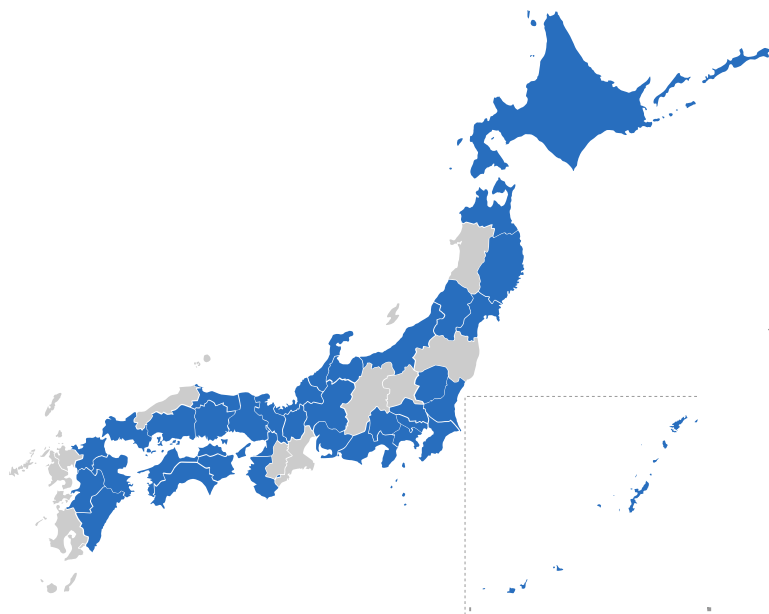


Advancing Climate Adaptation with Digital Technology

NEC's Smart City Achievements in Japan

92 municipalities

As of August 31, 2024
Including those in the implementation process



Welfare and Disaster Prevention



[Nagaoka City]
Individual Evacuation Plan Preparation Support Service

Provide evacuation action support services to create and manage individual evacuation plans digitally and to support smooth evacuation.



Roster evacuees requiring special evacuation support and prioritize them



Create evacuation route map etc.

Health care

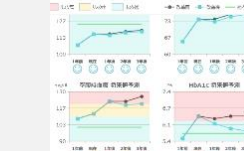


[Arao City]
Health Care Services

Contribute to the optimization of social security costs by providing advanced health care service including disease risks prediction test.



Forness Visuas Test



NEC Medical Checkup Result Predicting Simulation



Digital Health Care Handbook

SC PF



[Kumamoto Prefecture]
Wide-area dashboard and FIWARE

Provide the wide-area dashboard for municipal residents for disaster prevention and transportation /tourism with the prefecture's leadership.

Sightseeing Able to check sightseeing routes and understand congestion when traveling.

旅行前	事前に混雑状況を把握	近隣の観光施設を検索	バスの運行情報を閲覧
観光施設を確認し、観光ルートを計画	ライブカメラの映像で、目的の観光地が混雑していることを確認	GPSと連携し、最寄りの観光施設と、利用できるバス停を検索	目的の観光地までのバス情報を閲覧し、公共交通機関を利用したスムーズな移動が実現

In Normal time



Disaster Prevention Utilized for reference during evacuation

In Contingency

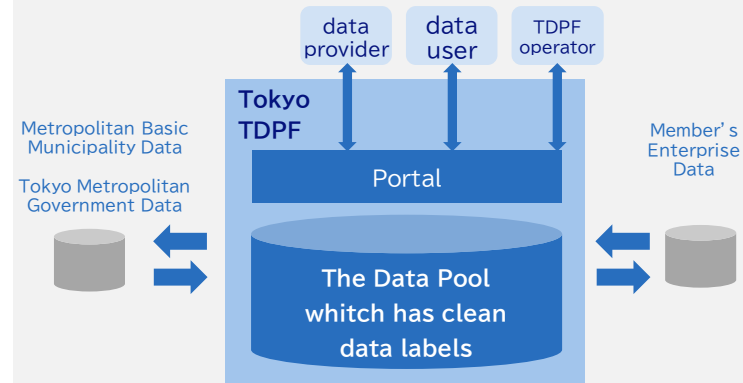
平時(自宅)	避難時	避難所への移動時	避難所到着後
避難所を確認し、非常時の避難行動計画作成に活用	GPSと連携し、現在地から最も近い避難所を確認	個別地図情報からスムーズに Google Mapと連携し、避難所までの最適な経路や時間を確認	河川水位などの防災関連情報をグラフ等で確認
地図情報閲覧(PC)	地図情報閲覧(スマホ)	Google MAP連携(スマホ)	情報閲覧(スマホ)

