

ORGAMIR

Co-operative Research Project

Cross-organizational hazard prevention to protect human life and critical infrastructures by optimised prevention and reaction

DESCRIPTION

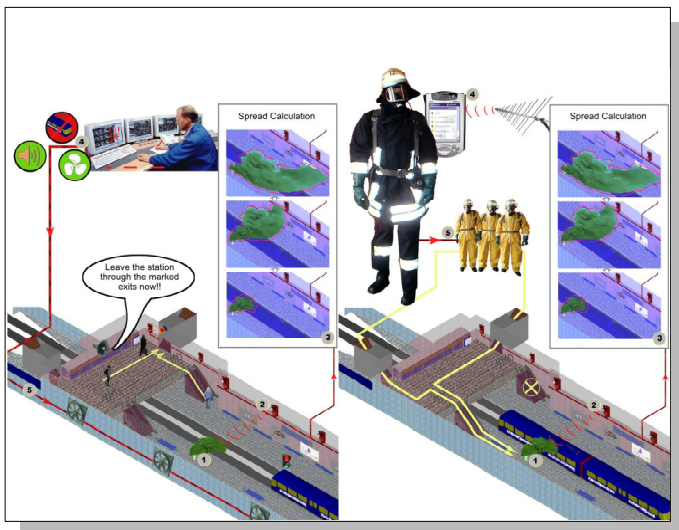
Subways are convenient transportation systems for people within cities. Millions of passengers are using one of the 94 subways in the world regularly and thus stay – often more than once every day – within subway stations, entrance and exit areas and connecting tunnels for a longer period of time. The ORGAMIR project will develop new methods of information allocation to support efficient rescue operations. The main objective of this project is the determination of the actual and prospective contamination, resulted by the spread of hazardous substances within the subway system, and providing condensed information to all involved stakeholders. The knowledge of the spread behaviour leads to direct advice for passengers, rescue forces and the transportation organisation.



<http://www.orgamir.de>

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SPONSORED BY THE



OBJECTIVES

- Forecasting the propagation of hazardous substances in subway systems and stations
- Supply of context sensitive Information to support tasks and decisions
- Optimisation of collaboration of fire brigades, rescue services and operating companies
- Obstruction of spread in the design and planning phases of stations

RESEARCH

- Understanding climatological correlation in subway systems
- Spread prognosis in confined spaces
- Combining spread prognosis and egress time calculation for online guidance of escape routes
- Deduction of guidance by fusion of information out of different data sources



ORGAMIR PROJECT: CONTRIBUTIONS OF PARTNERS

UNIVERSITY PADERBORN

- Project coordination and Core IT System
- Combination of spreading prognosis and egress time calculation for online guidance of escape routes
- Information fusion, adaptive to-do lists and context sensitive information

INDANET AG

- Data visualisation of complex Information
- Graphical user interface of the IT System
- Control and integration of actuators for guidance system

INGENIEURBÜRO LOHMEYER

- Computational fluid dynamic (CFD) prognosis of spreading in confined spaces
- Localisation of source
- Plausibility check

INSTITUT FÜR MIKROTECHNIK MAINZ

- Hazardous substance detection
- Development of modular sensor platforms
- Event triggering

FRIEDRICH SCHILLER UNIVERSITY OF JENA

- Challenges of inter-organisational cooperation in crisis management
- Psychological specification of information for institutions
- Aspects of human factors and guidance for evacuation
- Training setup for civil crisis management staff

RUHR-UNIVERSITY OF BOCHUM

- Analysis, determination and interpretation of climatological phenomena in subway stations and systems
- Long-term measurement of air current and propagation experiments
- Spreading prognosis for subway systems

ED. ZÜBLIN AG

- Use of climatological research for building safer stations
- Assessment of stations by climatological relevant criteria

