

# DEWS – Distant Early Warning System

From GITEWS to DEWS:  
A System of Systems and Network of Networks

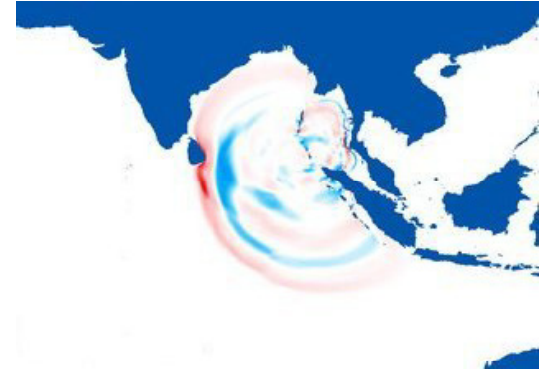
DEWS Team

GeoForschungsZentrum Potsdam

Water elevation (m)



-2 -1 0 1 2 3 4 5 6 7 8 9 10



## Project Details

- DEWS - Distant Early Warning System
- Funded under EU 6th Framework Programme - IST
- Duration: February 2007 – June 2010
- Project Costs: 6 Mio €
- Project Funding: 4 Mio €
- 21 Partners: ID, TH, LK, NZ, IT, ES, SE, JP, NL, FI, DE
- Coordinator: Atos Origin
- Scientific & Technical Coordinator: GFZ






## DEWS - Partner Distribution

### Northern

 Atos Origin SA., Spain  
Coordinator

 GFZ Potsdam, Germany


 Saab AB (publ), Sweden

 DATAMAT S.p.A., Italy


 Helsinki University of Technology  
Communications Laboratory,  
Finland

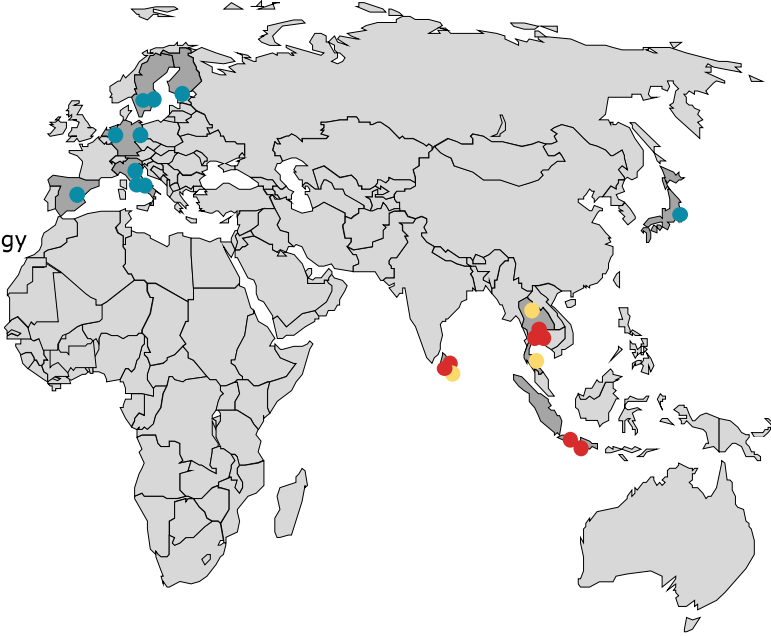
 Citizen Alert Services BV,  
Netherlands

 National Research Institute  
for Earth Science and Disaster  
Prevention, Japan

 Swedish Rescue Services  
Agency, Sweden


 University of Bologna, Italy


 Engineering Ingegneria  
Informatica S.p.A., Italy





● Project-Partner    ● INCO-Partner (Authority)    ● INCO-Partner (University)


### Southern


 Geological and Nuclear Sciences,  
New Zealand

 Geological Survey & Mines  
Bureau, Sri Lanka

 Thai Meteorological Dept.,  
Seismological Bureau, Thailand


 National Disaster Warning Center,  
International Affairs, Thailand


 Badan meteorologi & Geofisika  
Meteorological and Geophysical  
Agency BANA, Indonesia

