

# **ITU Workshop on “Disaster Relief Systems, Network Resiliency and Recovery”**

**(Phuket, Thailand, 20 May 2013)**

## **How ICT Coordinates Humanitarian Assistance and Disaster Relief**

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**GeoThings CEO**

**OGC Delegate to ITU-T SG11**

**slayer@geothings.tw**

Phuket, Thailand, 20 May 2013

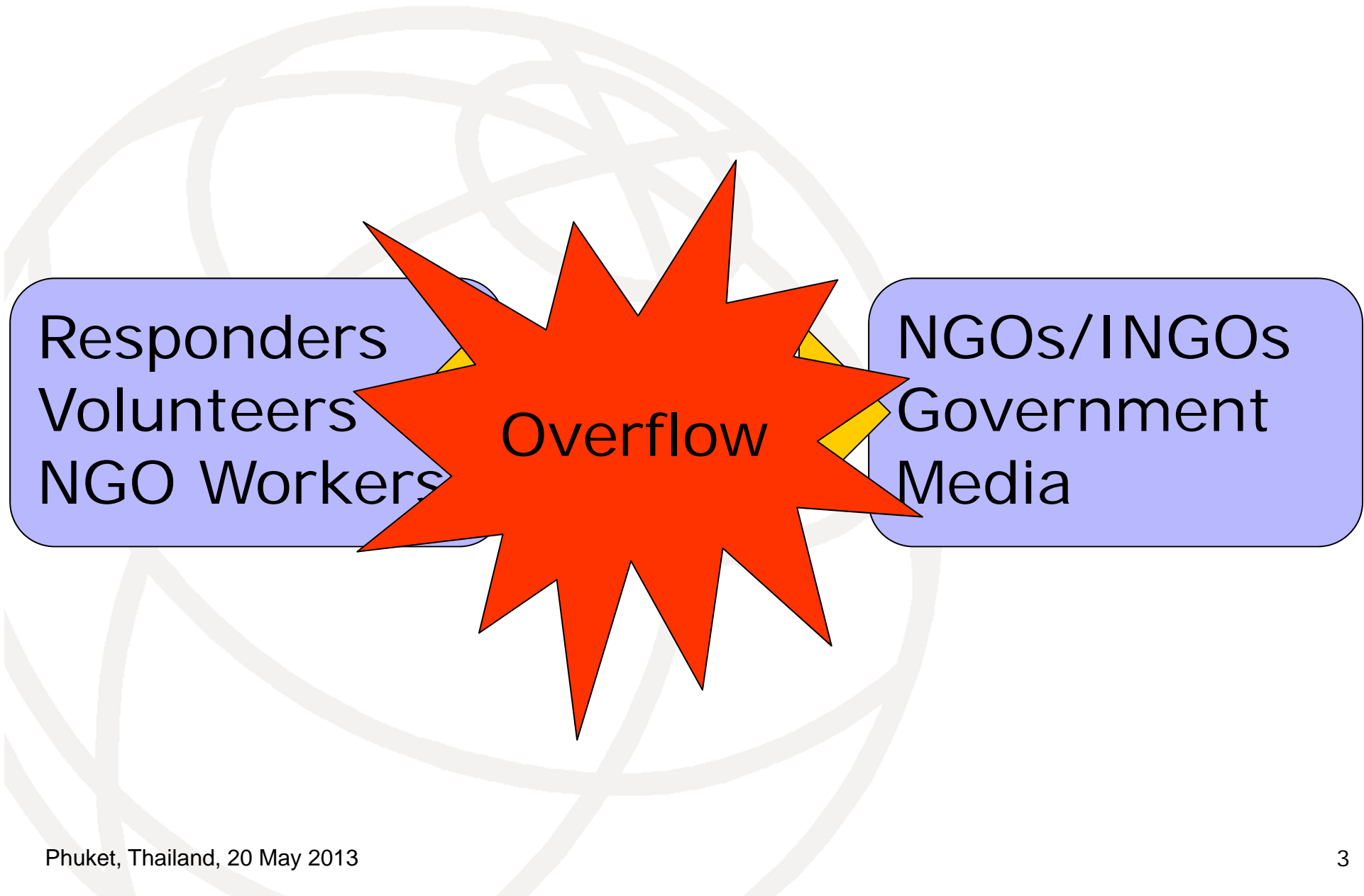


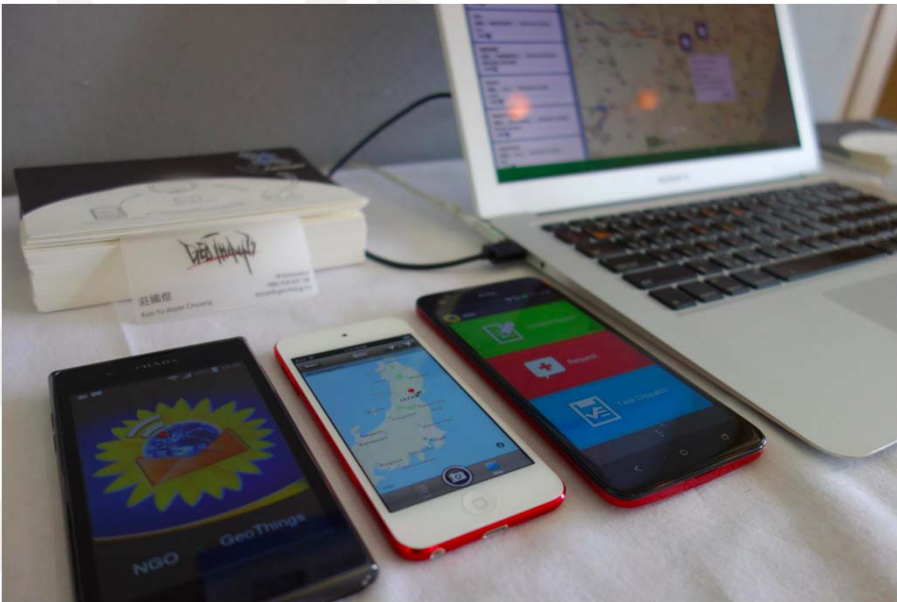


An incubation project of ITRI, Taiwan, China  
Not-for-profit Foundation to be  
