



Philippines (1990)



Indonesia (2004)

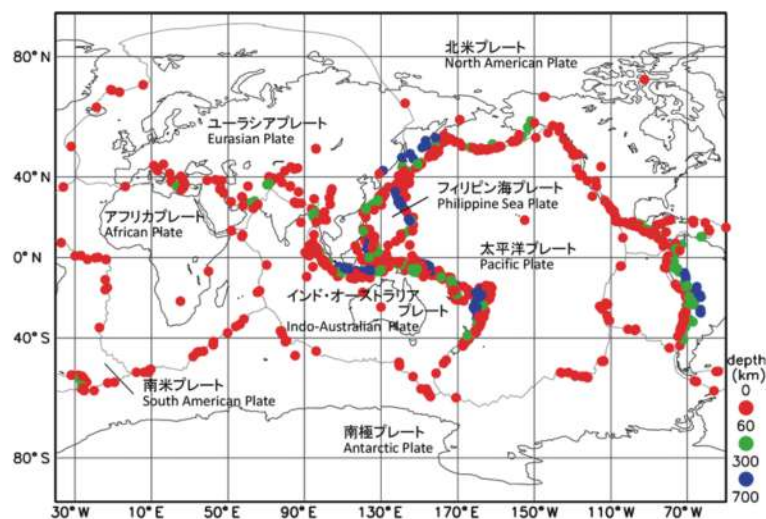


China (2008)



Japan (2011)

Source: Headquarters for Earthquake Research Promotion of Japan



▲Seismicity of the World (2011-20, Magnitude 6+)

Produced by the Japan Meteorological Agency based on US Geological Survey data



Japan Bosai Platform (JBP) is an organization established in 2014 that supports disaster risk reduction efforts worldwide by connecting international stakeholders with Japan's disaster risk reduction technologies and solutions through collaboration among industry, government, and academia.

経済産業省「令和5、6、7年度国際ルール形成・市場創造型標準化推進事業費(戦略的国際標準化加速事業:産業基盤分野に係る国際標準開発活動)」スマートコミュニティインフラストラクチャー災害リスク軽減—地震計システムの実例に基づく性能基準の手引きに関する国際標準化」にて作成

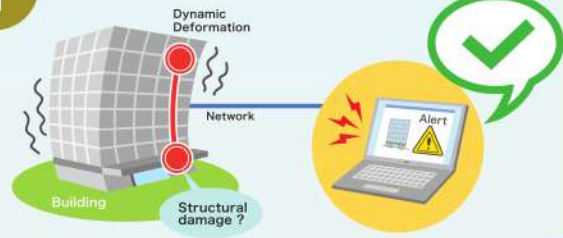
ISO 37174 & ISO 37194

Using Seismometers

For **Disaster Risk Reduction**
in **Smart Community**



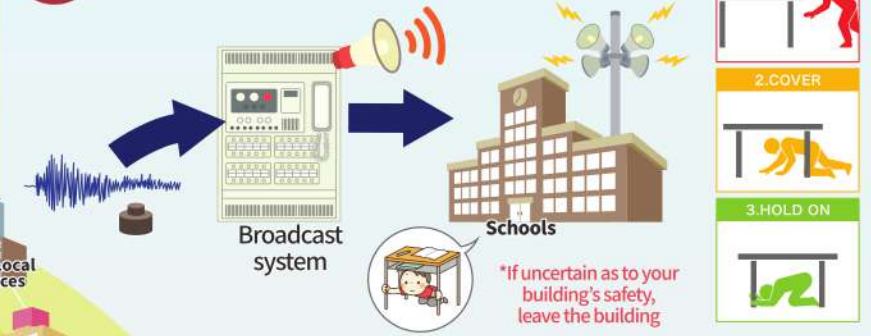
I Structural damage survey



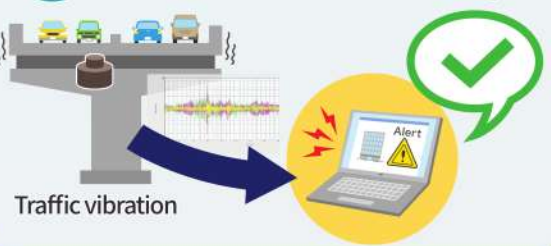
H Emergency stoppage in the event of an earthquake