 Ministry of Disaster Management  
& Human Rights, Disaster  
Management Centre, Sri Lanka

 Department of Disaster Prevention  
and Mitigation Thailand

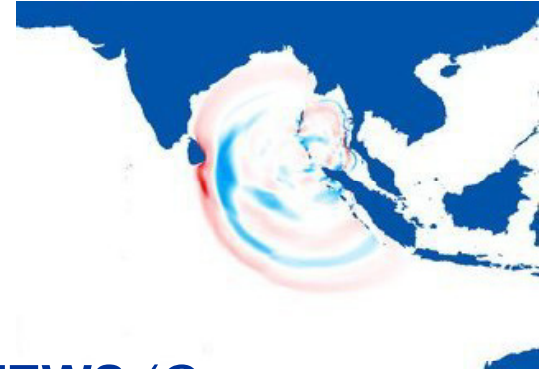
 Bandung Institute of Technology,  
Indonesia

 Moratuwa University, Dept. of  
Engineering, Sri Lanka

 Prince of Songkla University,  
Thailand

 Chiang Mai University, Thailand

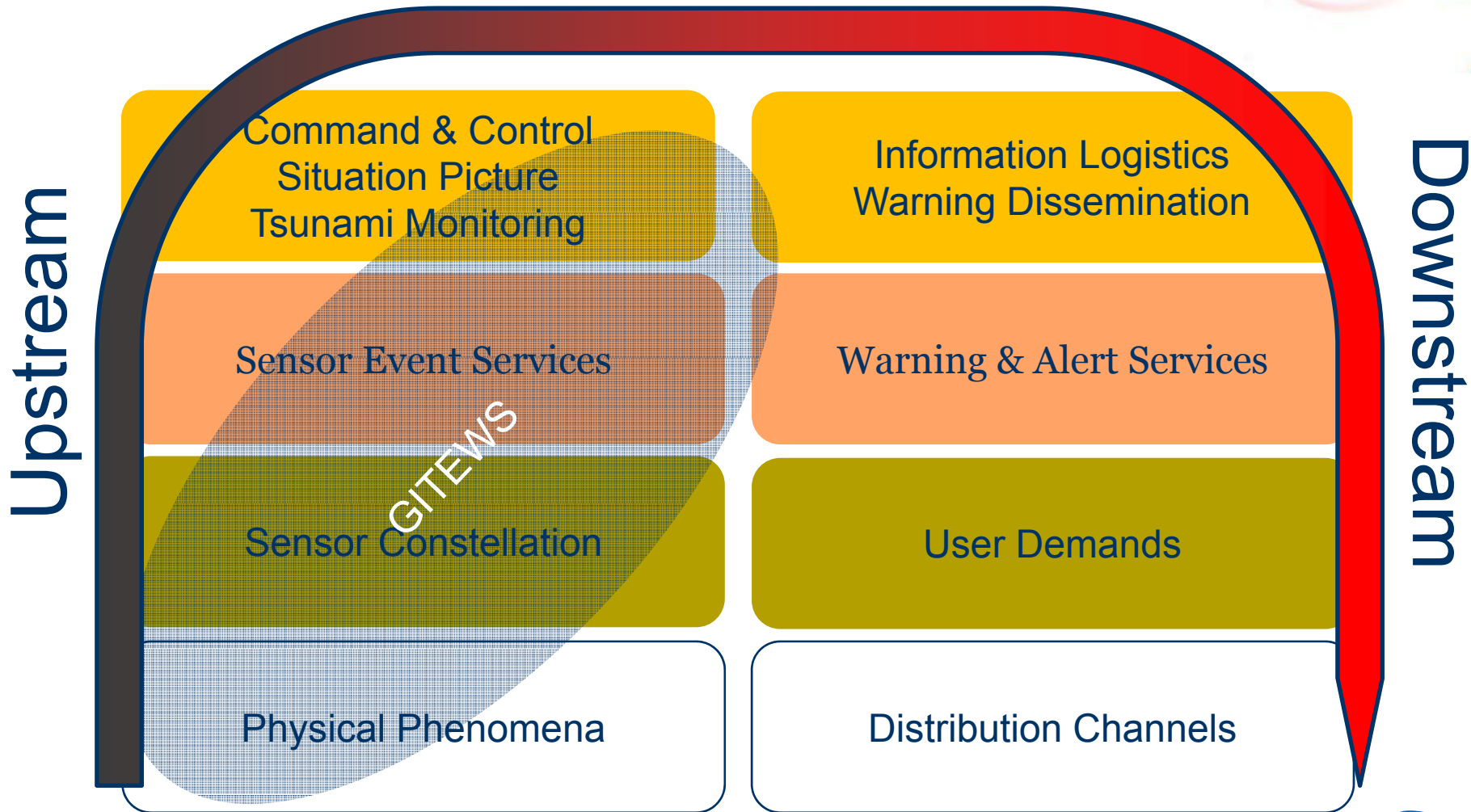




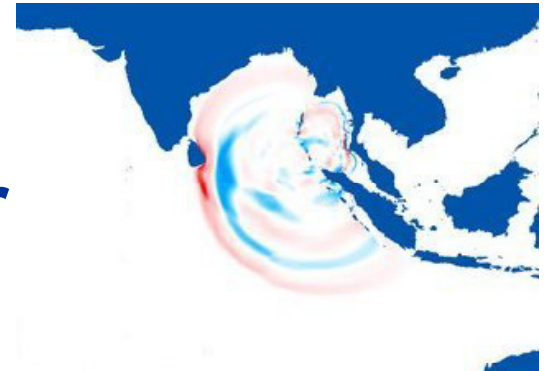
# Project Objectives

- **Based on** the sensor integration platform of **GITEWS** (German Indonesian Tsunami Early Warning System)
- Development of a new generation of **interoperable tsunami early warning systems** integrating reliable **tsunami detection** and effective **warning dissemination**
- Upstream functions: earthquake, sea level and ground deformation monitoring based on a **multi sensor platform**
- Downstream functions: targeted user oriented compilation of warning messages and **multichannel dissemination**
- 100% SWE compatibility, native SWE-speaking Sensors
- Standard based **reference model** for integrated **multi hazard** early warning systems
- Development focus on warning centre and dissemination functionality