ICT enabled technology for humanitarian supports

# About GeoThings

# Information Overflow during Disaster

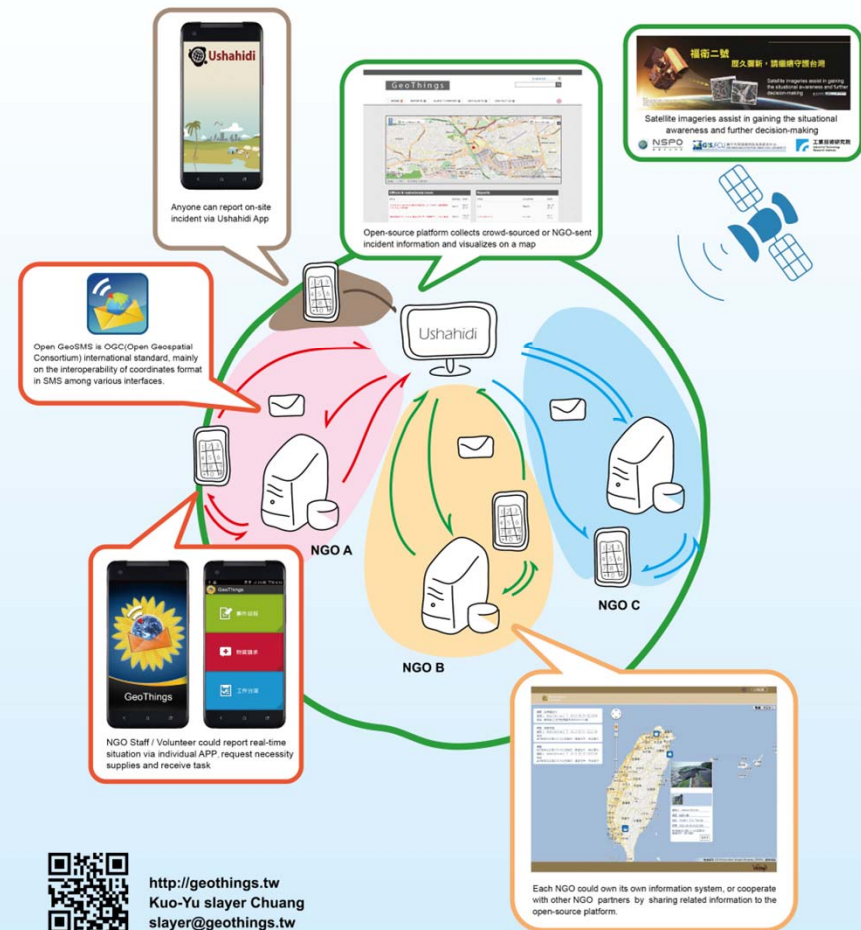




Phuket, Thailand, 20 May 2013

# Geothings

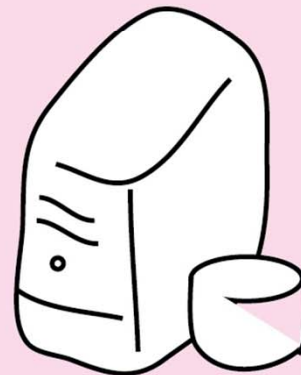
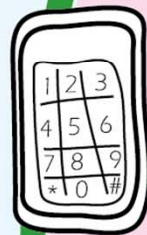
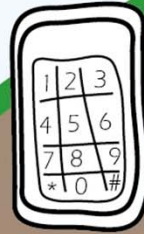
## Disaster Management and Coordination Platform



# OGC Open GeoSMS



Open GeoSMS is OGC(Open Geospatial Consortium) international standard, mainly on the interoperability of coordinates format in SMS among various interfaces.



