Further development of the JOINT INFORMATION PLATFORM FOR NATURAL HAZARDS IN SWITZERLAND

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BACKGROUND

GIN, the Joint Information Platform for Natural Hazards (www.gin.admin.ch), was developed from 2008 to 2010 as part of the Swiss federal government's OWARNA project, which aimed to improve natural hazards warnings and alerts, and has been operational since 2011. The goal was to provide specialised information to natural hazard experts at the federal, cantonal and communal levels in a timely and concise manner. Since its launch, the GIN platform has received continuous improvements. Not only have new products been integrated in GIN on an ongoing basis, but functionalities have been further developed and the number of users increased. In addition to the Swiss federal agencies involved in the project (Federal Office for the Environment (FOEN), Federal Office of Meteorology and Climatology (MeteoSchweiz), WSL Institute for Snow and Avalanche Research (SLF) and Swiss Seismological Service (SED)), the platform is used by cantonal agencies, local natural hazard advisers, members of fire departments, avalanche services and regional governing bodies.
Previous GIN development and user feedback confirm that GIN has achieved the main goal of creating a joint platform to present the wide range of monitoring data, forecasts, warnings and bulletins, but does not yet meet expectations in a few areas, such as user-friendly Web applications. It was thought that a better organized and more attractive design would solve the problem of the platform's complexity, which is caused by the large quantity of data. As a result, a new Web design and user interaction concept was developed for GIN's GUI (Graphical User Interface) in 2014 in conjunction with an agency specialised in usability (Zeix AG) and will be implemented by 2016.

GOALS

GIN should become THE platform for natural hazards experts by 2016 and offer rapid, easy access to critical information. GIN is meant to be a self-explanatory and useful platform that is also appreciated by users for its look. Because its users are very diverse in terms of their topics of interest and expertise, GIN must absolutely offer a customisable range of necessary products for specific issues. In addition, operational aspects should be improved to increase efficiency in the background. For instance, change requests by users or data providers should be handled more rapidly. To achieve these goals, GIN will be further developed in very specific ways.

RESULTS

The focus of the GIN's new GUI is on user interaction with the platform. Preliminary work on the GUI concept involved performing an as-is/to-be analysis and developing design hypotheses. Consideration was also given to what users really need to work regularly with GIN, such as repeated use of applications with several data views (maps, diagrams, tables, text products, etc.) or selected geographical areas on maps or in searches. These hypotheses were used to produce a clickable prototype, which was then subjected to a usability test with six GIN users of various backgrounds to find out, for example, whether the new design features were understood and the buttons and terms made sense. The test findings were gradually applied to the graphic design and design templates were developed for final production.
The most eye-catching feature of the new user design is the dashboard start page (cf. figure), which gives users an overview of their saved files („dossiers"), current warnings and other important information. „Dossiers" are files that contain pre-defined or user-defined views and provide a quick, individual overview of the current situation. Data selection was also reorganized and now follows a shopping cart principle, whereby users can configure their file in a transparent manner. In addition, a parameter and station search function

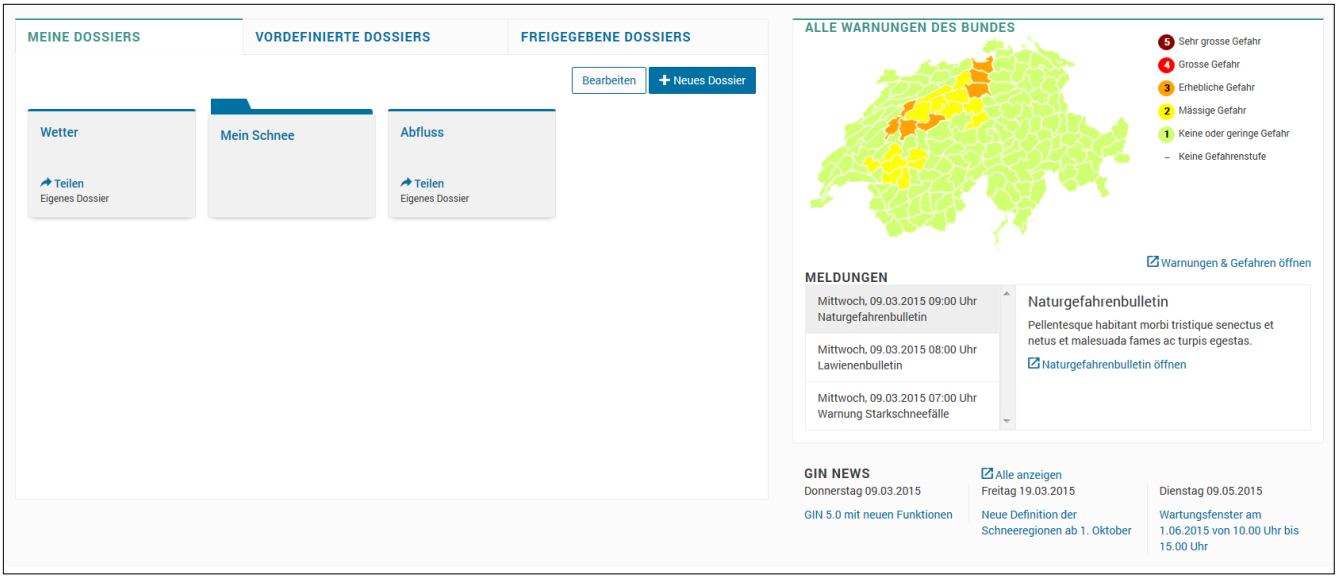

Figure 1. GIN's new dashboard and individual thematic files allow users to view data quickly and get an overview of warnings and the latest information.

was added to the platform to fulfil a longstanding request.

CONCLUSIONS

The new GUI is being built on a step-by-step basis and should be fully operational by 2016. Its development is based on a responsive approach, which makes it possible to continuously review whether GIN meets needs. Preliminary feedback indicates that the new design is well received by users and that GIN is moving much closer to the actual goal of helping natural hazard experts make decisions during events by providing them with effective products in real time through a joint platform.

REFERENCES:

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KEYWORDS

information platform; natural hazards; usability; interaction concept

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