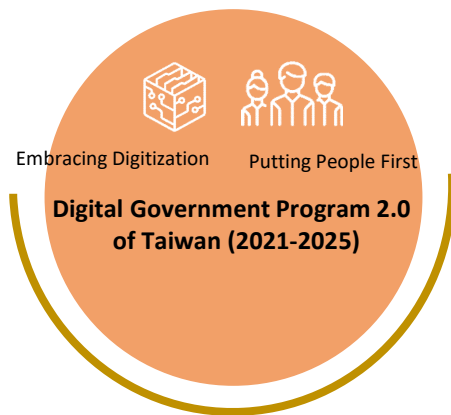


Digital Government Program 2.0 of Taiwan (2021-2025)



National Development Council

2020.9

A large orange circle with a thin green border is positioned on the left side of the slide. The text 'Presentation Overview' is centered within this circle.

Presentation Overview

1. Smart Government Development Trends
2. Program Planning Status
3. Key Tasks

1. Smart Government Development Trends

Digital Government Program of Taiwan Implementation Milestones (2019)

1

Digital Service

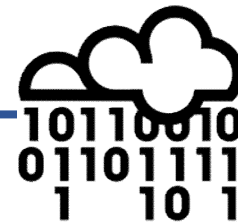


- Employment benefits card online application
Application time **reduced from 45 days to 23 days**
- Real estate online integration
Counter visits reduced **from 3 to 1**
- AI medical imaging
140,000 images processing time drastically **reduced from 13 months to 10 hours**
- Complete channel for social welfare applications
Integration of online and offline application process, **400,000 people served annually**

● Data source is “Data Usage Status and Key Follow-up Points for Promotion” Presentation from the Industrial Development Bureau, MOEA (2019/08/29)

2

Open Data



- Open data sets
Over **43,000 data sets**, **73%** in accordance with gold standard, data service industry output over **NT\$93.6 billion** *
- Maximizing open data
Government procurement data and numerical models add value to applications

3

Public policy participation



- Online participation platform
There were 7,619 suggestions, 183 successful cases, a success rate of **4.7%**

Digital Government Program of Taiwan Performance Targets

12 departments to jointly implement 29 programs, 4 year budget total of NT\$6.24 billion

2019 Program Overall Performance Targets

High-Standard target achievement

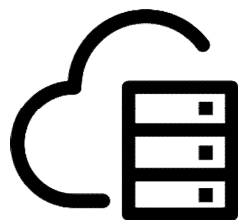
1 One stop digital service

- There were 8 service demonstrations
- Digital government public satisfaction rate reached 75.3%



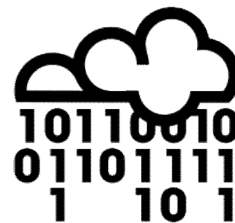
2 Government cloud service infrastructure

- Government cloud service and infrastructure satisfaction reached 77%



3 Government open data

- Government open data reached over 13.84 million downloads



4 Public policy online participation

- Public policy online participation platform satisfaction rate 85.9%



President Tsai's science and technology policy smart government policy objective

- Using open data to enhance the administrative capabilities of smart government
- Opening smart government for a diverse range of uses by the public to create a data economy

Tsai Ing-wen's 2 visions for technology

Vision 1

Entering the space industry so that Taiwan is not absent

Vision 2

Establishing the Ministry of Digital Development to respond to the age of the Internet of Things