# OGC Open GeoSMS

## Encoding Standard of Location + SMS

I'm in Fancy Bar, can't find taxi, pls come and give me a ride



<https://maps.google.com.tw/maps?q=24.777,121.044&GeoSMS>

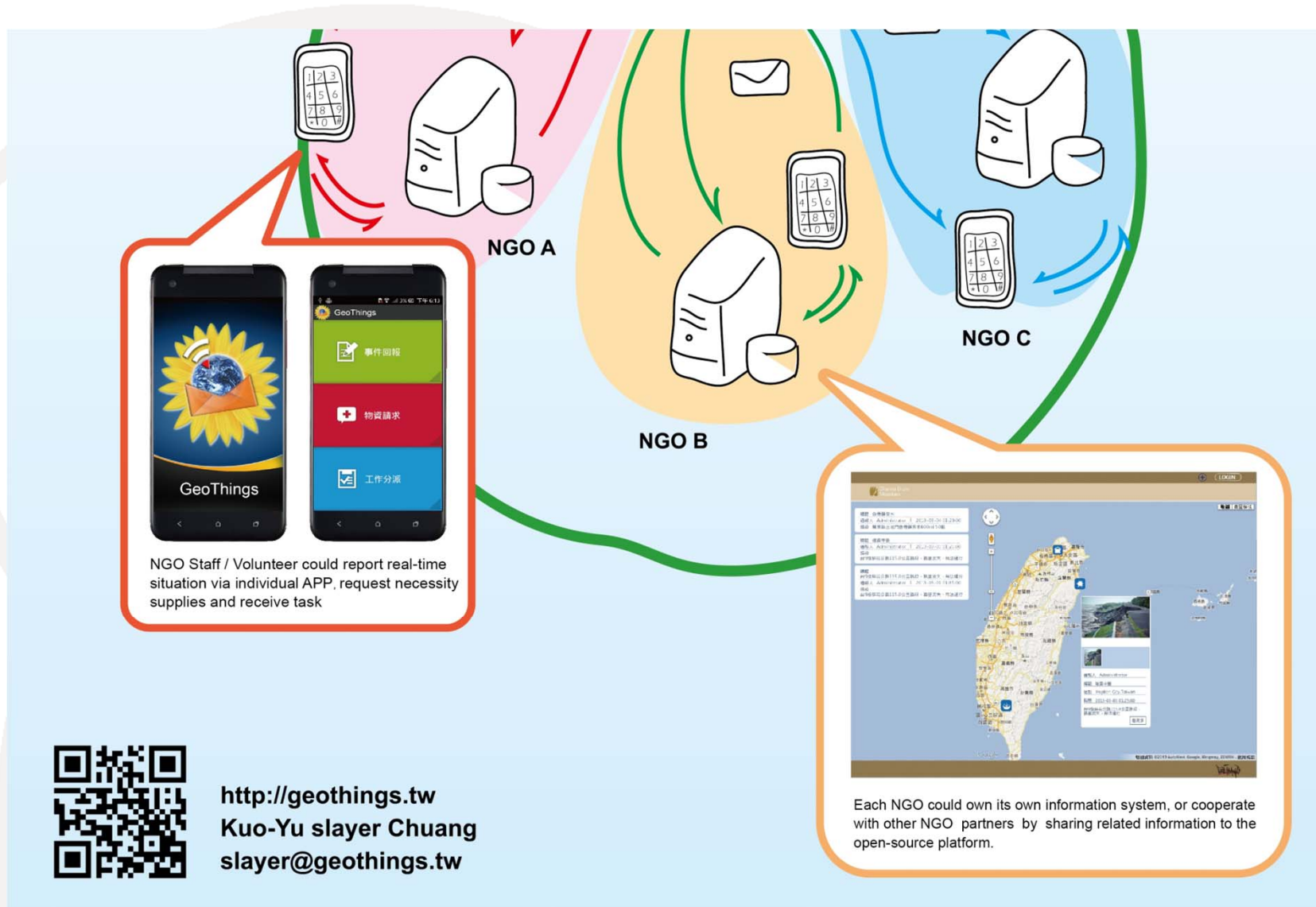
I'm in Fancy Bar, can't find taxi, pls come and give me a ride

# Background

- The Open Geospatial Consortium (OGC)
  - ➔ Since 1994,
  - ➔ Delivering open standards to the global geospatial community,
  - ➔ OGC KML, GML, WMS, Open GeoSMS, and more international open standards

**Now OGC is co-working with ITU-T on  
WORK PROGRAMME: Q.ProGeoSMS**

# ICT as Tool for Disaster Relief





# Scenarios that ICT can Help

- Incident Report
  - ➔ "This building was damaged!"
  - ➔ "The way to my home was blocked!"
- Resource Request
  - ➔ "Need at least 500 bottles of water"
  - ➔ "Hot food needed"
- Task Dispatch
  - ➔ "Please deliver water to that shelter"