SC PF



[Tokyo]
Tokyo Data Platform(TDPF)

Provide the public-private data distribution platform with Tokyo's leadership, and support from the basic design to the verification/the implementation.



NEC Success Cases of Smart City Projects in Global

37 cases / 7 countries

As of Aug 2024 (incl. in progress)

U.S.

Virginia
Road DX. Smart intersection demonstration experiment



Argentina

Tigre
Emergency call/ City operation center



Buenos Aires
Traffic management/ Traffic enforcement



Buenos Aires Province
Urban monitoring / Smart pall



Chile

Santiago
Urban monitoring / Citizen mobile apps



Spain

Santander
Optimization of waste collection route



Alicante
Traffic information analysis



Murcia University of Murcia
Campus network



Conil
Smart tourism



Cordova
Water level & River level Monitoring/ Electric power



Malaga
Smart building



Maspalomas
Smart tourism



Badajoz
Digital tourism



Portugal

Lisbon
Integrated operation center



Porto
Citizen mobile apps



India

Saharanpur
Urban monitoring/ Traffic management



Gurgaon
Urban monitoring/ Traffic management



Kalyan-Dombivali
Urban monitoring/ Traffic enforcement



Tirupati
Urban monitoring/ Traffic-management /Water supply



Hubli-Dharwad
Urban monitoring/ Waste mgmt/ optimization



Silvassa
Urban monitoring/ Traffic management



Thiruvananthapuram
Urban monitoring/ Waterline/ Parking



Meerut
Traffic management/ Traffic enforcement



Indonesia

BSD City/Sinar Mas Land
Urban monitoring / Traffic management/ Parking /Drainage



Our Journey toward Management for Sustainability

1899

Establishment of Nippon Electric Company The Founding Spirit of "Better Products, Better Services"

Create customer satisfaction and pleasure by consistently providing better products and services.



Founder: Kunihiko Iwadare

1977

C&C Announced The Integration of Computers and Communications

The aspiration of enabling people throughout the world to connect anytime, anywhere, and with anyone, is aligned with the SDGs aspiration to "leave no one behind."



Announcement of C&C at INTELCOM 77

2013

Transformation into a Social Value Innovator

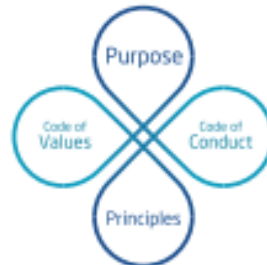
Orchestrating a brighter world

As the value expected by customers and society changed from our tangible technologies and products to the intangible creation of value, we responded under the Mid-term Management Plan 2015 by declaring our intention to transform into a Social Value Innovator.

2020

NEC Way

To mark the 120th anniversary of our founding, we revised the NEC Way.



2025

Mid-term Management Plan 2025 Seize the Future Together

In May 2021, we formulated the Mid-term Management Plan 2025, a five-year plan to achieve the NEC Way and the NEC 2030VISION. Under this plan, we are promoting purpose-driven management with strategy and culture positioned as one.