#The next four years will be brighter

Tsai Ing-wen's 2 visions for technology

Vision 1

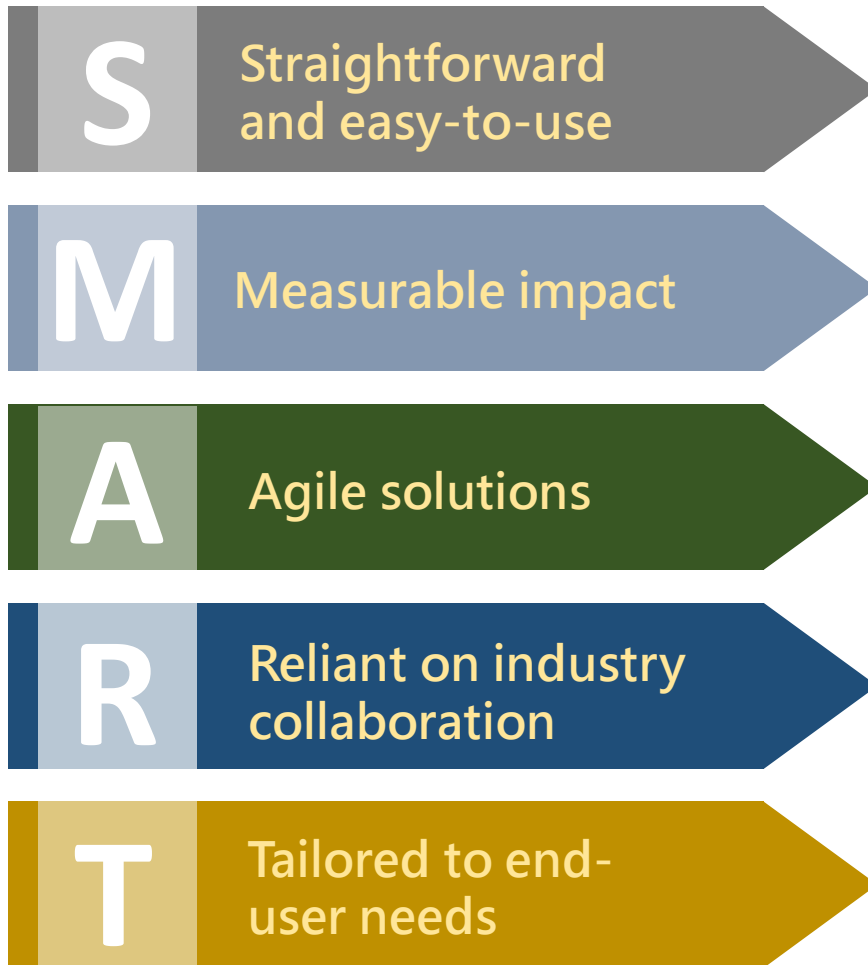
- Entering the space industry so that Taiwan is not absent

Vision 2

- Establishing the Ministry of Digital Development to respond to the age of the Internet of Things

#The next four years will be brighter

Accelerating the digital transformation of government in the post Covid-19 age



1. Digital default



- 1 Restructuring government operations using emerging technologies
- 2 Using digital channels to deliver priority messages to the public
- 3 Government administration formulate strategy based on proven methods

2. Reuse of data



- 1 Expanding the release of high-value government data for external use
- 2 Innovative and precise services for compliant use of personalized data

DIGI+ 2.0



DIGI+ 2.0

Innovation-driven Online Society

-Online society combining physical and virtual spaces, where people are connected to everything via AI, 6G and robotics...

Diverse and Inclusive Society

-A society that integrates new immigrants and new residents, a cross-cultural, cross-generational, diverse and inclusive society

