

# Societally Relevant S&T Issues

## Disaster SBA

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### **DI-09-01a: Vulnerability Mapping and Risk Assessment**

- Data availability.
- Extracting relevant information from remotely sensed data.
- Model calibration (supersites for calibration of vulnerability assessments)

### **DI-09-01b: Seismographic Networks Improvement and Coordination**

- Primary earthquake hazards often difficult to predict; but secondary hazards can be predicted.
- Integrating of existing national or regional activities at global level.
- Justifying effort to achieve rapid/real-time access to data (user requirements).
- Translating the resulting understanding of the physical mechanisms of hazards into useful mitigation or preventive measures (link between science results and applications).
- Standardization of installation, operation and maintenance techniques for the major networks.
- Increasing the number of real-time stations (low latency).
- Closing gaps in observing networks on continents and oceans.
- Improve product dissemination and the quality of information delivered.

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### **DI-09-02a: Implementation of a Multi-Risk Management Approach**

- Multi-risk management approach has many S&T issues (see GHCP Roadmap)

### **DI-09-02b: Regional End-to-End Disaster Management Applications**

- Application of S&T in an end-to-end context
- Ensuring that technology is “packaged” in a user friendly fashion and made available without undue restrictions at a reasonable cost.
- Transition from research to operations
- Terrestrial applications of space-borne technologies
- Remote sensing and geomatics
- End user driven applications of S&T
- Integrate data from optical and radar satellites with hydrological models
- use interferometric radar measurements to identify long-term damage

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### **DI-09-03a: Tsunami Early Warning System of Systems**

- Low-latency magnitude and displacement field estimates to enable tsunami predictions
- Tsunami detection/prediction
- Real-time networks (GNSS, seismological)
- Coastal tsunami(/sea level) hazards maps
- Digital elevation models
- Fault database

### **DI-09-03b: Implementation of a Wildland Fire Warning System at Global Level**

- communication to local (community) level is a problem in many areas globally (closing the gap of the “the last mile”)

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### **Common Issues:**

- Integration of different techniques
- Integration of observations and models
- Extraction of relevant information from observations
- Real-time/low latency networks
- products and information relevant for end users

### **How to address these issues?**

#### **Workshops on**

- Integration of different techniques
- Integration of observations and models
- Extraction of relevant information from observations

**Coordination efforts** for enhanced real-time/low latency networks

**Linking of providers and end users:** is the AIP an opportunity?