NEC 2030VISION

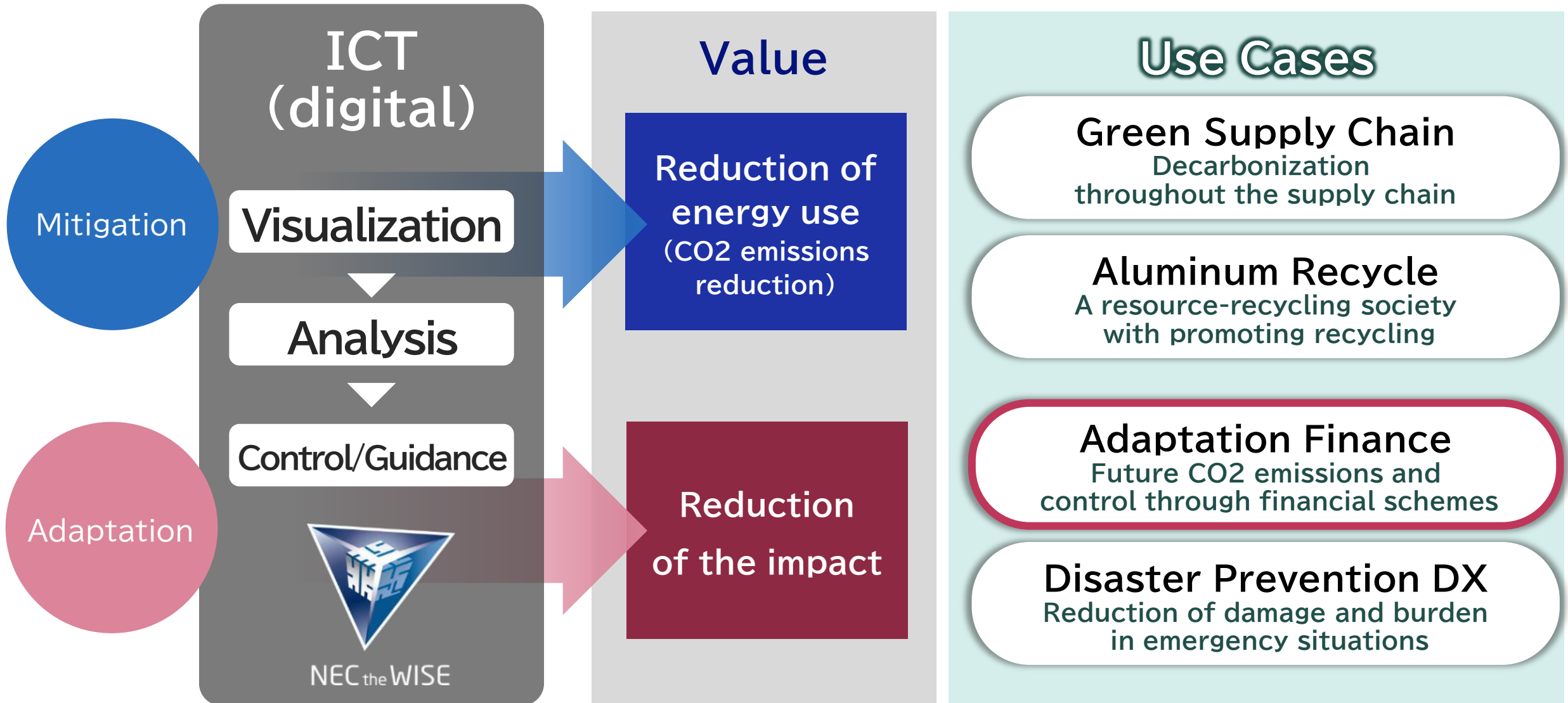
Life

Society

Environment

SUSTAINABLE
DEVELOPMENT
GOALS

Advancing Climate Change Adaptation with Digital technology

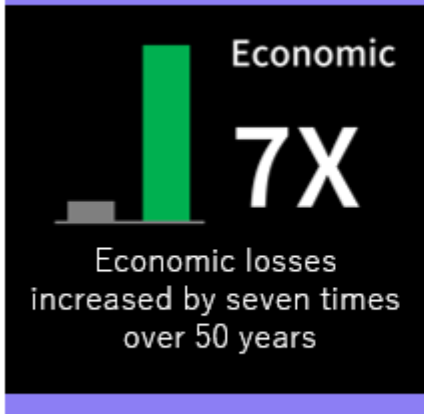


Advancing Climate Change Adaptation with Digital technology

Strengthening climate change adaptation measures is most important for protecting human lives, society and the economy.