Circular and Sustainable Society

-A recycling, zero waste and zero pollution society

2030

Data Governance,

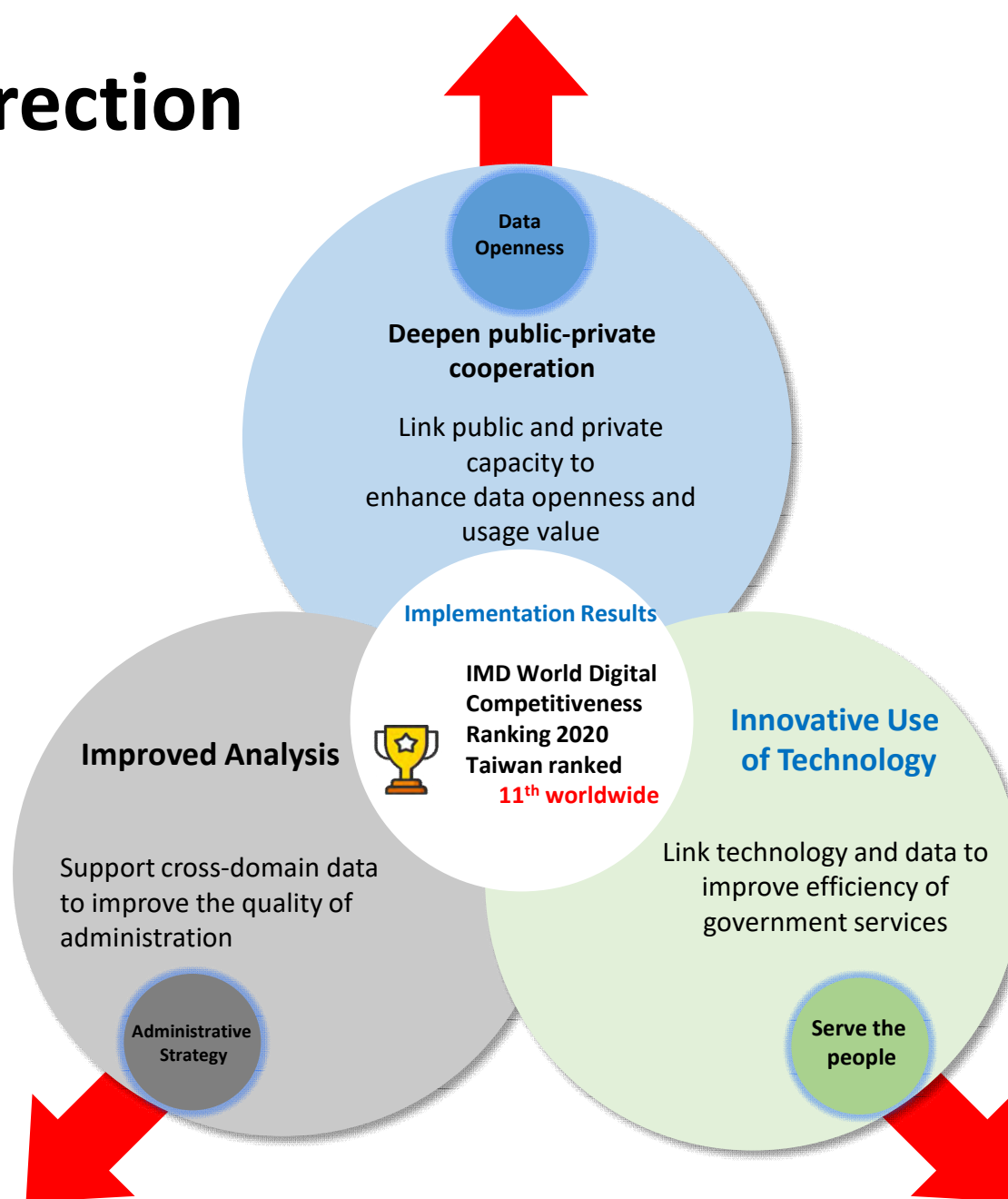
Data Transfer Security,

Advanced Networks,

& Digital Transformation

are the key issues for future online society

Future Direction



Implementing Smart Government to Support Nationwide Digital Transformation

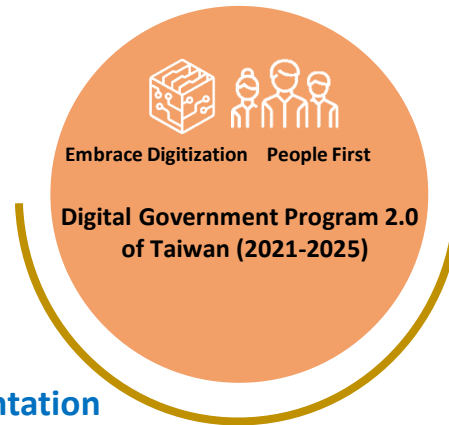
Smart Government Action Plan Approved by the Executive Yuan on June 6th 2019



Infrastructure
Use the new E ID card to connect all government services
Establish a secure and trustworthy T-Road

3 Main Goals
Open data transparency
Link governance networks
Integration of service functions
- maximize value-added applications
- optimize decision-making quality
- innovative smart services

3 Supporting Measures
Establish legislation adapted to Taiwan
Implement privacy protection
Greatly enhance data security



Implementation

Support

- 1 Accelerate release of data to drive data reuse
- 2 Utilize people's data to create a new vision of governance
- 3 Link technology applications for a new era of innovative services
- 4 Build an accurate and reliable digital infrastructure

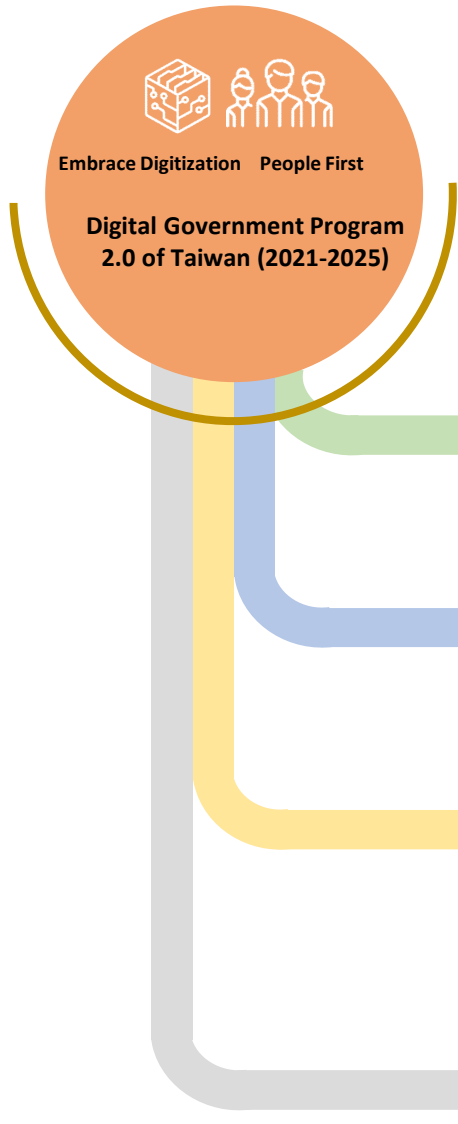
DIGI+ 2.0
(Under discussion)

