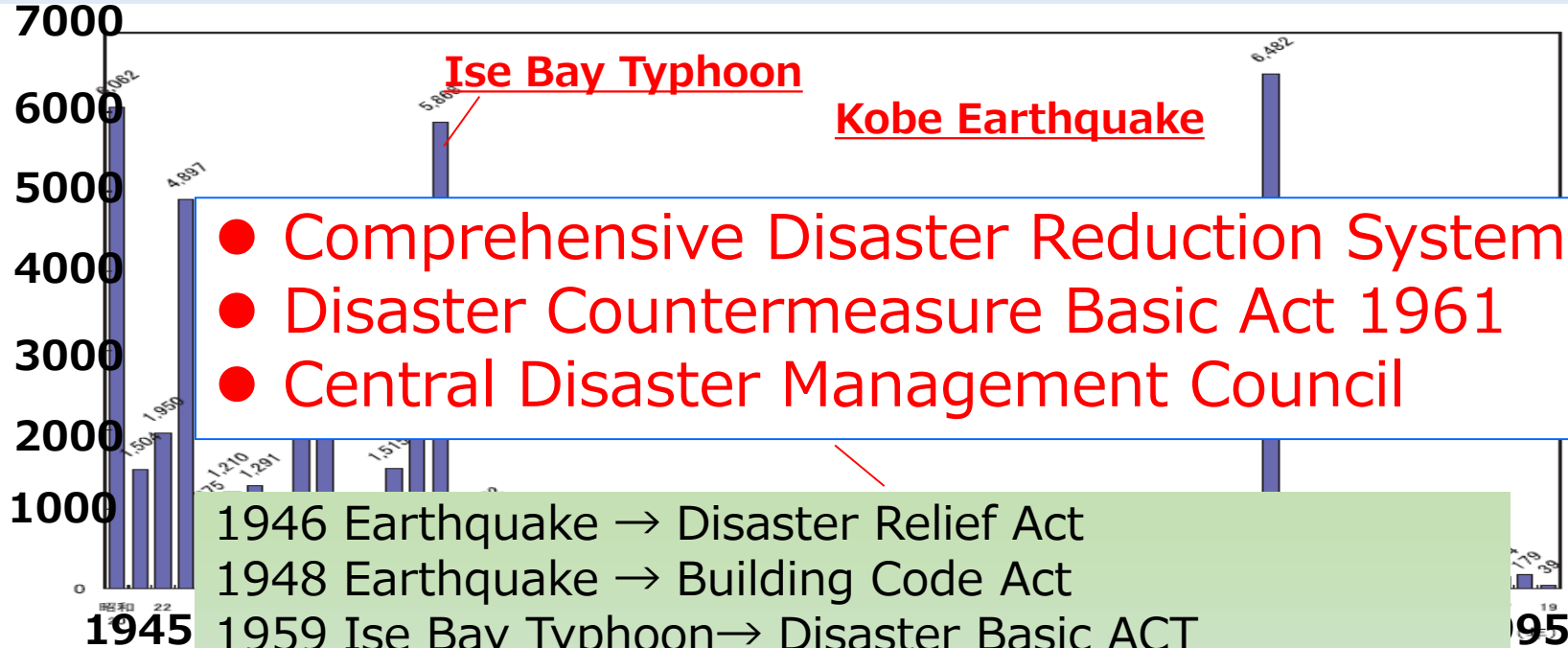


Extreme events situation and Business Continuity in Japan

Role of Standard and Conformity Assessment (C/A)
in Disaster risk reduction (DRR) Framework

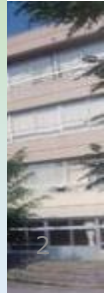
27th April 2018

Casualties by Natural Disasters in Japan



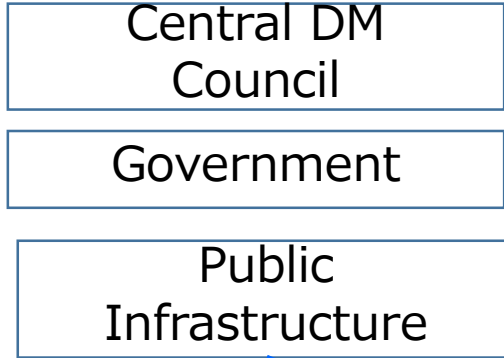
- Comprehensive Disaster Reduction System
- Disaster Countermeasure Basic Act 1961
- Central Disaster Management Council

