

# RIPRO Corporation

Okayama, Japan



## Activity

### 1) Company Profile

Ripro Corporation is a major Japanese survey marker manufacturer supplying approximately 60% of the markers in Japanese survey market.

A leader in recycled products, Ripro has been producing survey markers from recycled plastic materials for 39 years.

Located in Okayama (metro population: 1.9 million), 730 km southwest of Tokyo, with sales of 1.6 billion Japanese Yen (\$17,400,000), Ripro is the world's largest manufacturer of survey markers, producing 5 million survey markers per year (using over 4.5 ton of recycled material).



# Ecological Contribution

- RI PRO manufactures 5 million markers, saving 3500 tons (7.7 million lbs) of plastic waste such as packing film, plastic boxes, etc. in each year! Having first sold Eco recycled plastic markers 45 years ago, means 3500 tons x 45=157,000 tons (315 million lbs) total plastic waste saved.
- Eco Recycled plastic marker results in spreading new survey eco contribution!
- Trash, Plastic Waste is re-born as survey markers by Eco technology, resulting in helping save the environment by providing longer life for these plastic materials.



Eco technology to survey maker!

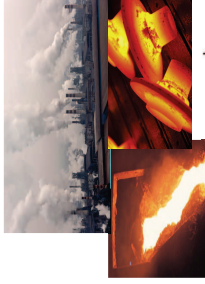
## Background Key”Japanese ECO thinking”

Limited Natural Resource!



A. Stone  
Life: Long Uses

Emission Reduce CO<sub>2</sub>



B. Brass  
Life: Rust



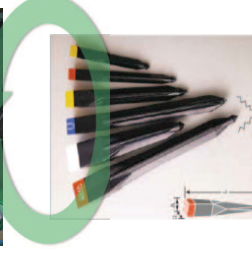
Save Forest Land



C. Wood  
Life: Rot

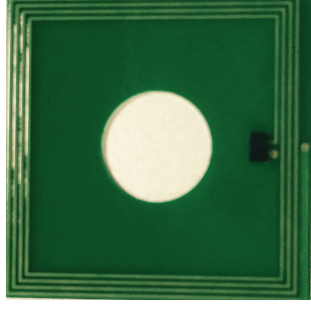


Reduce Reuse Waste Material !



D. Recycle Plastic  
Life: 20-40 years

# What is Tsunami Marker?



- Recognition- Most Japanese Knows Eco Plastic marker
- Memory and trigger for cyberspace-RFID IC tag
- Reading information tool-SMART Phone
- Long Life use-Housing inside stake

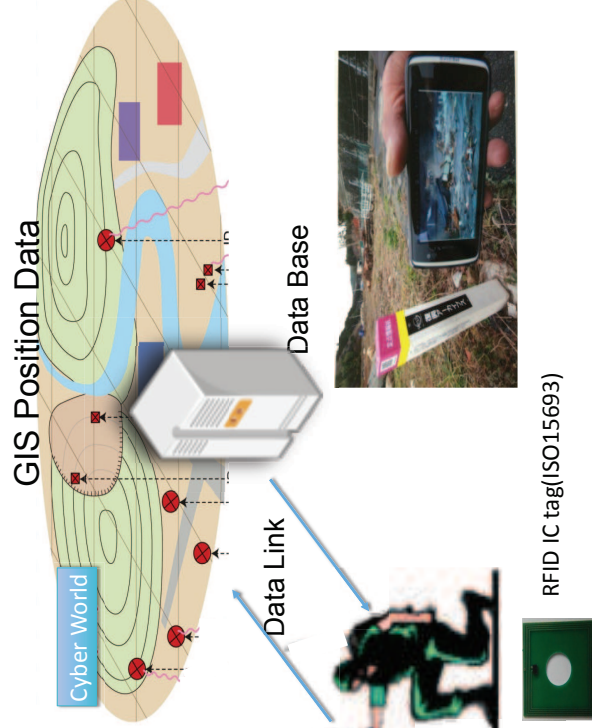


## Advance stake technology

Passive RFID with Smartphone



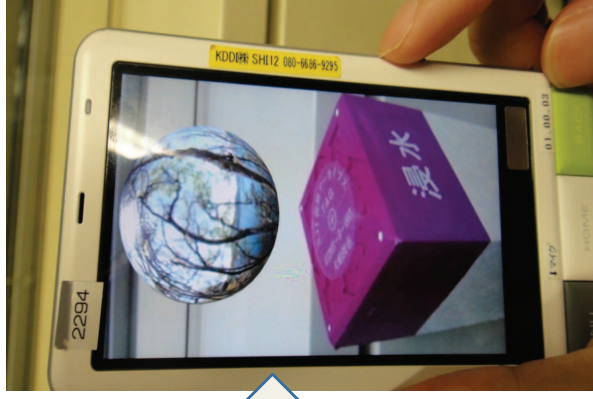
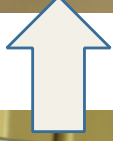
Example: Recovery from Tsunami Disaster for Archive Project



- Plastic Good for radio frequency!