**2030
Smart Nation**

- Data governance
- Data transfer security
- Advanced networks
- Digital transformation

2. Program Planning Status

Program Goals and Promotion Strategies



Embrace a digital future

Create an open and innovative smart government

Goal 1:
Accelerate release of data
to drive reuse of data

Strategy 1. Open data legislation
Strategy 2. Create a data-friendly
environment



Goal 2:
Utilize public welfare data
to create a new vision of
governance

Strategy 3. Establish demand-oriented
data analysis strategy



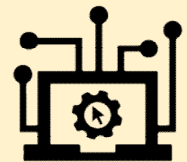
Goal 3:
Link technology
applications for a new era
of innovative services

Strategy 4. Enhance emerging
technological applications for smart
services



Fundamentals:
Create an accurate and
reliable digital
infrastructure

Basis 1. Create high-security data
transfer facilities
Basis 2. Supporting measures for
complete digital transformation



Goal 1 Expediting Release of Data to Drive Data Reuse

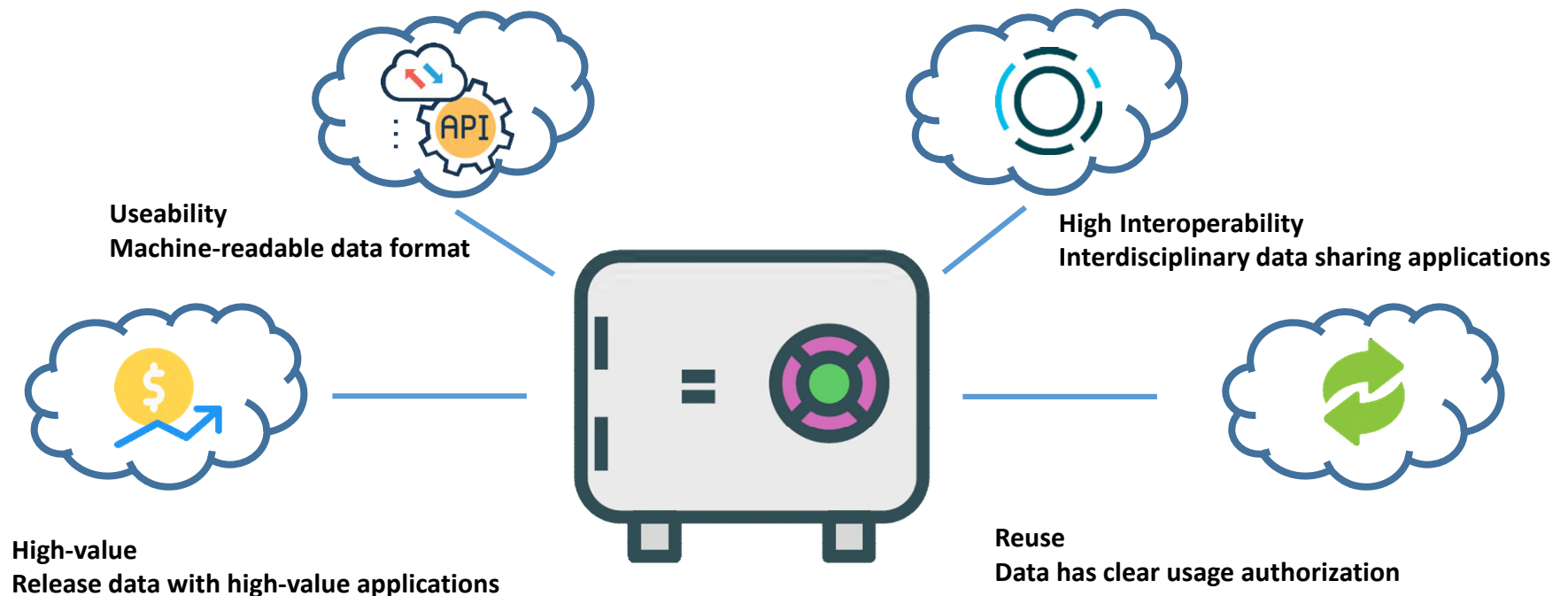
Strategy 1 Promoting Open Data Legislation