1946 Earthquake → Disaster Relief Act
 1948 Earthquake → Building Code Act
 1959 Ise Bay Typhoon → Disaster Basic ACT
 1964 Earthquake → Earthquake Insurance
 1978 Earthquake → Rev. Building Code Act
 1995 Kobe Earthquake → Rev. of various acts
 2000 Heavy rain → Revision
 2004 Earthquake → Revision

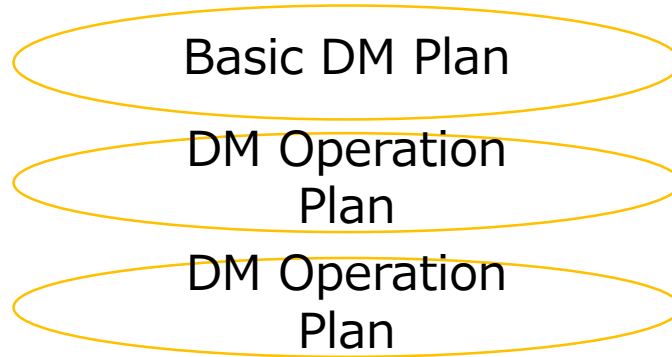
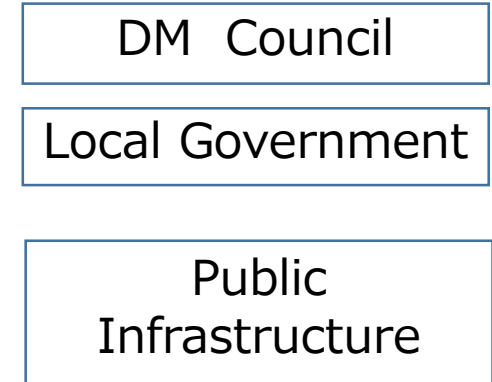


Disaster Management System

National Level



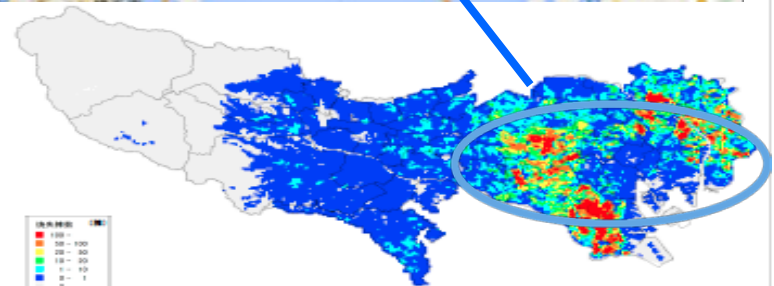
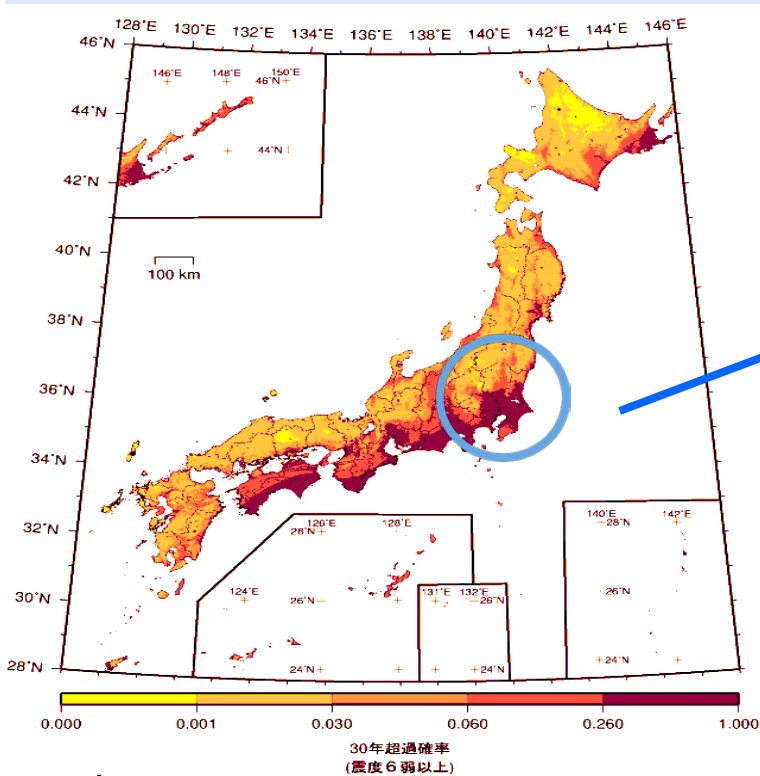
Local Level



Designated Public Organizations
Bank of Japan, Cross Society, NHK(TV), Electric, Gas, Telcom,
Highway, Airport, Railway, Transportation companies

Two blue arrows point from the 'Public Infrastructure' boxes at the National and Local Levels towards the 'Designated Public Organizations' text at the bottom.

