



The Seismic monitoring and vulnerability framework for civil protection (SIBYL) Project: An overview and preliminary results

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The SIBYL project is setting out to contribute to enhancing the capacity of Civil Protection (CP) authorities to rapidly and cost-effectively assess the seismic vulnerability of the built environment. The reason for this arises from the occurrence of seismic swarms or foreshocks, which leads to the requirement that CP authorities must rapidly assess the threatened area's vulnerability. This is especially important for those regions where there is a dearth of up-to-date and reliable information. The result will be a multi-faceted framework, made up of methodologies and software tools, that provides information to advise decision makers as to the most appropriate preventative actions to be taken. It will cover cases where there is a need for short-notice vulnerability assessment in a pre-event situation, and the monitoring of the built environment's dynamic vulnerability during a seismic sequence. Coupled with this will be the ability to stimulate long-term management plans, independent of the hazard or disaster of concern. The monitoring itself will involve low-cost sensing units which may be easily installed in critical infrastructures. The framework will be flexible enough to be employed over multiple spatial scales, and it will be developed with a modular structure which will ease its applicability to other natural hazard types. Likewise, it will be able to be adapted to the needs of CP authorities in different countries within their own hazard context. This presentation therefore provides an overview of the aims and expected outcomes of SIBYL, while explaining the tools currently being developed and refined, as well as preliminary results of several field campaigns.