Economic losses due to natural disasters



However

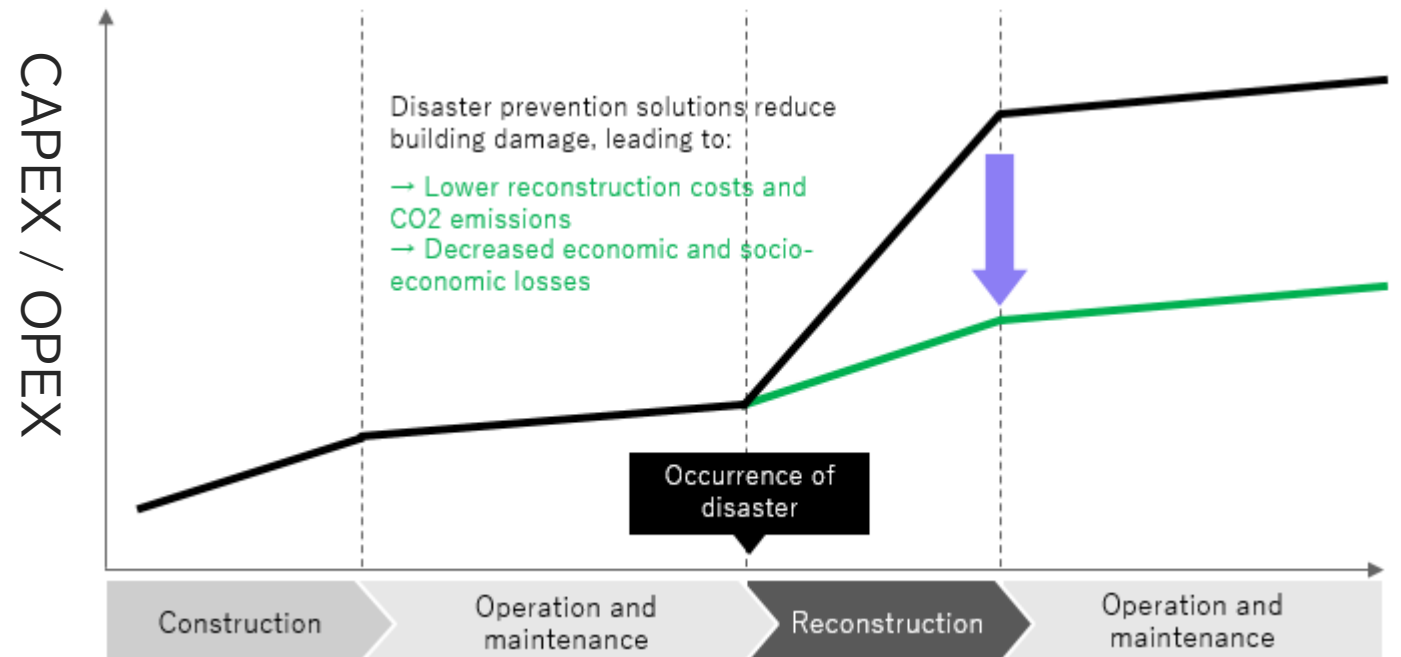
Investment into "Adaptation"