# Connected with Feature/Smart Phones

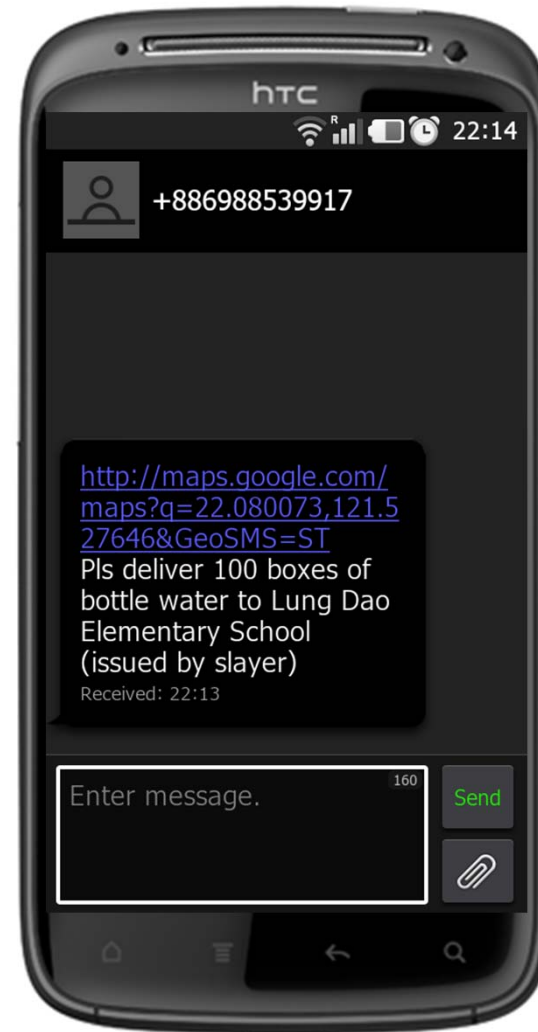
The image displays a mobile application interface for an NGO, designed for use on both feature phones and smart phones. The interface is divided into several sections:

- Menu (Left):** A vertical menu with four main options: "Incident Report" (green), "Request" (red), "Task Dispatch" (blue), and "SMS" (green). Each option is accompanied by a relevant icon.
- Timeline (Middle):** A "Twitter Style Timeline" of messages. Each message entry includes a sender name, a timestamp, and a brief description of the message content. The messages shown are:
  - "This is a test..." (2013-03-26 15:35:00)
  - "abe" (2013-03-26 15:14:00)
  - "test" (2013-03-26 14:23:00)
  - "GPS problem" (2013-03-26 11:34:00)
  - "second day in S..." (2013-03-26 11:30:00)
  - "D..." (2013-03-25 17:29:36)
  - "Abc" (2013-03-25 17:29:36)
- Map View (Right):** A map of a city area (likely Sendai, Japan) with several blue star-shaped markers overlaid on it, indicating the locations of incidents or requests. The map includes street names, landmarks, and a "Geotings" logo at the bottom right.

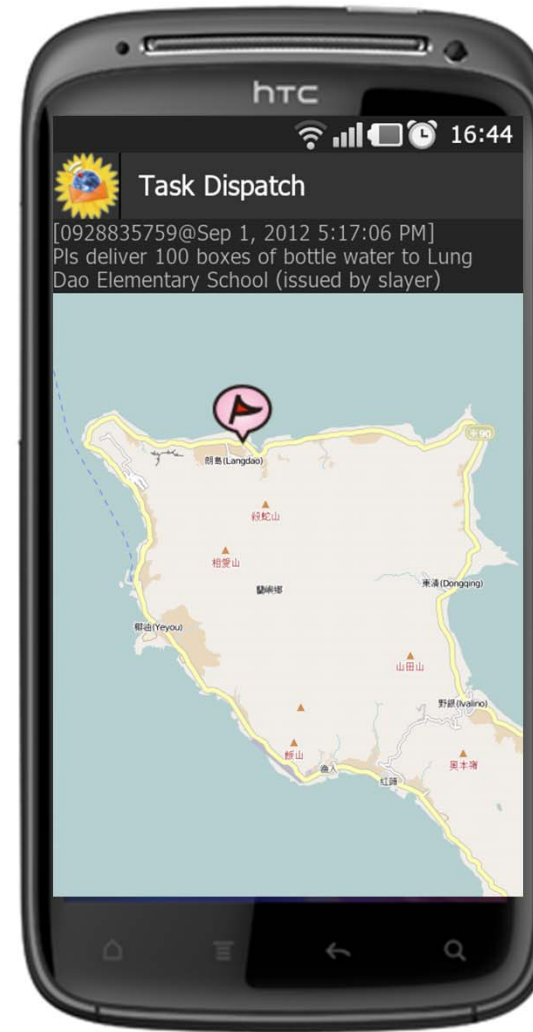
Arrows indicate the flow of information: a green arrow points from the "Request" menu item to the timeline, and another green arrow points from the "SMS" menu item to a Nokia feature phone shown at the bottom left. The phone's screen displays a similar interface, demonstrating the application's compatibility with feature phones.