Accelerating Data

- Formulate a specialized law for open data
- Expand release of high-value data sets
- Improve the quality of data sets

Utilizing Data

- Proceduralize data reuse
- Interdisciplinary and interoperable data applications



Goal 1 Expedite Release of Data to Drive Data Reuse

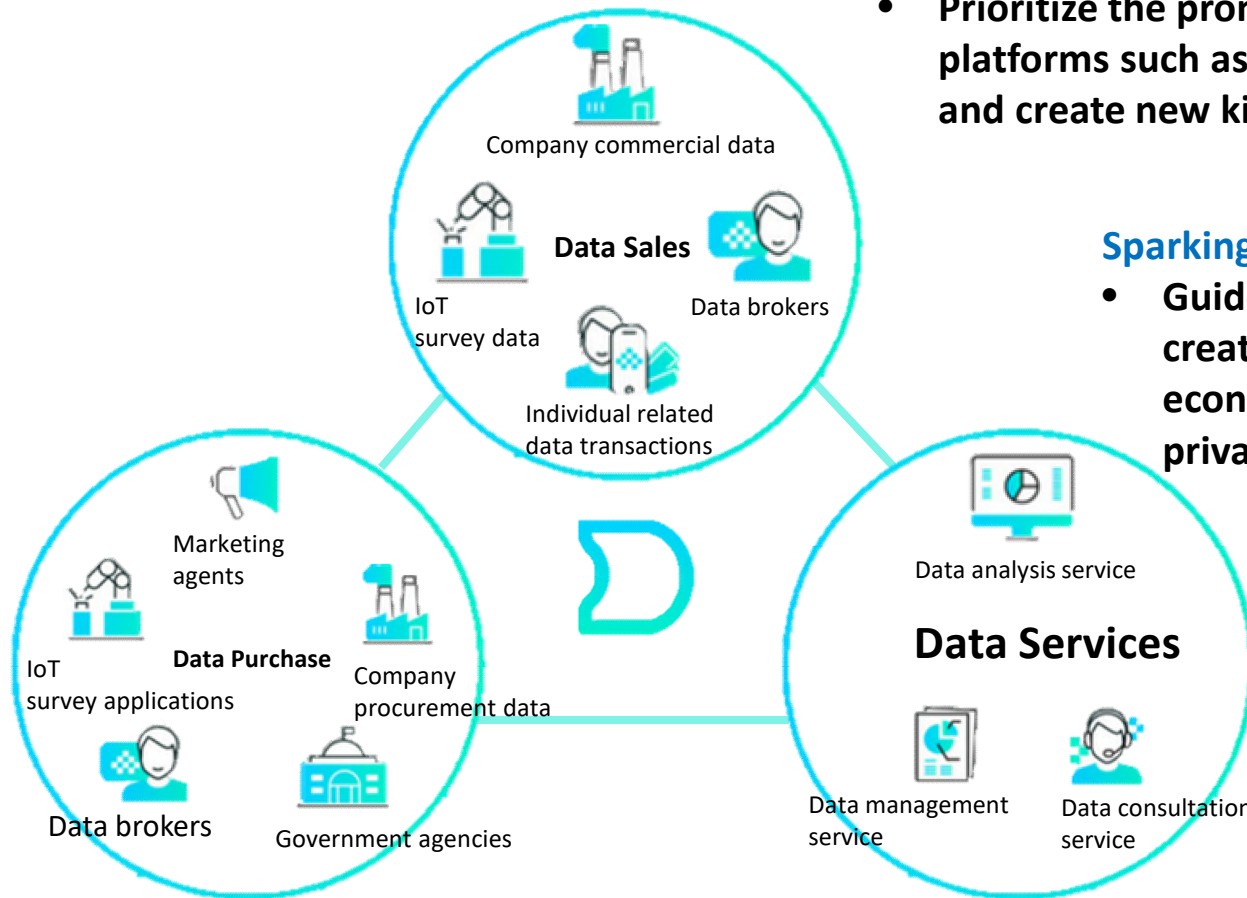
Strategy 2 Creating a data-friendly environment

Market Promotion

- Prioritize the promotion of public data market platforms such as public transit and financial products, and create new kinds of data services

Sparking Creativity

- Guide innovative enterprises to release creative energy and solve social and economic problems using public and private data

