MAppERS: a peer-produced community for emergency support

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A general trend in European governance tends to shift responsibilities in territorial management from national central authorities to local/regional levels and to the citizens as first actors of Civil Protection. Prevention is a long term goal that rests not only on the capacities of professional operators and volunteers, but that has to necessarily imply the involvement and awareness of the citizens over the territory they inhabit. In fact people often do not have chance to interact in the surveillance of the territory and only face risks when they have to bear impacts on their lives. Involvement of population creates more cost-effective and context-specific strategies of territorial surveillance and management. A collaborative user environment is useful for emergency response and support in the wake of disasters, feeding updated information on the ground directly to on-site responders. MAppERS (Mobile Application for Emergency Response and Support) is a EU project (funded under programme 2013-2015 Humanitarian Aid and Civil Protection, ECHO A5) which empowers citizens as "crowd-sourced mappers" through the development of a smart phone application able to collect GPS-localised and detailed parameters, that can then be sent from citizens to civil protection operators in a contest of geospatial response. The process of app design includes feedback from citizens, involving them in training courses on the monitoring of the territory as long term objective of raising public awareness and participation from the citizens, as actors in a networked disaster response community. The project proceeds from the design and testing of the smart phone applications (module MAppERS-V for volunteers, module MAppERS-C for citizens) according to software engineering environment (Android and Iphone SDK). Information exchange and data transfer need clearness and efficiency; thus a previous research is conducted on the cost-effectiveness of already existing practices for territorial management. Citizens and volunteers of civil protection are then involved to test applications at pilot sites. This phase takes place in parallel to a dedicated training on app functioning. The app modules are to be later re-designed according to a methodological and technical feedback gained during pilot study. Training curricula for citizens that wish to be involved in the monitoring of the territory in the long run are then to be defined so to promote territorial knowledge and awareness, give information and practical skills on smart phone technologies and specific efficient jargon to communicate hazard relevant information. Overall, a user-friendly integration with existing monitoring on-site technique prevails on a deep new architecture. A synchronized platform would allow both the protection of private data from citizens and the identification of the users in case of misuse of the information sharing. The expected results of this project are: a) an easy-to-use "human-data" input on crisis management, b) the development of a multi-module smart phone application linking trained people and headquarters c) maximised utility of peer-produced mapping (e.g. damaged points, critical hotspots), d) the development of a strategy of disaster prevention based on development of human and social resources rather than structural mitigation options.