Twitter Style Timeline + Map View

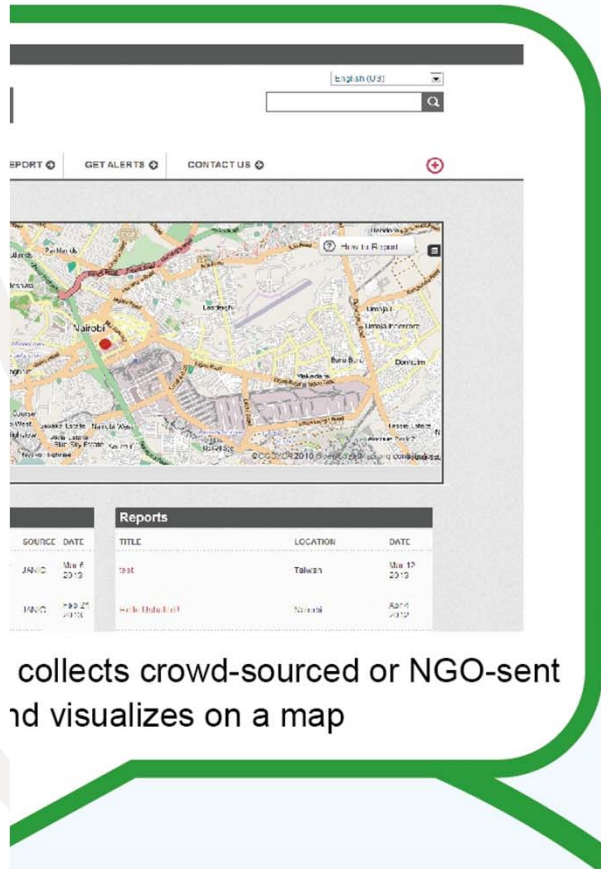
# Task Dispatched with Open GeoSMS



# App with Offline Open Street Map



# Satellite Image for Humanitarian



collects crowd-sourced or NGO-sent reports and visualizes on a map

SOURCE	DATE	TITLE	LOCATION	DATE
JAN-C	May 8 2012	33K	Taiwan	May 10 2012
IN-C	May 27 2012	Waka-Uhukali	Nairobi	May 27 2012



**福衛二號**  
歷久彌新，請繼續守護台灣

Satellite imageries assist in gaining the situational awareness and further decision-making

Satellite imageries assist in gaining the situational awareness and further decision-making

NSPO NATIONAL SPACE ORGANIZATION  
GIS.FCU 逢甲大學地理資訊系統研究中心  
工業技術研究院 Industrial Technology Research Institute



