchange opportunities: 5	RISE members will not only participate in but also organise workshops (see task 8.4). The number of participants of RISE workshops indicate the research community's and the general public's interest in the project. The more people are interested, the higher of an impact can be achieved. During conferences, RISE members will participate in discussions and present the RISE results. Both will help to make the project more visible in the science community.

5.2   Qualitative key performance indicators

This section will contain reports from all work package leaders, describing the impact achieved during the last reporting period with regards to science, society, technology, and economy. In particular, they will be promoted to develop means to describe, and if possible to quantify, the benefits and costs of their activities for different timescales and potential users.

As this deliverable is due in M3, the work package leaders have not yet been able to achieve enough to write a useful report. This section will therefore be featured for the first time in D8.1 "Update PEDR (M12)".