Percentage of Scale 6 Earthquake with in 30 years



Death or Missing 11,000
 Injury 210,000
 Economic Loss JPY 112T (Direct 60% Indirect 40%)

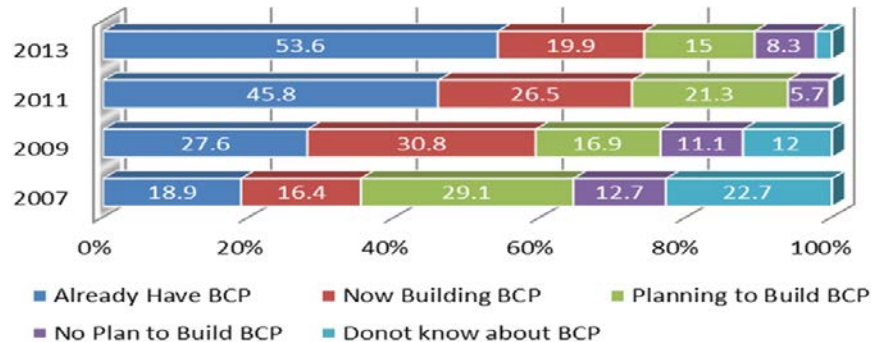
Government Strategy Indicates
 Decrease Damage by 50%

Government Strategy on Business Continuity by 2020

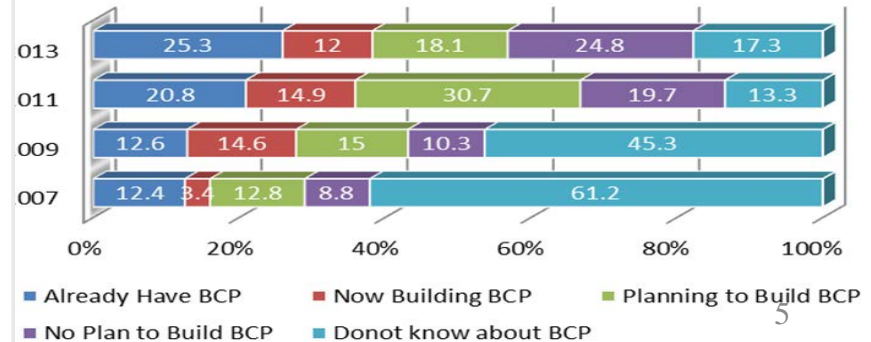
- ◆ Raise Business Continuity Planning adoption ratio
 - Large scale companies 18.9%(2007) → 100%
 - Medium scale companies 12.4%(2007) → 50%
- ◆ Cabinet Office published several guidelines
 - e.g. "BCM Guideline (2005) "
- ◆ Banks · Electricity · Gas · Telecom etc Mandatory by Regulations
- ◆ ISO22301/22313 Business Continuity Management System (2012)



Large Scale Companies



Midium Scale Companies



Great East Japan Earthquake and Tsunami 2011.3.11.

Regional Disruption

Impact to Disaster hit area

- Direct loss
- Human loss
- Building houses infrastructures
- Difficult to secure employment
- Decrease tax revenue
- Lose company and local competitiveness
- Degradation of regional moral

Supply chain Disruption

Impact to Disaster non-hit area

- Supply Chain Reaction by Indirect Losses
- 337 private firms bankrupt in 6 months
- Total 1,699 firms bankrupt in 6 yrs

Dysfunction of Public Services



237 out of 352 local governments lost function

- Emergency response activity
- Supply of relief goods
- Missing of Residential Registered Data

Public Sector's Role and Private Sector's Role



**11
days
later**



Emergency recovery operation of Tohoku Expressway

- Contributed delivery of the relief goods and supplies to the affected area and also recovery of the economy in Japan.
- But on the other hand, **this quick recovery has been accomplished from the quick resumption of private sector's labor and services** (construction).