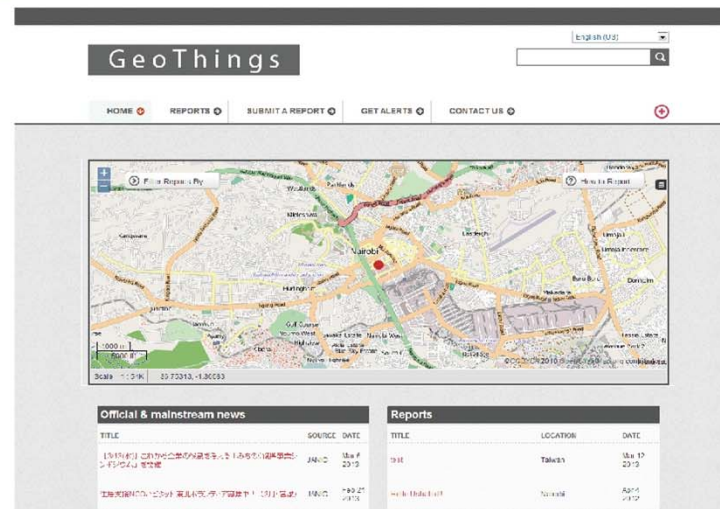
# Request Image with Open GeoSMS



# Coordination for Organizations



Anyone could report on-set incident via the Ushahidi APP

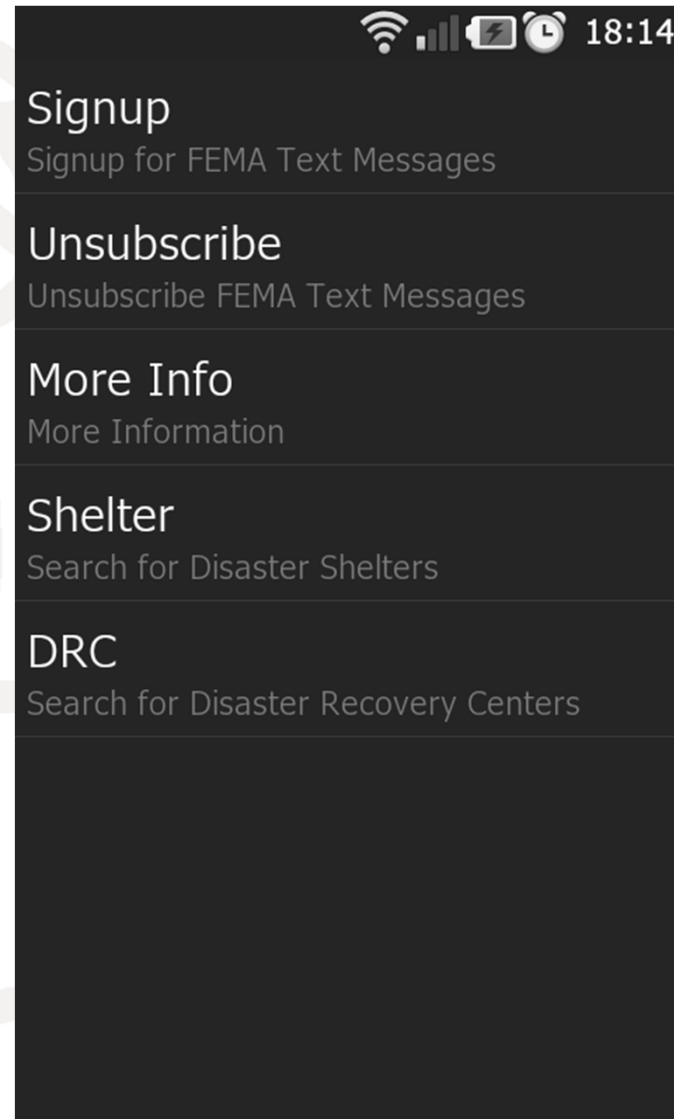
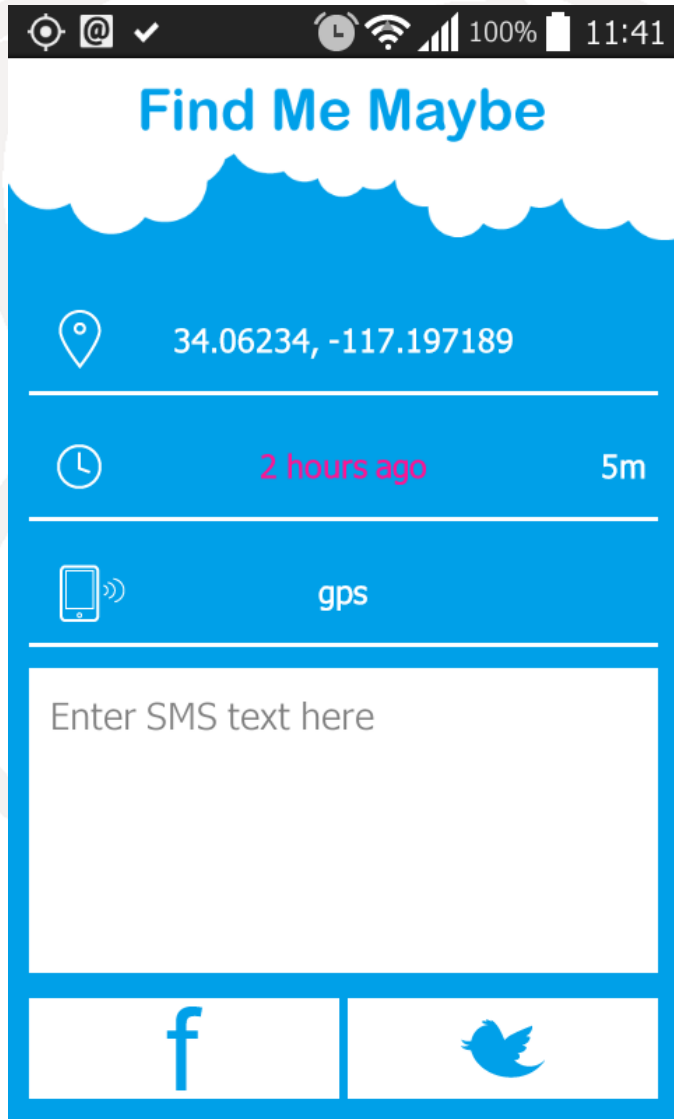


Open-source platform collects crowd-sourced or NGO-sent incident information and visualizes on a map