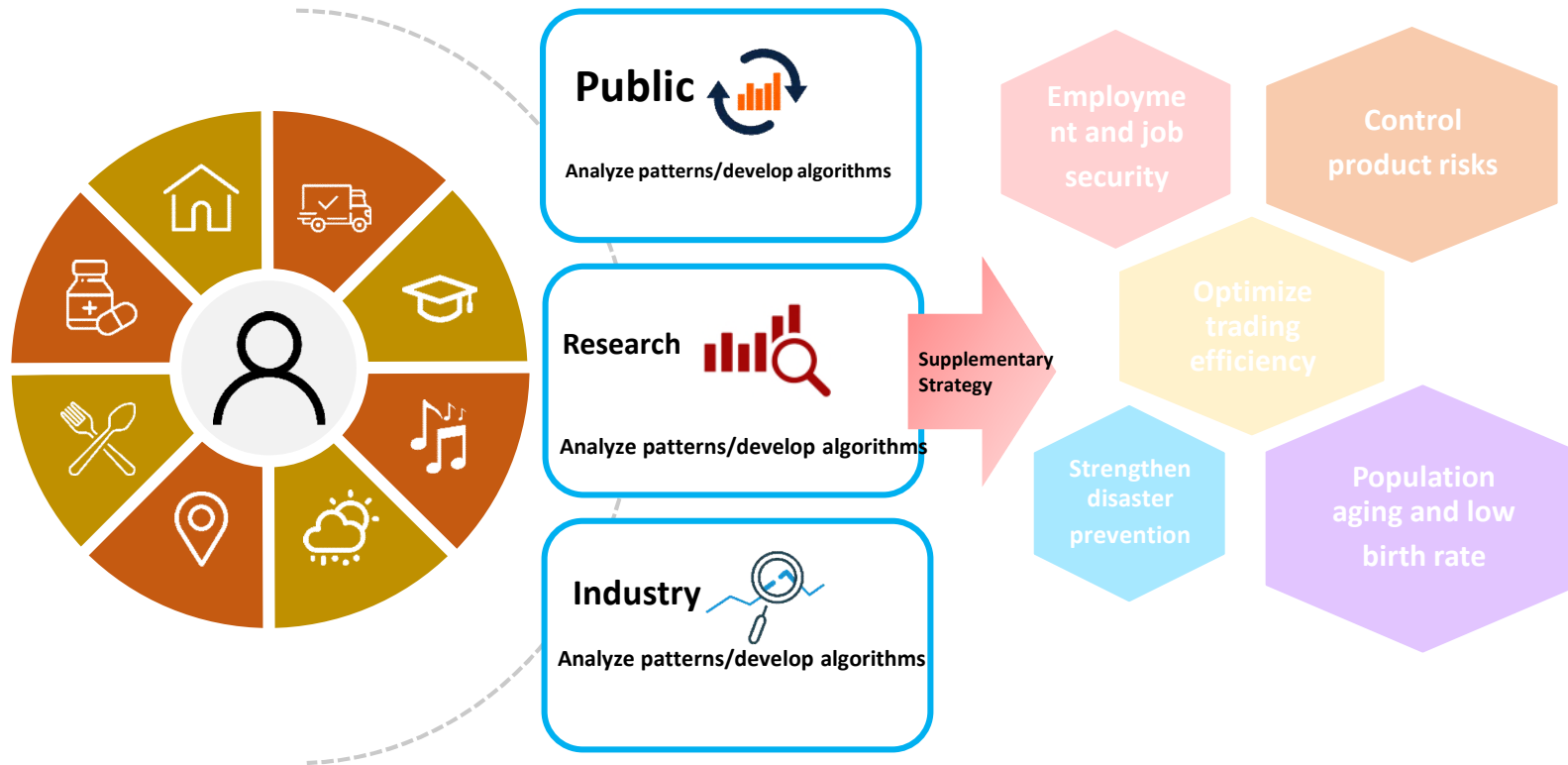


Setting an Example

- Implement data application guidance, with public and private development of applications for government data

Goal 2 Utilizing Public Welfare Data to Create a New Vision of Governance

Strategy 3 Establish a Demand-oriented Data Analysis Decision-making Model



Chain Data

- Find data required for evidence-based government decision-making
- Enhance geographic map resources to support administrative decision-making