# Upstream/Downstream Dataflow



# Relevance of ORCHESTRA for DEWS



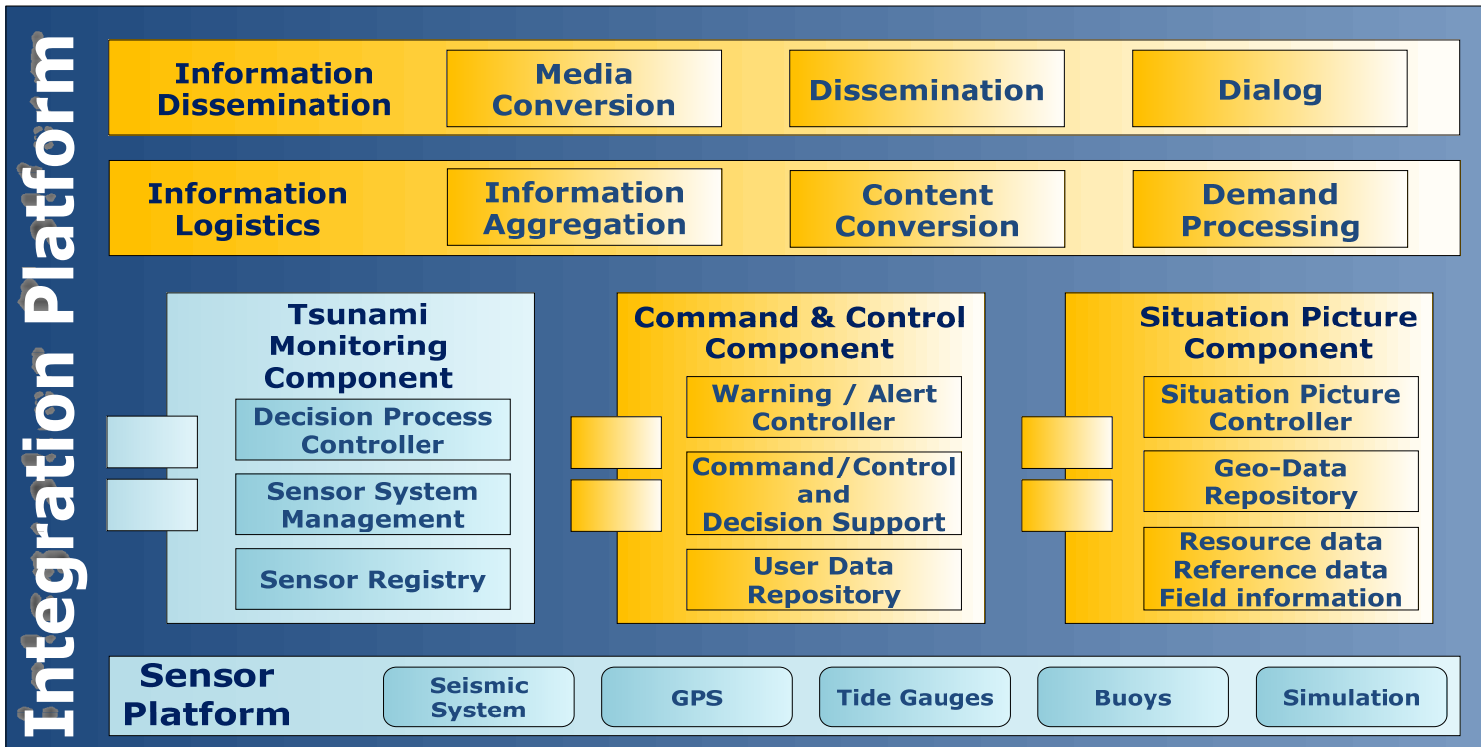
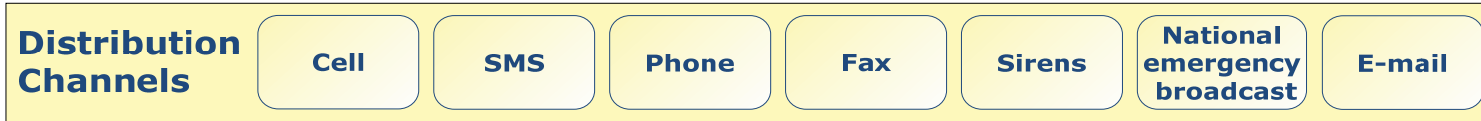
- Sensor integration will be based on SWE services
- ORCHESTRA will play a special role for the design and implementation of Control and Command, Situation Centre, and Information Logistics Components
- GITEWS sensor systems components are Free and Open Source, e.g. Seismic System (SeisComp 3)
- Open Source Implementation of ORCHESTRA Services might improve a basic FOSS platform for (tsunami) early warning systems
- Experiences and lessons learned

