Emergency Management in Australia, New Zealand and Europe - The 2006 EMANZE Survey

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Emergency Management receives considerable attention by governments around the world, and the effective and efficient organization of mitigation, preparedness, response and recovery efforts remains a challenge addressed with a variety of approaches in different countries. In recent years, technology has greatly improved the ability of emergency management organizations to cope with disasters. The latter is a summary of one of the key findings of the EMANZE survey research project carried out by Germany's Fraunhofer-Gesellschaft and National ICT Australia in 2006, looking into *Emergency Management and Security Research in Australia, New Zealand and selected countries in Europe* [1]. Based on literature review and structured personal on-site interviews with senior emergency management experts at national, state and selected regional or local government levels and at NGOs, EMANZE has yielded a comparative picture of both organizational characteristics and technology use in the countries and states researched.

Covering both old and new world countries, including Australia with its heterogeneity of the densely populated Southeast and its vast outback areas, it became evident that common emergency situations are tackled in considerably different ways, reflecting a different philosophy (e.g. a top-down or a bottom-up approach), different individual capabilities (including the availability of ICT) and different circumstantial aspects – in some areas of Australia it takes hours for professional emergency services to rush to an emergency site, so volunteers or even by-standers assume a key role. Understanding that they share common hazards such as tropical cyclones, EMANZE also looked into selected less-developed South Pacific island countries and the way they handle emergency management on their own and with wealthy-neighbor assistance.

Key issues addressed in the EMANZE interviews include:
- the use of and reliance upon critical infrastructures, in particular specific ICT, where *communication networks* were frequently quoted
- the role of technology and recent breakthroughs affecting capacities, where almost all interviewees

indicated that technology advances had actually improved their ability to cope with emergencies, and *mobile and sat phone technology* was frequently quoted
- the assessment of the legal framework (e.g. its stability) and funding levels, with remarkably *mixed answers*
- the degree of preparedness for both natural and man-made disasters considered likely by the respective interviewee, where preparedness for the former (often cited: *flooding*) was generally seen better than for the latter (often cited: *terrorist attack, industrial accident*)
- the comparative assessment of emergency management quality across states, where many interviewees provided frank judgments suggesting under- and over-performers
- the perceived need for future contributions by academia, where answers ranged from *easier-to-use sat phones* to *a holistic communication system that works anytime anywhere*

and other aspects.

Along certain emergency scenarios identified as relevant for their respective country or state by interviewees, response time aspects such as communication with other organizations, the availability of required information and the degree of dependence on services provided by private companies are addressed. Interestingly, interviewees managing both urban and rural regions generally do not suggest that cooperation partners or means of information exchange differ a lot with regard to where the disaster struck. On a per-country basis, the most intensively debated topic in emergency management is identified, such as *changes in Federal funding allocation* in Germany and *new legislation introducing major organizational changes* in New Zealand in 2006.

Finally, the security research part of EMANZE looks into how academia contributes to the field through work such as [2].

[1] Meissner, Andreas (2006). "Emergency Management and Security Research in Australia, New Zealand and the South Pacific: Survey and Comparison to Europe", in: Recent advances in security technology, Proc. Safeguarding Australia - 2006 RNSA Security Technology Conference, Canberra/Australia, 21-23 Sept 2006.

[2] Robinson, Ricky, and Indulska, Jadwiga (2006). "Adaptive and resilient systems for emergency response", in: Recent advances in security technology, Proc. Safeguarding Australia 2006, Canberra, see [1].

[1] During the EMANZE data collection, the author had a co-affiliation with National ICT Australia's Queensland Research Lab (NICTA QRL)