Public Private Partnership

Resilient and Sustainable Civil Society



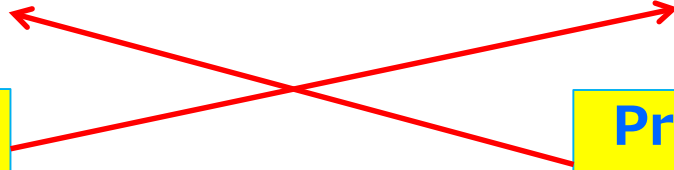
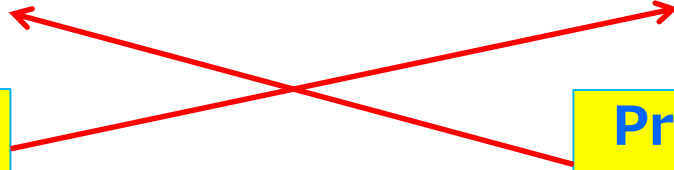
Disaster-Resilient
Private Sector

Disaster-resilient
Public Sector

Public-Private Partnerships

Public Sector
support

Private Sector's
support

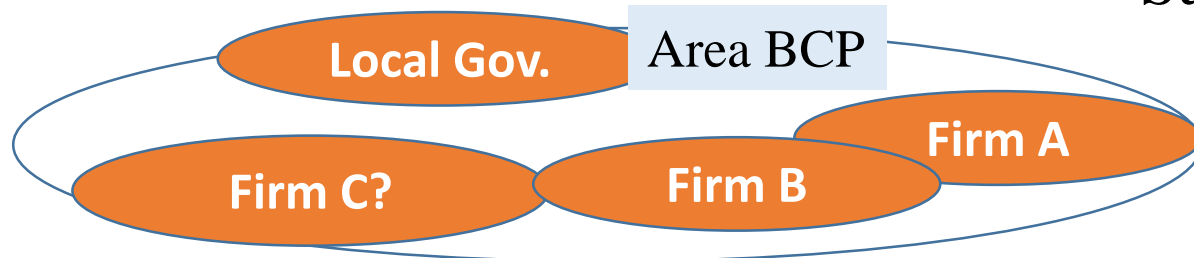


Government Strategy Public Sector BCM

- ◆ 2010 Cabinet Office published “BCM Guideline for Local Gov.”
- ◆ 2011 GEJE occurred
- ◆ Survey of BCMS status
 - 2013 Prefectural Gov. 59% (28/47) City/Towns 13% (228/1742)
 - 2015 89% (42/47) 36% (635/1741)
- ◆ 2015 Cabinet Office published “BCM Guideline for City/Town”
- ◆ 2016 Cabinet Office published “BCM case studies on response and prepared ness”
- ◆ Encouraging Developed BCP >> Start drilled and training
- ◆ Not yet >> Develop BCP quickly

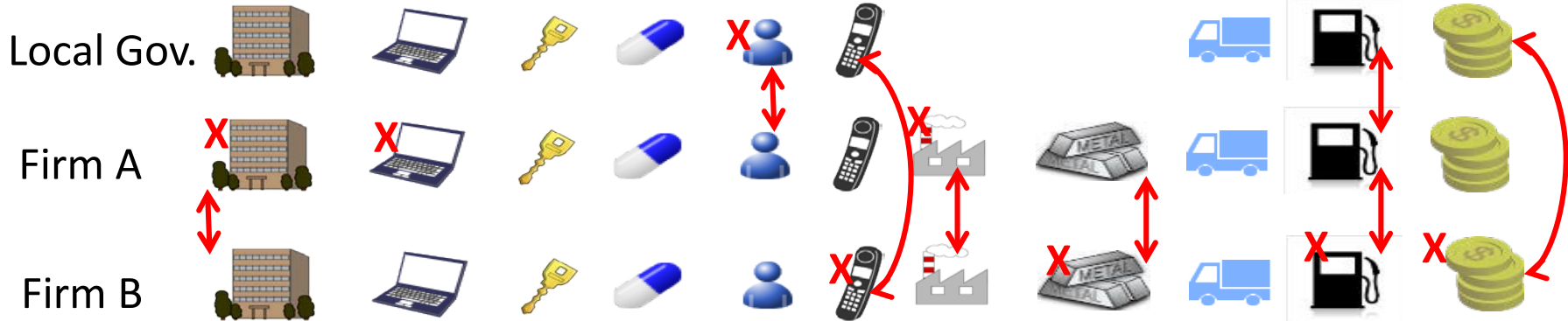
1. Multi Stakeholder / Area BCM Approach

- ◆ How to ensure the collaboration of multi stakeholder?
- ◆ It might be a part of PPP
- ◆ Who takes the lead?