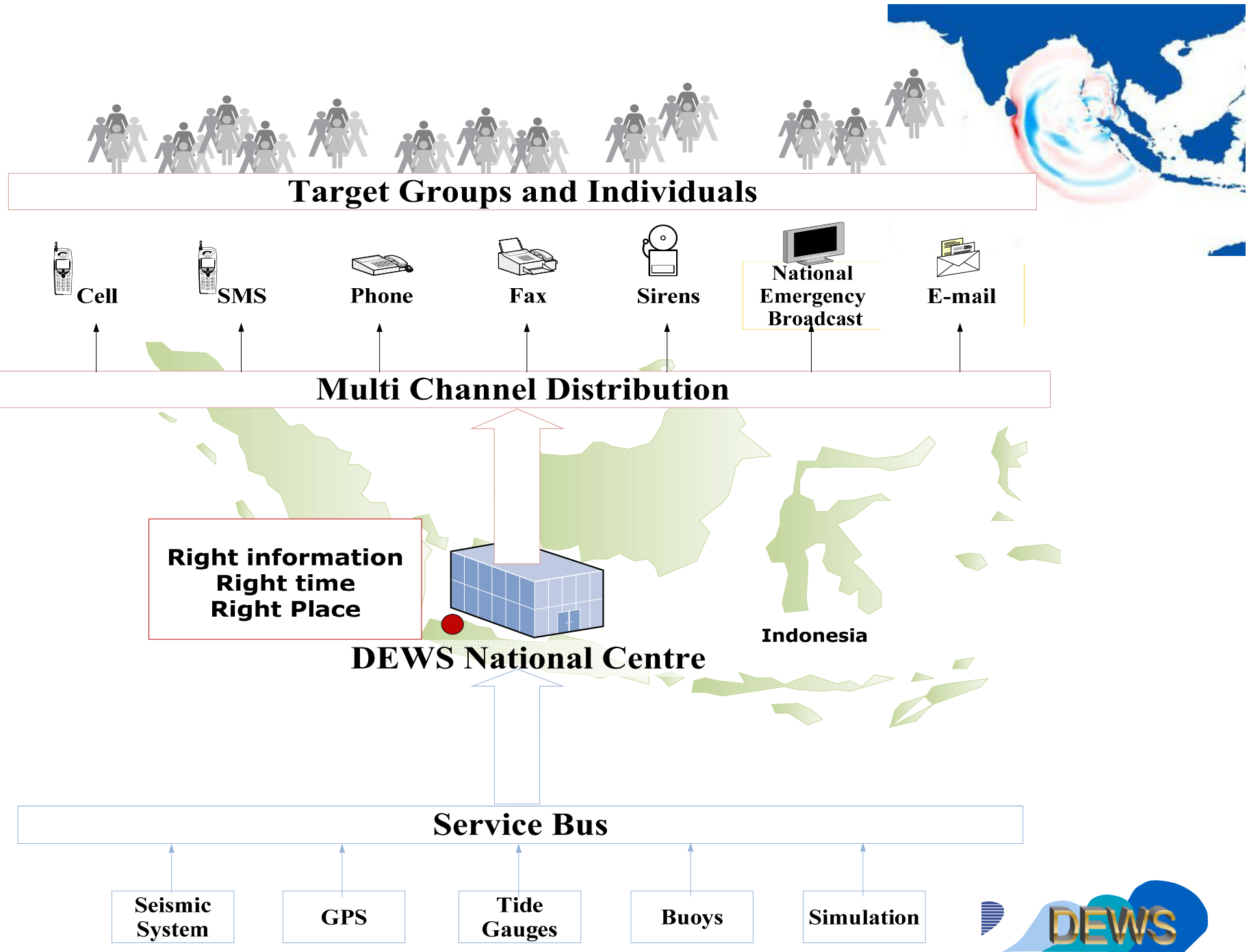


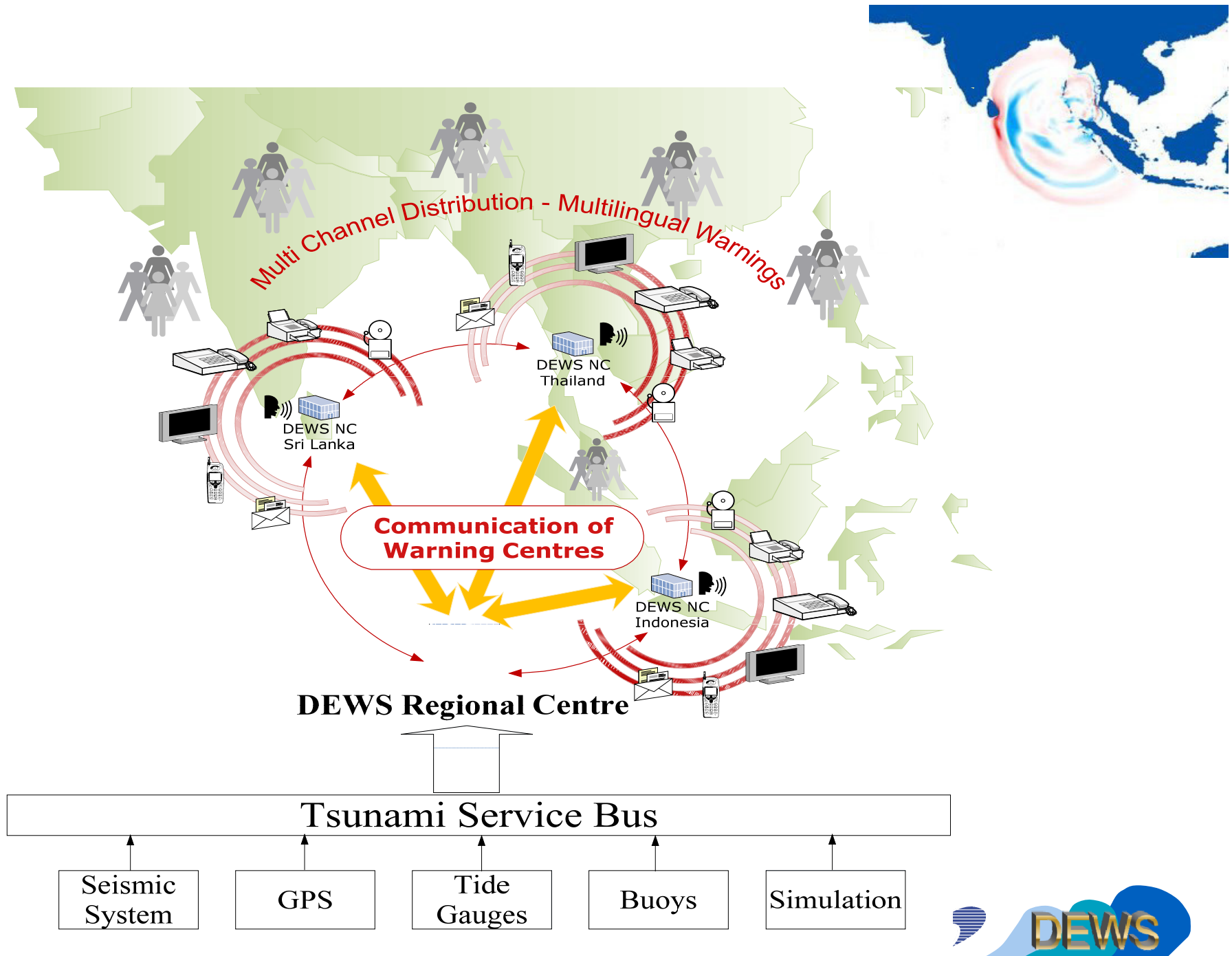


# Logical View

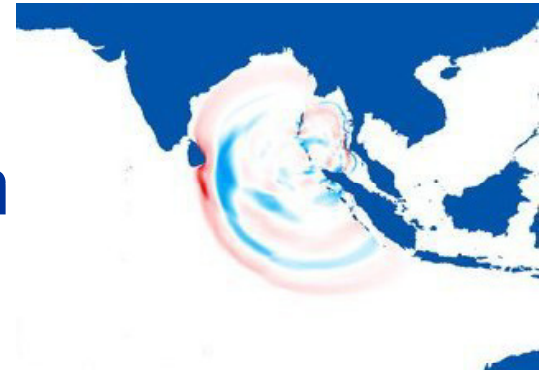
Components from GITEWS







**Thank you for your attention**  
and patience



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