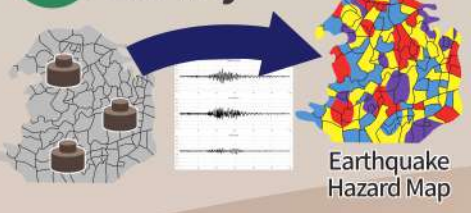
G Earthquake evacuation warning



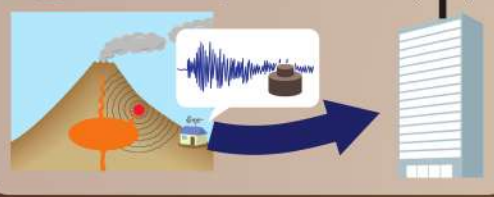
J Structural deterioration survey



A Hazardous area survey



B Volcanic tremor survey



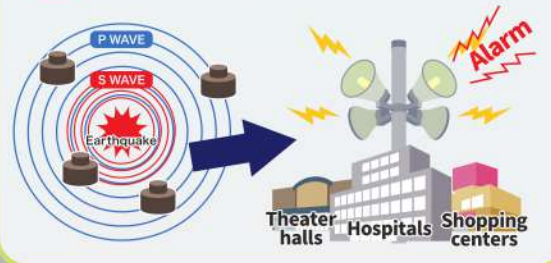
C Microseismic motion monitoring



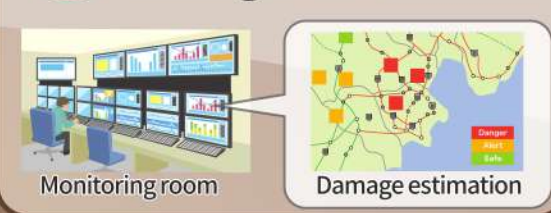
D National disaster management



F Wide-area earthquake warning



E Local disaster management



Examples of
Using Seismometers
Based on
ISO 37174

Seismometers deployed on/in the ground

Seismometer

+L Long-period seismic motion measurement

Seismometer Installer

Seismometer Supplier

ISO 37174

Confirm seismometer
category by ISO 37174

Select seismometer category to be introduced based on its intended use



Investigate seismometers declared in the self-declared category



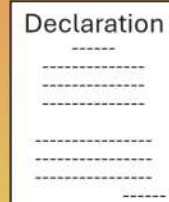
Social implementation of seismometers suited to the intended use is completed



Examples of
**Selecting
Seismometers**
Based on
ISO 37194



Confirm category to which the seismometer belongs



Create a self-declaration form listing the confirmed categories



Re-confirm the category of the target seismometer using a self-declaration form



Carry out regular maintenance and their maintenance work even after sale

ISO 37174 and ISO 37194

ISO 37174

Guidance for implementing seismometer systems

A standard for categorising types of seismograph systems used for disaster prevention and for the purpose of social implementation in accordance with their intended use

ISO 37194

Guidance for the process of selecting seismometer systems suitable for specific purposes

A standard that shows how to select a categorised seismograph system without discrepancies from both the installer and supplier perspectives

Specific category references

ISO
37174

ISO
37194

Selection method references



**Realising
earthquake-resistant
cities with seismometers
that are optimal for their
purpose**



Seismometer for long-period seismic motion

Even if they are far from the epicentre, large structures such as skyscrapers may resonate with the long-period vibration components of an earthquake and sway significantly



Example of the composition of the seismometer category in ISO 37174

I+L

Category + Subcategory

When adopting a seismograph system for disaster prevention against long-period seismic motion, please select a model with the subcategory '+L' indicated after the corresponding category in the 'Seismograph Category Self-Declaration Form'

<Specification information>

Standard number	ISO 37174:2024
Title	Smart community infrastructures — Disaster risk reduction — Guidance for implementing seismometer systems
Date of issue	February 2024