Optimal Strategy

- Solve public welfare issues
- Evidence-based governance

Goal 3 Link Technology Applications for a New Era of Innovative Services

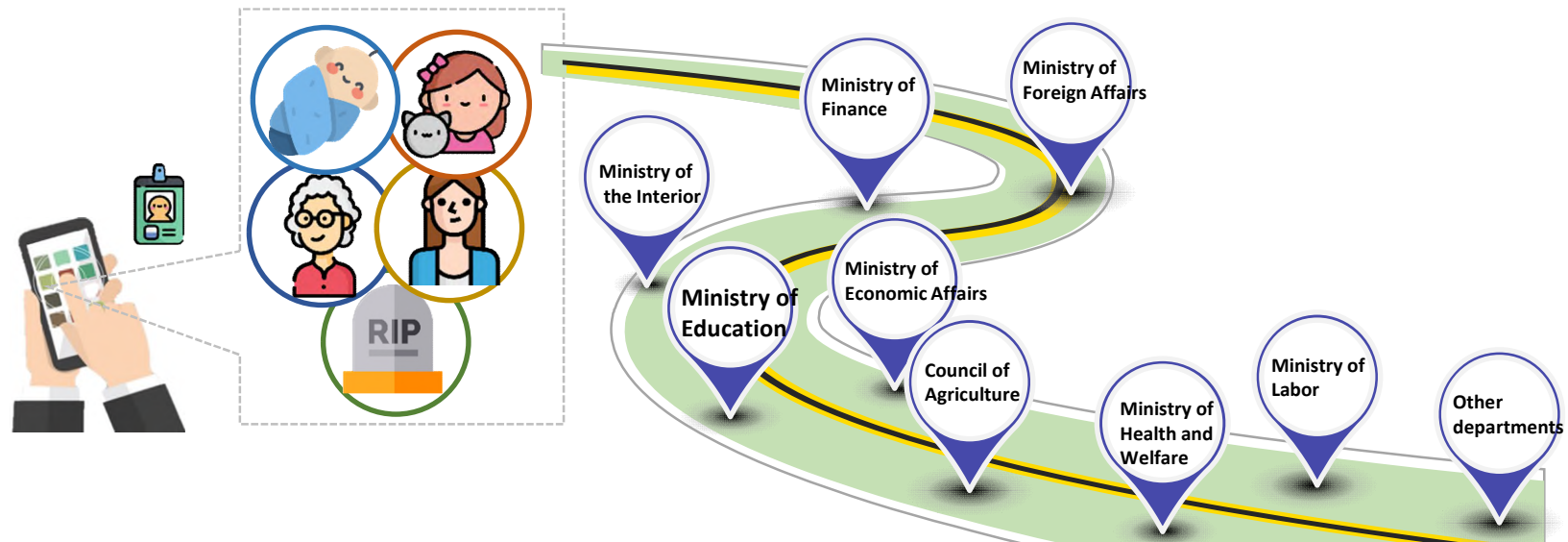
Strategy 4 Enhance Smart Services That Utilize Emerging Technologies

Enjoy the Experience

- Bring AI into public service models to improve the government service experience
- Utilize blockchain technology to create a tamper-proof data protection mechanism, and strengthen the mutual trust between people and government


Good Service

- Make good use of online identity checks and T-Road to build a cross-agency one-stop digital service
- Use data as the foundation to establish an accurate digital service for individuals




T-Road Network Data Transmission

Fundamentals Develop and Accurate and Trustworthy Digital Infrastructure



Create high-security data transmission facilities
Reliable T-Road Transmission
Smart portal service
Data security



Supplementary measures for complete digital transformation
Adapt legislation
Interdisciplinary public-private cooperation
Digital personnel training

Anticipated Benefits

Embrace the digital future

Create an open and innovative smart government

Increase digital competitiveness

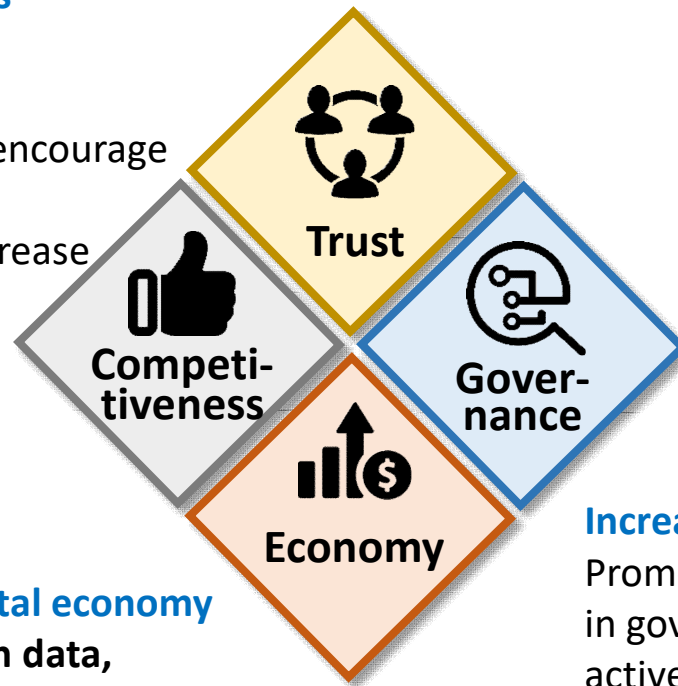
Collaborate to popularize data applications, enhance

digital governance capabilities, encourage companies to develop digital products and increase Taiwan's digital competitiveness