Sum of Individual BCP

Not equal to
“Area BCP”



- ◆ Share and complement common resources
- ◆ Promote strategic investment and avoid redundancy

Proper policy making
for resilient society 11

2. Secure level and effectiveness of BCP/BCM

- ◆ How to measure the level of BCP/BCM?
- ◆ Is ISO Certification enough?

The solution of BCM rating

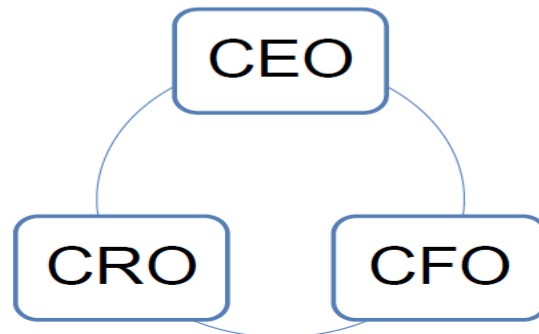
Rating and communication ; 100 questions

Disaster Risk Reduction

- A Corporate disaster prevention system
- B Life and safety preservation measures
- C Contribution to community and regional disaster prevention efforts
- D Disaster drills (emergency response, initial response, etc.)
- E Outstanding disaster prevention initiatives
- F Compliance

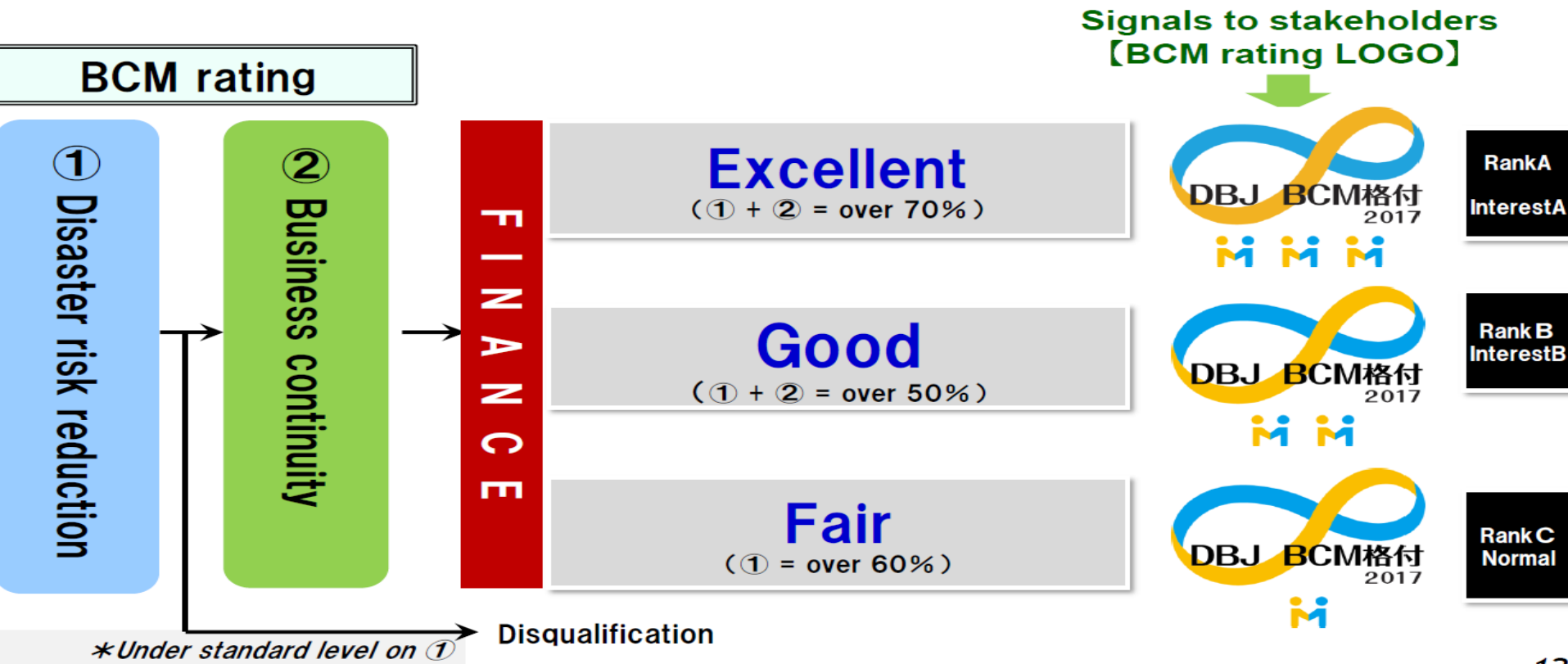
Business Continuity Management

- G Preparation of basic policy, business continuity framework, business continuity risk assessment
- H Business impact analysis (BIA)
- I Strategic thinking on business continuity
- J Outstanding components of business continuity plan
- K Risk management for supply chain and value chain
- L Business continuity education: training and review
- M Cooperation on BCM with others in industry
- N Communication and publicity activity on risk and risk management
- O Outstanding initiatives in business continuity management