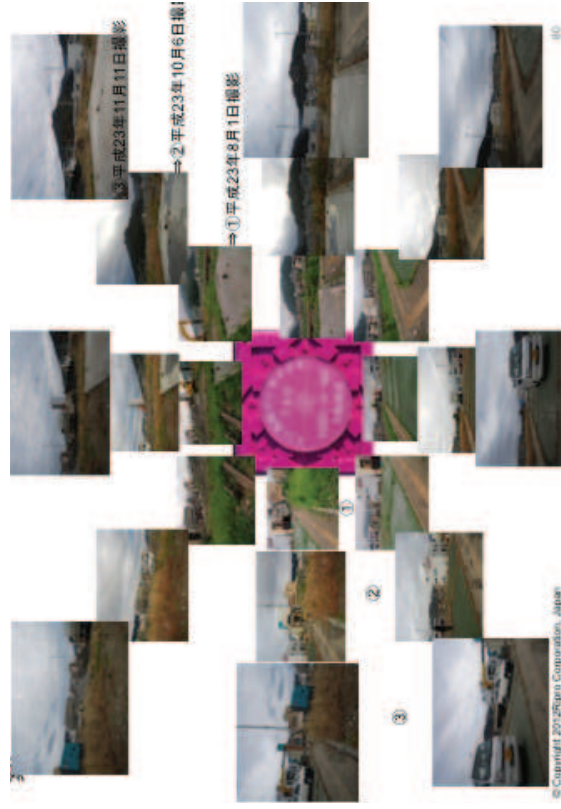
## Augmented Reality(AR) Technology with Tsunami marker (KDDI Corporation & RIPRO)



## What is inside Tsunami Information Marker?

Example:

- 1, Photo
- 2, Map
- 3, XYZ coordination
- 4, Administrator name
- 5, Telephone number
- 6, Land owner
- 7, Japan GSI position code
8. Web address
9. Unique Code
- 10.Link YouTube etc.



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## 復興情報杭とは？ 『復興情報杭』ICタグ



QRコード読み取り



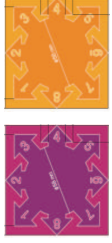
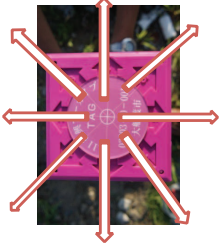
RFID (ICタグ) 読み取り



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現場で方向アナログナビ  
【杭には現場絶対視認性！】  
浸水・非浸水で色分け



情報杭アーカイブス

名称：000  
設置日：平成23年12月5日  
所有者：XXXX  
連絡先：△△△-△△△△△  
位置情報：X Y Z  
場所情報コード：●●●●●  
方角写真：  
災害情報教材：  
社会科利用：  
観光利用：  
位置情報利用：  
URL：http://www.oo.co.jp

スマートフォン画像(イメージ)



撮影方向の指示と  
RFIDを認識したアーカイブの目標写真の表示

# Landslide Detection Sensor Marker 2012

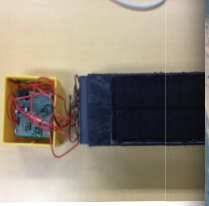
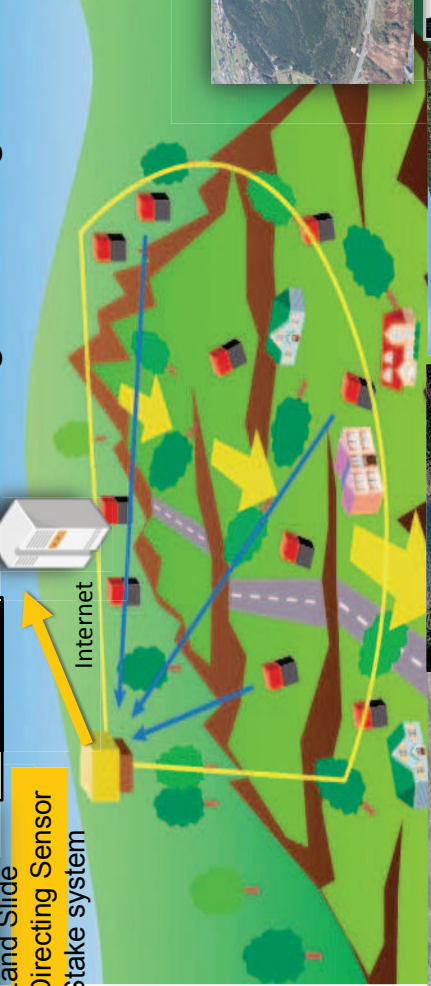




Land Slide  
Directing Sensor  
Stake system

# Advance Sensor Stake Technology Monitoring & Sensing Environment Activites

Active Sensor



## 情報発信 杭 Sensor EcoStake Solution

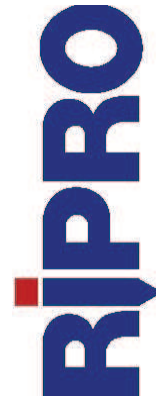


### Outline

"Easy to Carry & Bury!"  
"Easy Setting, Wireless!"  
"Field Stake detect, tell you  
Landslide\_occasion!!"



Thank you for international  
cooperation and donations for  
Japanese disasters  
2011-2016



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