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### Introduction

### SAP runs Global Business.

105,000+

**24,000**+

**€29.52**t

employees from 157+ countries.

SAP partner companies globally

total revenue (non-IFRS) in FY2022.

280<sub>m+</sub>

**100**+

#1

subscribers in our cloud user base

development locations worldwide.

software company in Dow Jones Sustainability Index for 16 years.

We're best placed to help companies run more sustainably and become more profitable.

Sustainability data is the biggest obstacle.

We need to better measure things so we can better manage them.

Sustainability is a team sport. We either win together or lose separately.

Business likes certainty. We need clear policy framework and investments to drive energy transition.



### Akira Yoshida

Strategist, Partner Ecosystem Success, SAP Japan Fellow, IBU Public Sector, Emergency and Disaster Management, SAP SE



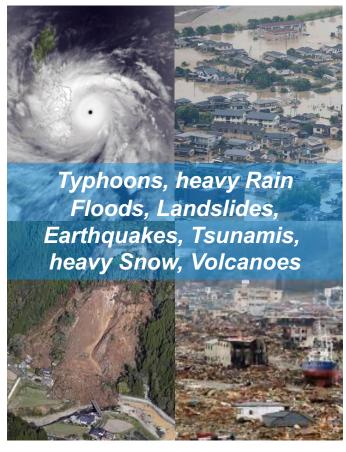
Strategist, Inspiration+ (Start-up company)



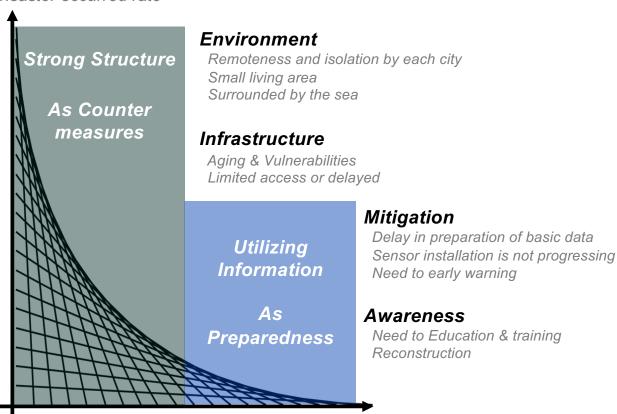
ITA UNIVERSITY Visiting Researcher, Oita University



# Disaster preparedness & countermeasures in Asia



Disaster occurred rate



Disaster scale

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# Utilizing Information, Early warning system "PREIN"

Development model

Commercial model

Predictive Insight Powered By EDISON

### Integrated data networks

High-speed real-time use and visualization of integrated data

from Realtime, Static data with IoT

Forecasting in 500m mesh Up to 15 hours ahead

Multifaceted data analysis. prediction, simulation

With Mathematical model & Al

### **Data ecosystem with Private company**

### **Utilizing information**

Creating disaster prevention plans instead of planning

with Inside & outside stakeholders

### **Extracting regional issues Building plans**

Identify regional issues, create disaster prevention plans, and create new services By Design Thinking

### Raise awareness

Improving awareness through education & training by Digital Education

### Standardization of disaster prevention technology model

Government, University, Private company with SAP Ecosystem



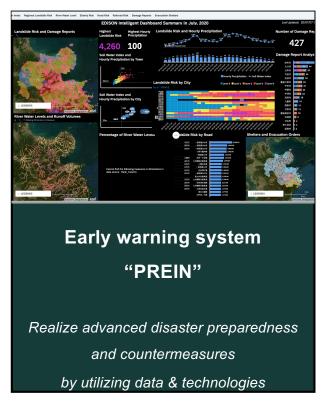
Strengthen Business Continuity Planning for Private company

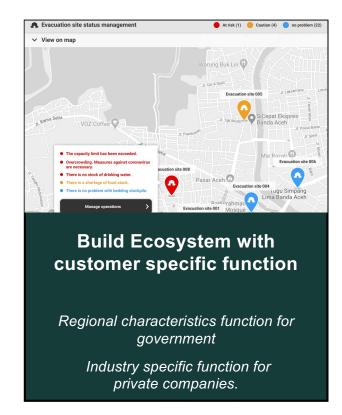
Connect to SAP ERP and Cloud Services



## How to work with customers









Design Thinking Workshop with UNDP and Banda Aceh, Indonesia



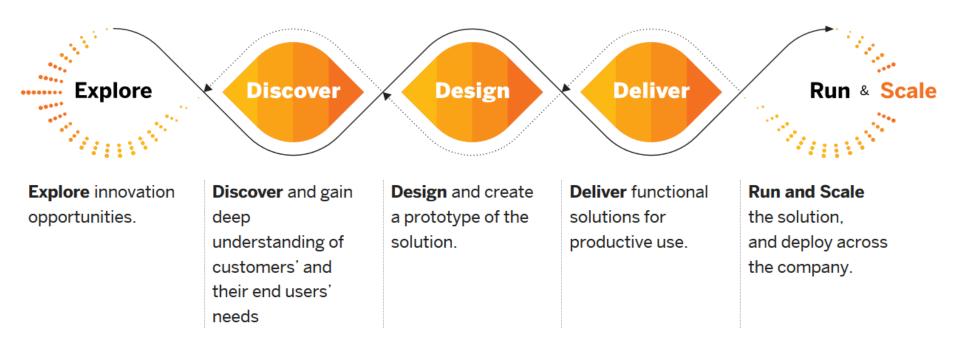


Hasso Plattner Institute of Design at Stanford University





## **Creating User-Centered Solutions for a Digital World**

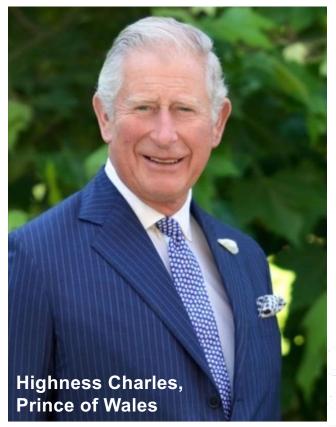


HASSO PLATTNER Institute of Design at Stanford



## Please try to imagine

70 years old, male, British, married. Celebrity and has a wealthy life. He loves dogs and loves the Alps. He have two children.