The solution of BCM rating

Product design, rating process



The solution of BCM rating

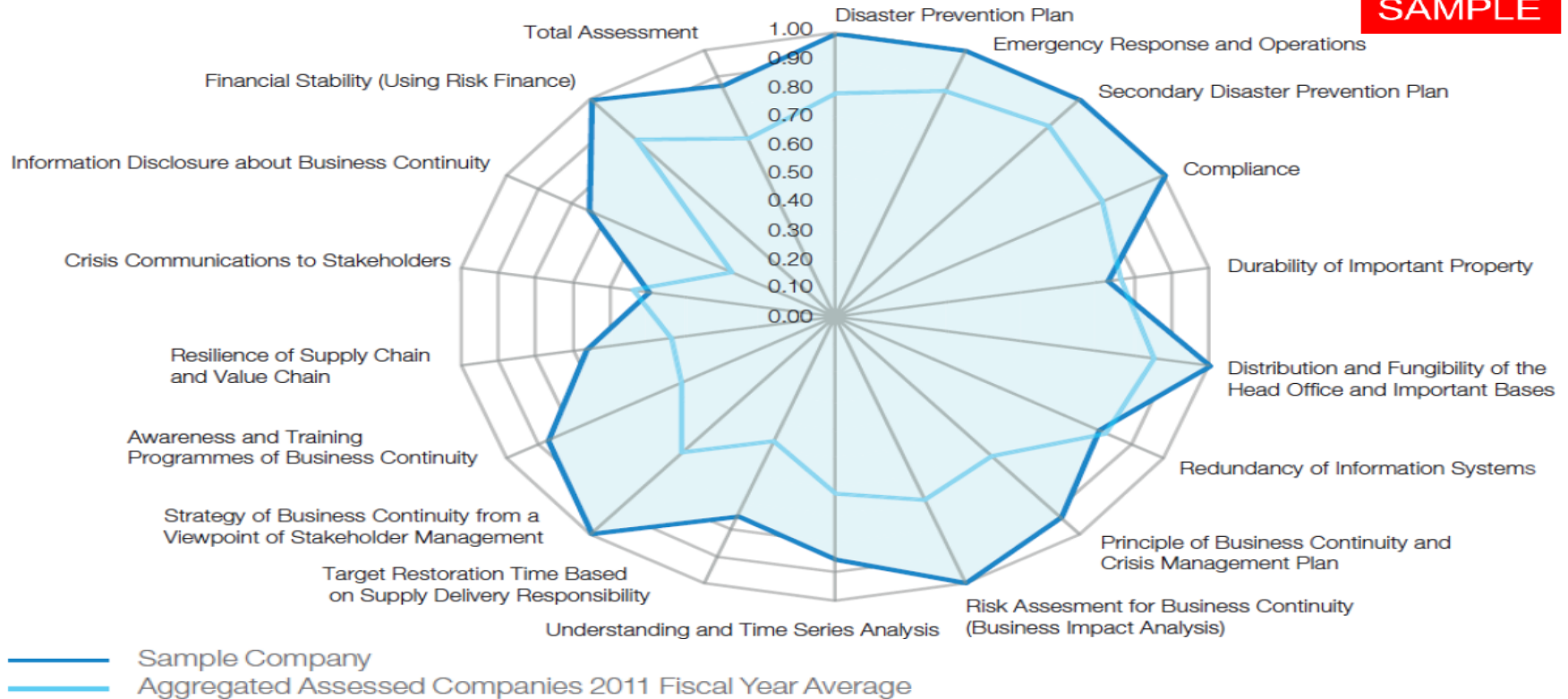
Track records : 277deals & 29.9USDbillion (2012FY-2016FY)