Only **1/18** of investment into Adaptation in comparison to Mitigation

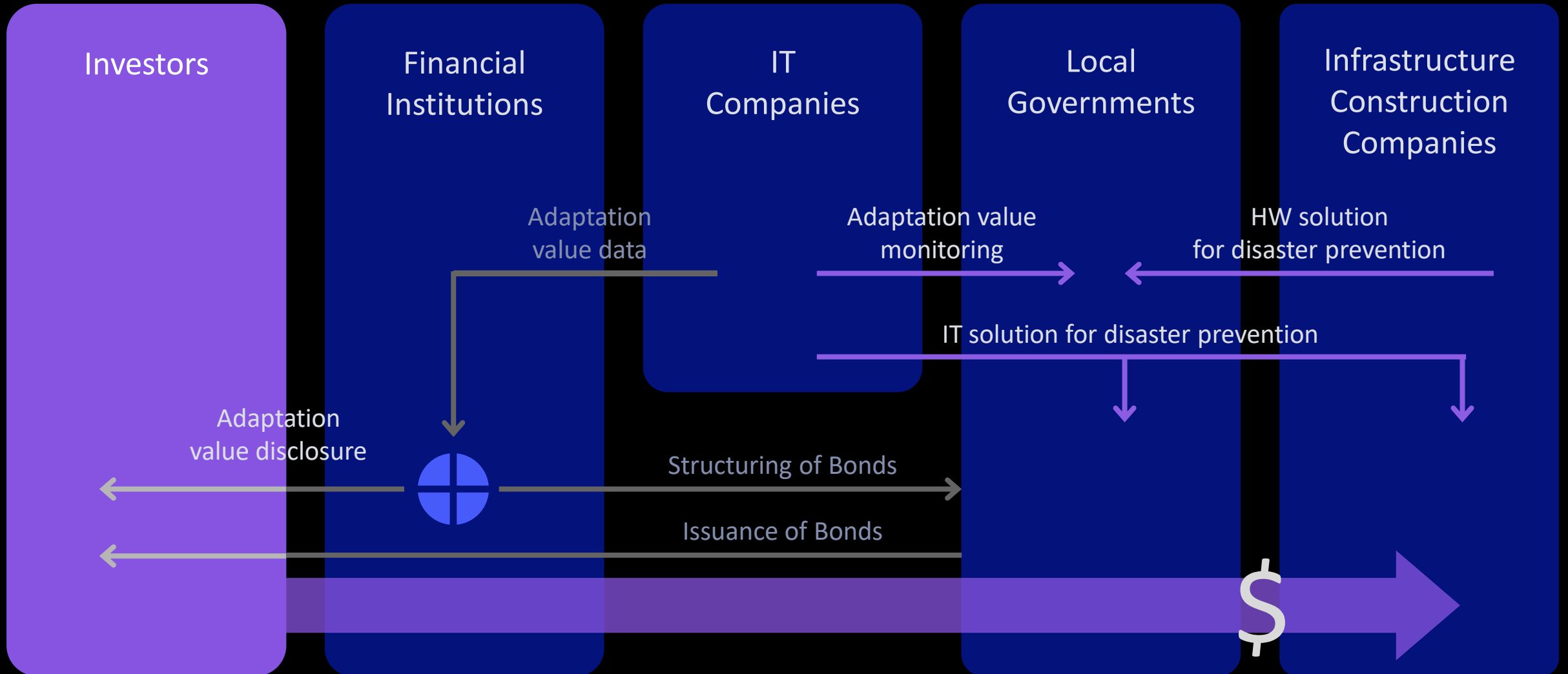
Source: World Meteorological Organization (WMO) 2021 Annual Report / BBC

Our proposal

- We calculate the mitigation effects on disaster damages, including carbon value, social-economic value, and economic value, through our disaster prevention solutions.
- Leveraging methods like derivatives and insurance, we transform these assessments into premium financial products that can be traded.