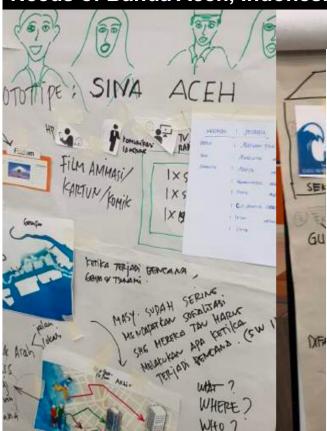




Different potential-needs & true-needs by User, Country, Area, Organization



**Needs of Banda Aceh, Indonesia** 



## MOSQUE AS CENTER OF COMMUNITY

Utilize mosque as evacuation

Equip mosque with smart

warning system

emergency supplies

technologies to be part of early

Equip mosque with stocks of

Create a network between

mosques to notify citizens

Utilize community activities in

the mosque to strengthen

education and preparation

which mosque is safe to

evacuate to

centers

3111111

- · Information availability
- · Information access
- Easy to use (mobile app)

# One place to communicate to citizens on drills and simulations

### Single portal where citizens can access information (from all bodies) such as various maps

# One place to integrate all information from government bodies

# Offline & online enable apps giving alarms, evacuation maps, and hospitals

Reduce human error and lateness by utilizing technology (artificial intelligence) to automate as many things as possible

### **EDUCATION**

### Create cartoons, movies, competition and games for tsunami education according to their grade (primary, junior, senior)

Create online forum for teaches and students to discuss about tsunami prevent

## SOCIETY INVOLVEMENT

Establishing a resilient family unit by having guidelines for each family member

Establish programs to help families through the reconstruction and economic recovery phase

# BUILDINGS & TECHNOLOGY

Identify and equip public spaces easily reachable that can be purpose evacuation buildings

Reassess location of existing and to be built evacuation buildings to take into account roads and population density

Establish a better sensor design & network designed so local villagers do not tamper with existing sensors

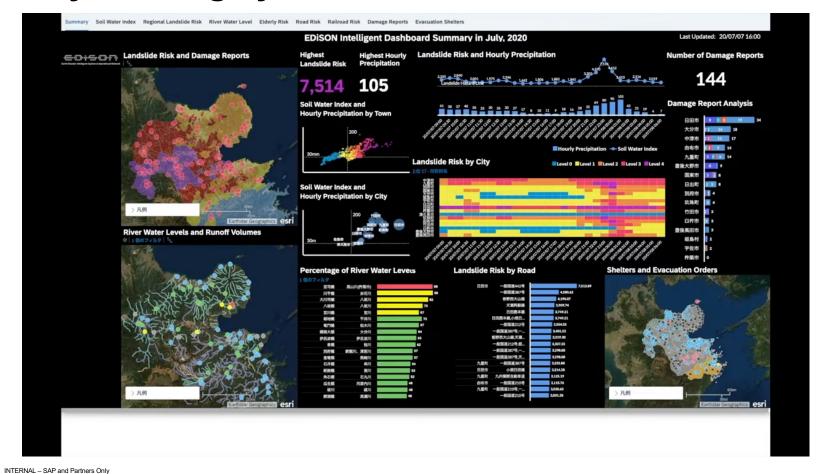
Utilize simpler technology such as short wave radio during emergencies

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# Early warning system "PREIN"





# **Build Ecosystem with customer specific function**

## **Early Warning**

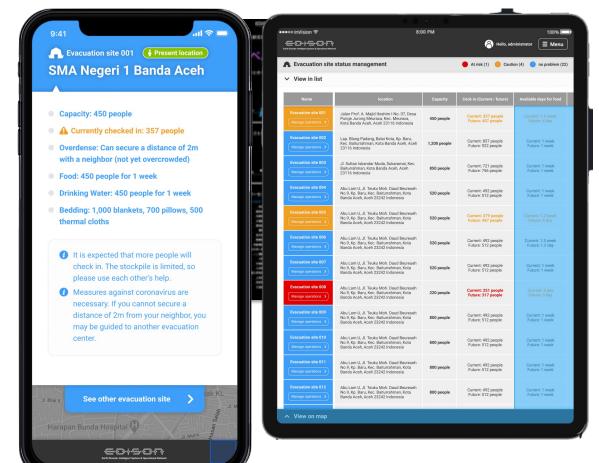
Warning information to mobile from Early Warning System PREIN

### **Evacuation Guidance**

Guide evacuation route for citizen Check-in function Notify family and organization

## Facility Management

Connect to evacuation facility management



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# **Build Ecosystem with customer specific function**

Internet service Provider & Ministry provides free internet connection



Digital Inclusion In Banda Aceh As Resilient City assistance program



### Government

Disaster response

Make policy

National basic information

sensor installation

### Same Information, Same Platform



### **Private Company**

Strength BCP Information sharing

### Citizen

Improving disaster awareness



26+ Industry
Customer in global



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