 美しい電子部品を究めます ALPS アルプス電気 様	 FUJITA KANKO 藤田観光 様	 NRS 日陸 様	 HALOWS ハローズ 様	 TOTO TOTO 様	 大成建設 For a Lively World 大成建設 様	 KENEDIX ケネディクス不動産投資法人 KENEDIX Realty Investment Corporation ケネディクス不動産投資法人 様	 日本をおいしくする SHOWA 昭和産業 様
 JAPAN AIR TERMINAL 日本空港ビルデング 様	 JRシステム 鉄道情報システム 様	 DAIFUKU ダイフク 様	 Sg holdings SGホールディングス 様	 西部ガス 西部瓦斯 様	 nishikawa 西川ゴム工業 様	 Suzuyo 鈴与 様	 SEIWA 清和綜合建物 様
 三ツ星ベルト 三ツ星ベルト 様	 DAIKEN 大建工業 様	 SHOWA DENKO 昭和電工 様	 NISSEI 日清ものづくりホールディングス 様	 戸田工業 戸田工業 様	 Kowa 興和 様	 ニッスイ 日本水産 様	 OPTO ELECTRONICS オプトエレクトロニクス 様
 Nagashima Resort ナガシマリゾート 長島観光開発 様	 日本曹達株式会社 日本曹達 様	 博慈会 博慈会 様	 TOYO ENGINEERING 東洋エンジニアリング 様	 TRI TOKAI 東海ゴム工業 様	 関西スーパー 関西スーパーマーケット 様	 DAIYU 8 ダイユーエイト 様	 HULIC ヒューリック 様
 KINKO リンコーコーポレーション 様	 センコン物流 センコン物流 様	 TOKAI GAS 東海ガス 様	 AGC 旭硝子 旭硝子 様	 東銀リース株式会社 東銀リース 様	 東陽倉庫株式会社 東陽倉庫 様	 日本化薬 日本化薬 様	 JCV 上越ケーブルビジョン 株式会社 上越ケーブルビジョン 様
 西武ホールディングス 西武ホールディングス 様	 Sunshine City サンシャインシティ 様	 Kanachu 神奈川中央交通 様	 近畿日本鉄道株式会社 近畿日本鉄道 様	 QTNet 九州通信ネットワーク 様	 三菱UFJリース 三菱UFJリース 様	 TAIHEIYO CEMENT 太平洋セメント 様	 JMT 日本自動車ターミナル株式会社 Japan Motor Terminal Co., Ltd. 日本自動車ターミナル 様
 NKK ニッポン高度紙工業 様	 YAKUSHIMA DENKO CO.LTD 屋久島電工株式会社 屋久島電工 様	 TOYO GOSEI 東洋合成工業 様	 ケーブルメディアワイワイ ケーブルメディアワイワイ 様	 HOTEL NEW GRAND ホテル、ニューグランド 様	 MAIYA マイヤ 様	 FUJISAKI 藤崎 様	 白謙蒲鉾店 白謙蒲鉾店 様