New Adaptation Finance Approaches



CASE Flood in Japan

Actual Impact
of disaster

Economic loss \$ 5.1 billion
GHG emission \$ 0.16 billion

Simulator development: Institute of Industrial Science, the University of Tokyo, Giza Vision Inc., NEC Corporation

Simulated Impact
of disaster

Economic loss \$ 1.1 billion
GHG emission \$ 0.04 billion

Simulator development: Institute of Industrial Science, the University of Tokyo, Giza Vision Inc., NEC Corporation

Calculated Value

Disaster damage
reduction value \$ 4.0 billion

Environmental value \$ 0.12 billion



Adaptation value

\$ 4.1 billion

NEC Indonesia and Sinar Mas Land Strategic Partnership for Adaptation Finance

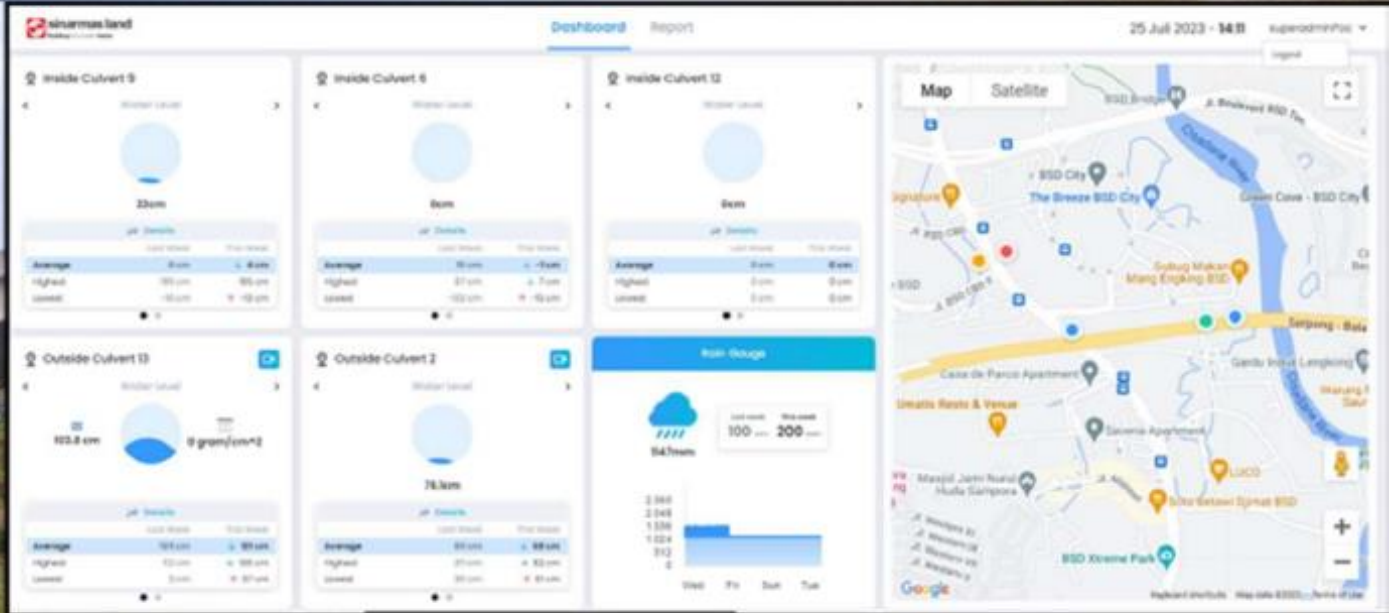


Sinar Mas Land and NEC Indonesia will develop risk visualization solutions for natural disasters while collaborating with insurance companies, banks, and investment firms.

NEC Smart City Project

Smart City,
BSD city, Indonesia

Smart Drainage solution
with Sinar Mas Land



Average Water Level	
Last week	This week
75 cm	76 cm
↑ Highest	
Last week	This week
91 cm	91 cm
↓ Lowest	
Last week	This week
65 cm	68 cm



