

April 2023



www.ecorisq.org

Our goal

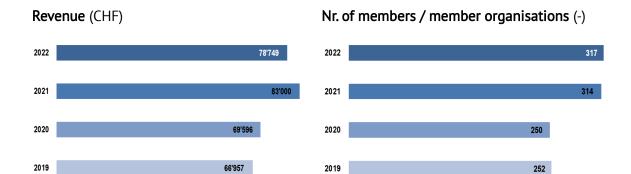
To promote sustainable, where possible nature-based protection against natural hazard risks by bringing together science and practice for the development and dissemination of transparent tools for natural hazard and risk analyses.

Our activities

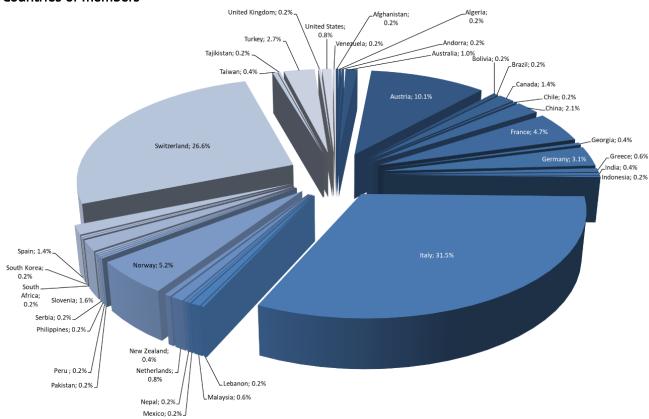
- creating and governing an international network for natural hazard risk management experts
- facilitating exchange of knowledge and dissemination of innovative transparent tools
- initiating and supporting research and development projects in fields relevant for the association.
- standardising methodologies and assisting in respective international debates

Our Q

- Quality we aim for standards of high professionalism
- Quantified we work on the basis of facts and sound scientific knowledgw
- Quartermaster we provide and explain inventive tools
- Quaternary we cover short and long time scales, but also small and large areas



Countries of members



Member types

	2022	2021	2020	2019
Private sector	63%	60%	59%	58%
Universities / schools	22%	24%	22%	22%
Research institutes	2%	4%	3%	5%
Administration	8%	8%	10%	10%
Other (non-professionals, NGO,)	5%	4%	6%	5%

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I DEW Z	Budget (in CHF)	Association affairs: General Assembly	Association affairs: Registration / memberships	Association affairs: Hardware/Software	External mandate: Association administration	External mandate: PR & communication	External mandate: Translation manual	External mandate: R&D projects	External mandate: Website development	External mandate: Website hosting Bank charges	1.	Membership contributions	Projects	Meeting registrations	Funding/subsidies/donations Training courses	Sponsoring	7	Total expenses	Total income	Reserve preceding year	1	たが			

Activities 2022

Tool development

In 2022, we started developing a tool that support defining rockfall volume release scenarios for a given rock face, based on structural geological observations and measurement of deposited volumes on the underlying talus slope. Secondly, we initiated the development on an energy line based spatially explicit runout model of rock mass falls (RockavELA). Furthermore, the work on SlideforMAP, (for spatially explicit assessment of the disposition of shallow landslides) and BankforMAP (for spatially explicit bank erosion assessment) continued. RockforNET, the easy to use tool for assessing the degree of protection of a forest regarding rockfall and for providing the target profile (minimum and ideal) of such a forest, has also been improved.



Bank erosion-damaged Coquihalla Highway in B.C., Canada, 16 Nov. 2021 (photo: B.C. Min. Transp. & Infrastr.)

General assembly, symposium, excursion, and training courses

Following the catastrophic floods of July 2021 in the area covering NW-Germany, the province of Liège in Belgium and the most southern part of the Netherlands, we organised, in close collaboration with

the Waterschap Limburg (provincial water board) and the municipality of Valkenburg aan de Geul, with support from the BFH-HAFL, our 8th general assembly focused on flood and integrated catchment management in hilly medium-size catchments (100 - 1000 km2). This took take place in Valkenburg aan de Geul in the province of Limburg in the Netherlands on 22 & 23 June 2022. In total, 36 persons



participated at the excursion and 45 during the symposium. Following the sysmposium, we organised a training course on BankforMap for 10 participants at the Chair of Engineering Geology and Hydrogeology at RWTH Aachen University, which is again greatly acknowledged for hosting us. In addition, a course on Rockyfor3D was organised for the National Environmental Agency of Georgia on 14-16 February (online) and 15-16 March 2022 (on location).

Communication

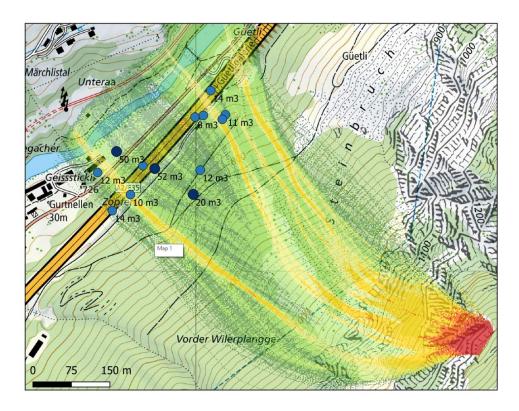
Since the beginning, communication with the members is an important activity and most often concerns questions regarding the ecorisQ tools. In 2022, we also published a handbook on the use of wood to counter or mitigate natural hazards, in collaboration with Lignum, timber industry – Switzerland, which can be <u>downloaded from our website</u>.

Future activities

In 2023, we envisage to release the first version SlideforMAP and BankforMAP. In addition, we are still working in the background on the improvement of SlideForce – the runout model for shallow landslides.

The planned extension of the rockfall trajectory model Rockyfor3D which allows integrating a specific modelling tool for rockfall dams will be postponed again due to lacking time resources. Another activity which continues is the development of the Root Bundle Model (RBM++; a user-friendly tool with an intuitive graphical user interface that allows to visualise and calculate the root reinforcement of nine tree-species at stand scale).

In collaboration with INRAE, the University of Savoie and BFH-HAFL, we will also continue working on the rock mass fall runout modelling tool RockavELA. An example of an application of RockavELA in Gurtnellen (CH) is shown below:



Last, but not least, we envisage to start with the update and harmonisation of the manuals of the existing tools of ecorisQ in the second half of 2023.

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Title:

Association Report 2022

The web version of this report is available at: www.ecorisq.org/ecorisq-reports