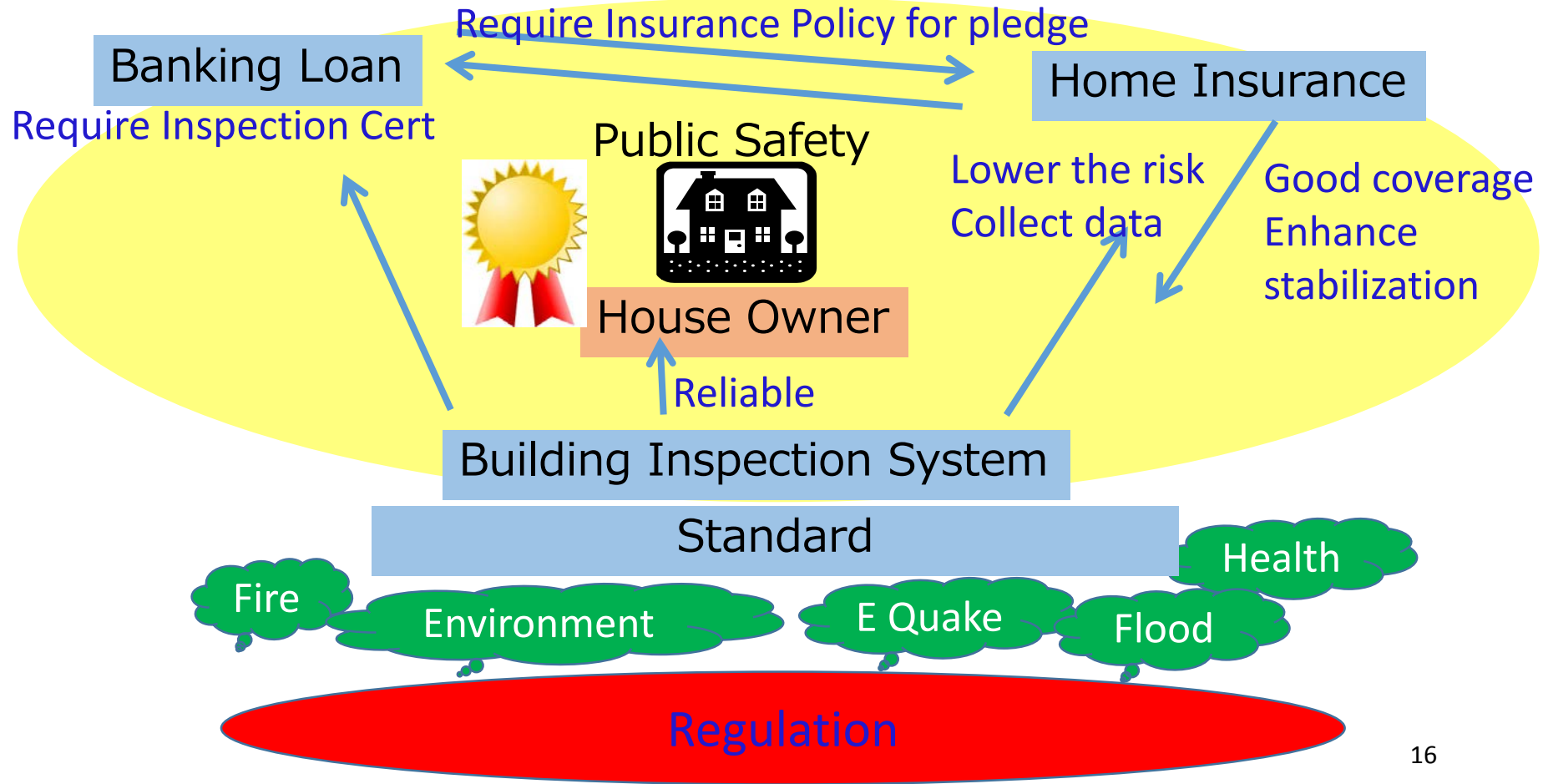
The solution of BCM rating

Feedback: The communication tool to CEO, CRO and CFO

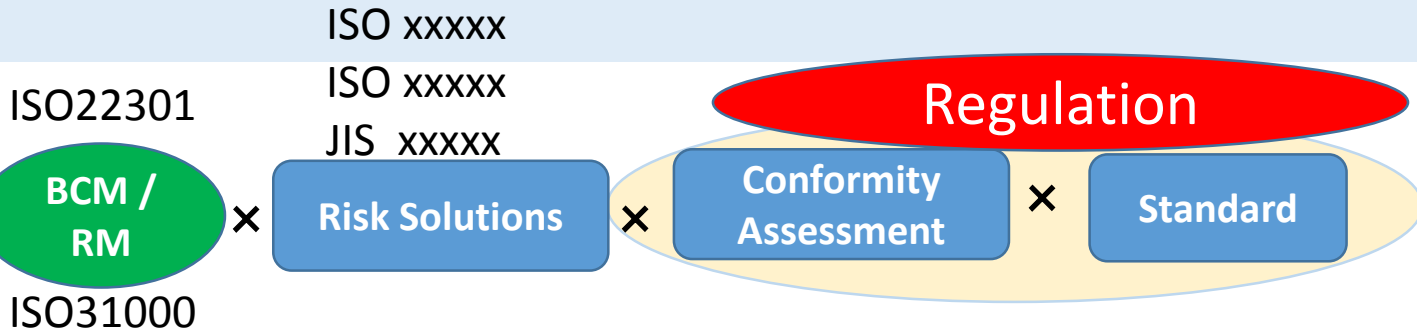
SAMPLE



Public Safety enhanced by Building Inspection System



Way Forward



Structural measures

- Retrofitting
- Tsunami Forecast
- Seawall
- Early warning system
- Evacuation Shelter

Non- Structural measures

- Enforcement of building code
- Relocation land use regulations
- Hazard map
- Evacuation
- Risk Finance / Insurance
- Awareness and drills

- Standardize the level
- Lower quality variance
- Reduce risk

- Safety of consumers
- Keep the system stable



Thank you for your attention

Takahiro ONO

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Asian Disaster Reduction Center

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