Advancements in Digital Technology

Enable Calculating Adaptation Values

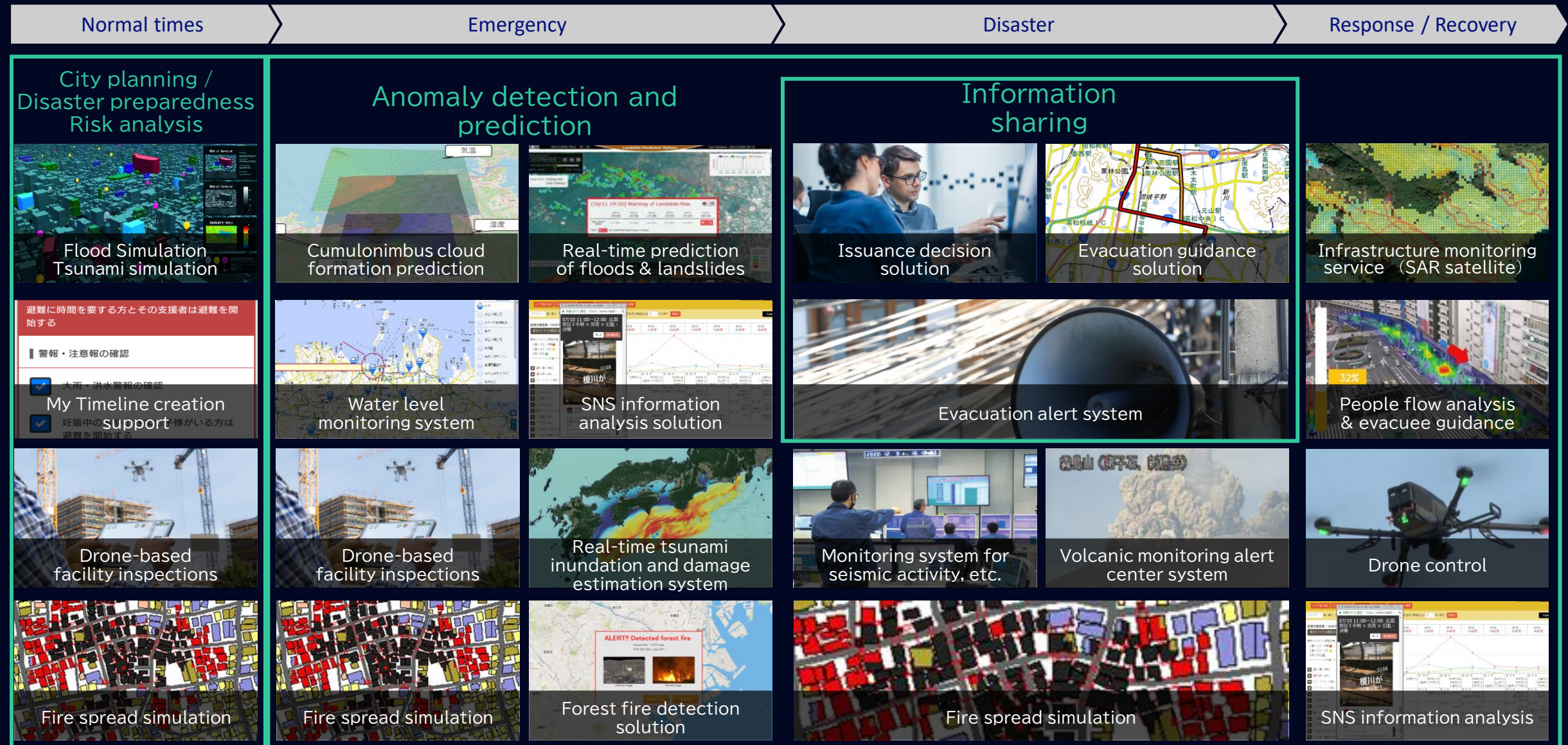
A satellite with solar panels is shown in space, orbiting Earth. The background is a view of the planet's surface with clouds and the curvature of the horizon.

1 Accurate observation of the real world

A satellite image of a city, showing a dense grid of streets and buildings. The image is rendered in a blue and white color scheme, highlighting the urban layout.

2 Processing and prediction of complex and enormous information

NEC disaster prevention and mitigation solutions





NIEC

Advancing Climate Adaptation
with Digital Technology