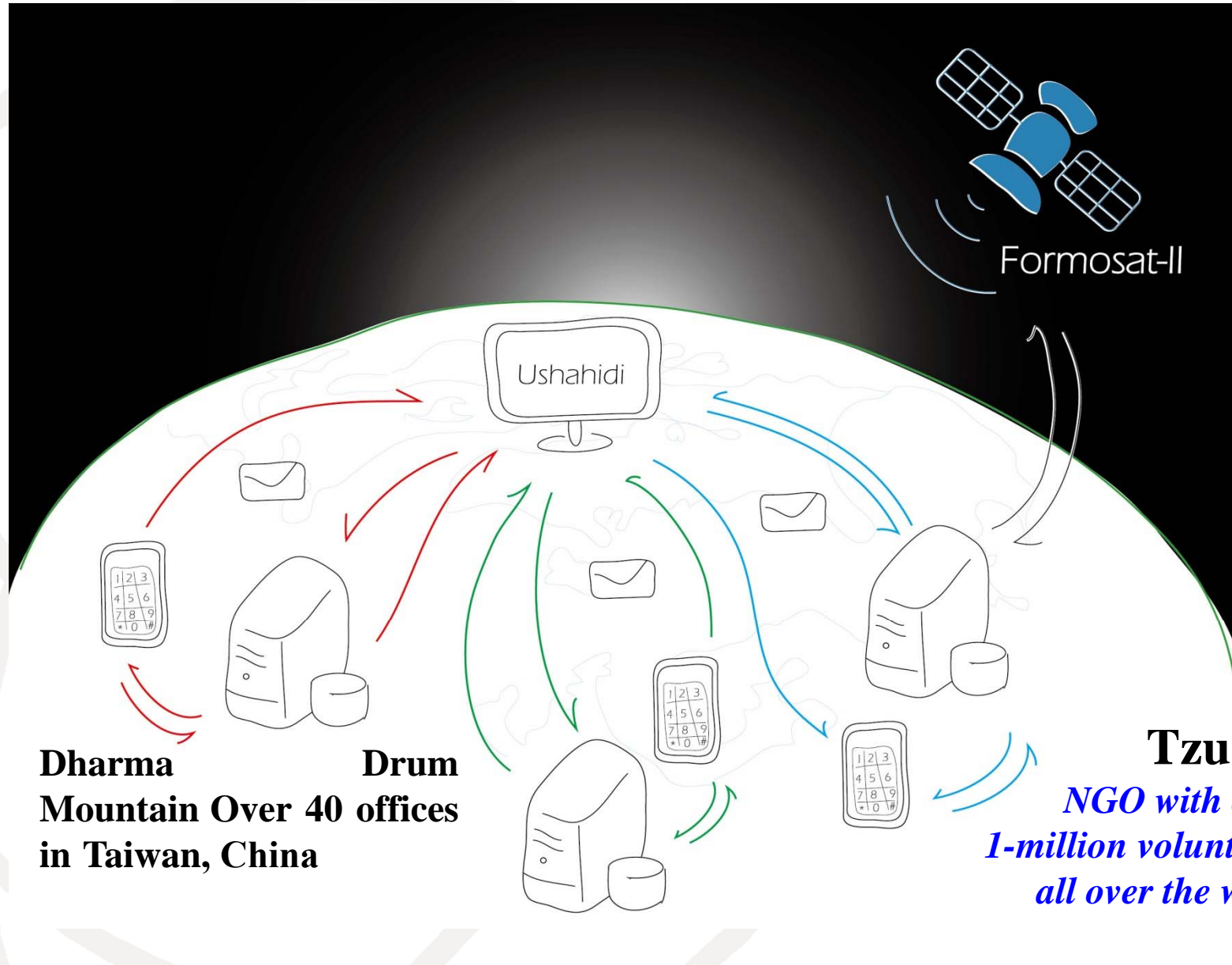
Phuket, Thailand, 20 May 2013

# OGC Open GeoSMS App for Sandy Response to Public





# Current Collaborations in Taiwan, China



**Dharma Mountain**  
Over 40 offices  
in Taiwan, China

**TzuChi**  
*NGO with over  
1-million volunteers  
all over the world*

# Conversation with Japanese NGOs

Date & Time: Mar 27, 2013, 12:00-14:30

Participants:

Mr. Kuo-Yu CHUANG, Slayer (**GeoThings** / Industrial Technology Research Institute)

Prof. Masami KANEKO (**Rakuno Asia Information Center**)

Dr. HORANONT, Teerayut (**Earth Observation Data and Information Fusion Research Initiative**)

Mr. Kazuyuki TATENO (**Japan Platform**)

Ms. Yumi TERAHATA (**International Medical Corps**)

Mr. Shigehiro GODA (**Peace Boat**)

Mr. Syuji IKEMOTO (**Japan Civil Network for Disaster Relief in the East Japan / NPO Support Center**)

Mr. Takeshi KOMINO (**Church World Service**) – participated via Skype

Mr. Makoto TAJIMA (**Japan NGO Center for International Cooperation**)

Ms. Asako HAGA (**Japan NGO Center for International Cooperation**)

## NGO Needs Resource Management System

# ICST-Asia 2012 Close Meeting



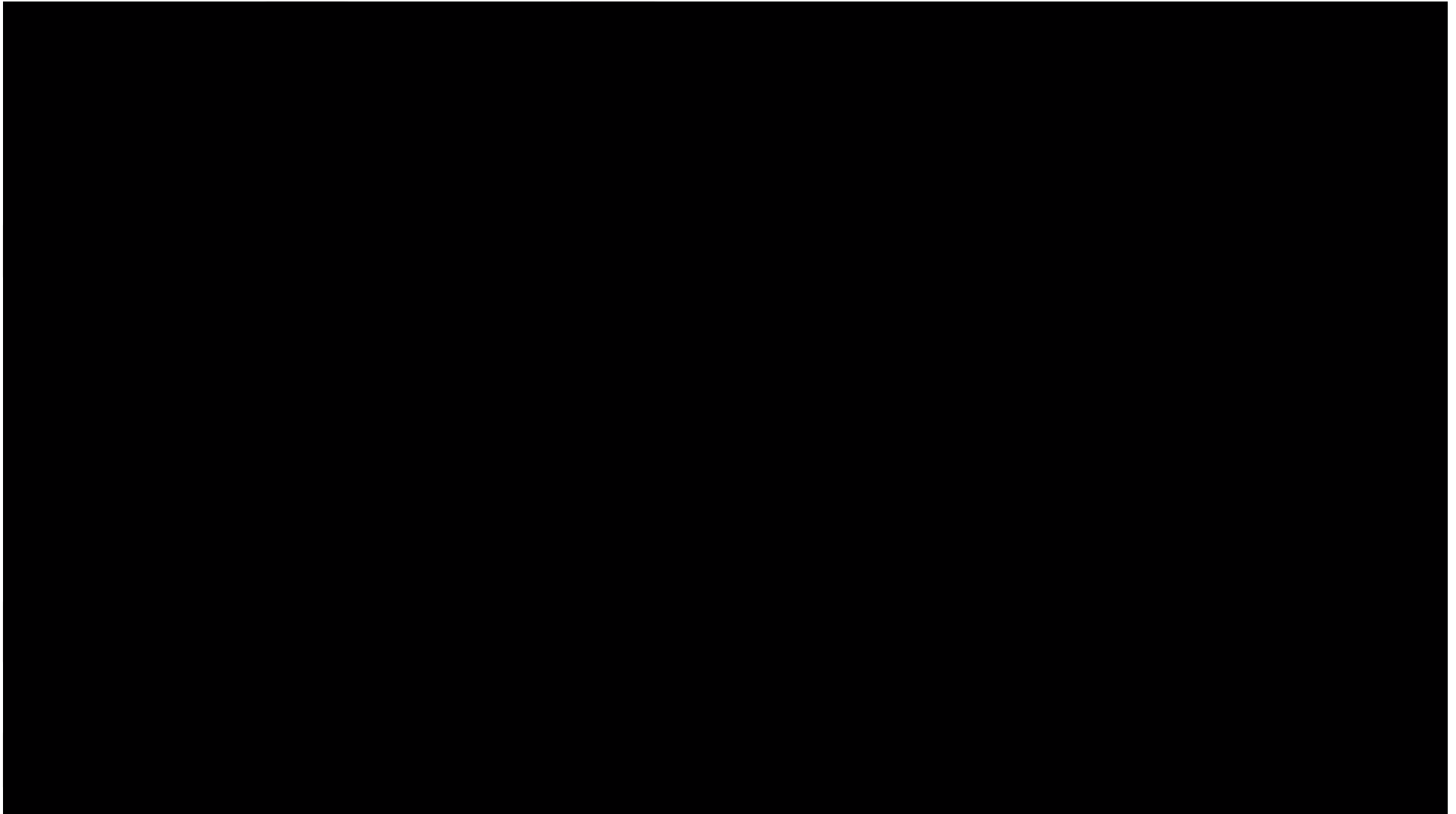
Organized by the Cultural and Scientific section of the **French Embassy** in Bangkok, the **Thailand Research Fund** and with the support of the Science Attachés posted in Asia

Phuket, Thailand, 20 May 2013

# Charter Members of OGC Moving Features SWG

Name	Organization
Ryosuke Shibasaki	The University of Tokyo
Akinori Asahara	Central Research Laboratory, Hitachi, Ltd.
Thomas H. Kolbe	Technische Universität München
Ki-Joune Li	Pusan National University
Kuo-Yu slayer Chuang	Industrial Technology Research Institute
Carl Stephen Smyth	OpenSitePlan
Jiyeong Lee	University of Seoul
Michael Botts	Botts Innovative Research
Steve Liang	University of Calgary
John Herring	Oracle
Christine Perey	PEREY Research & Consulting

# 混雑統計データ(R)による東日本大震災当日の人々の流動状況





We work on ICT as tool for humanitarian simply because we believe that saving time is saving lives

## Q & A