Build the foundations of a digital economy

Promote the transition to open data,

establish rights and obligations regarding release and reuse of data, prepare for corporate development of the digital economy



Increase Public Trust

Strengthen **efforts to promote open data and transform**

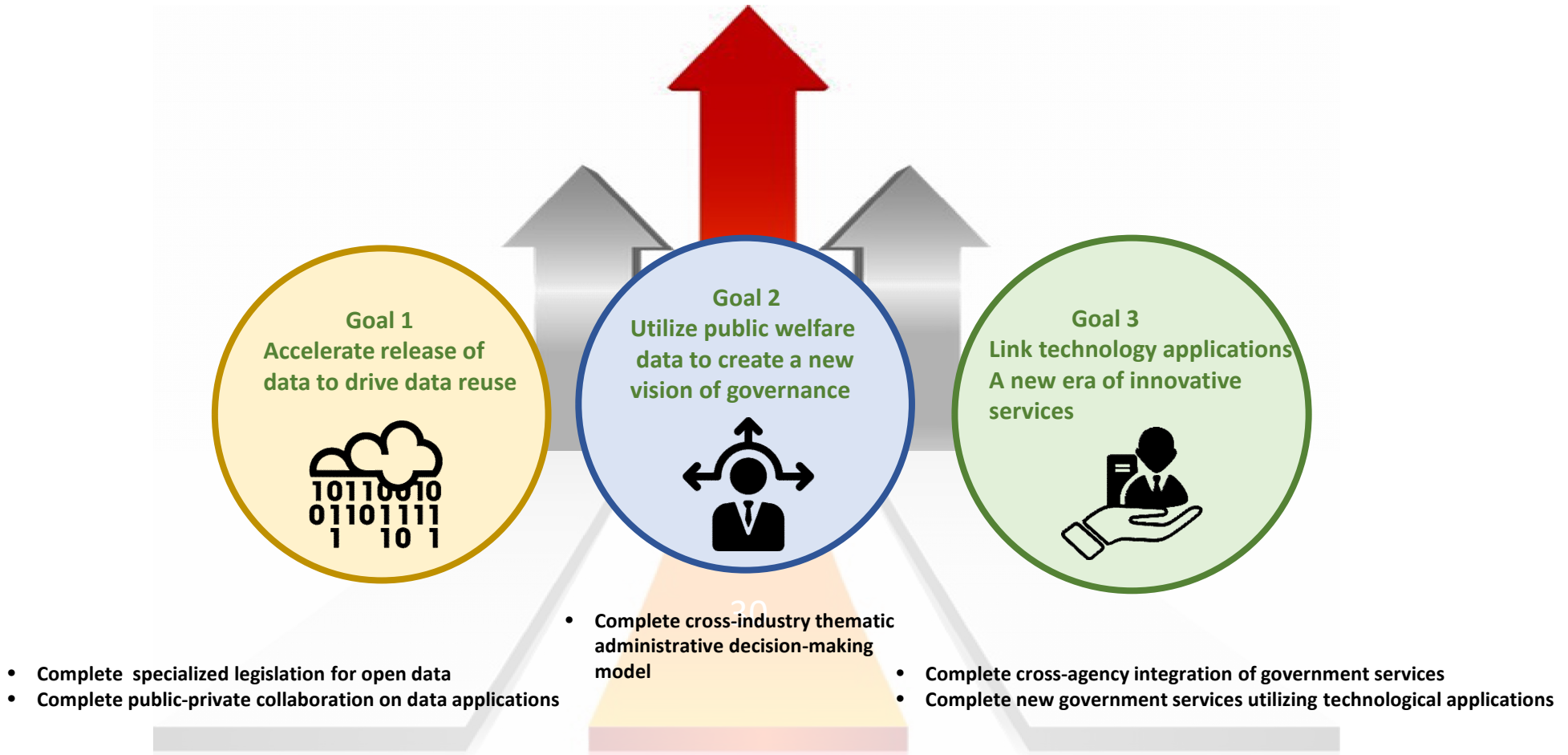
public services, make good use of technology to improve the service experience, strengthen rational dialog between people and government

Increase efficiency of digital governance

Promote evidence-based decision-making in government, actively respond to the international and social situation, take the lead in announcing executive measures, help the public reduce the impacts of environmental changes

Performance Targets

Smart services using emerging technology applications
Increase public usage to **60%*** (2025)



* the scope of the investigation is the work under strategy 4 of this Program

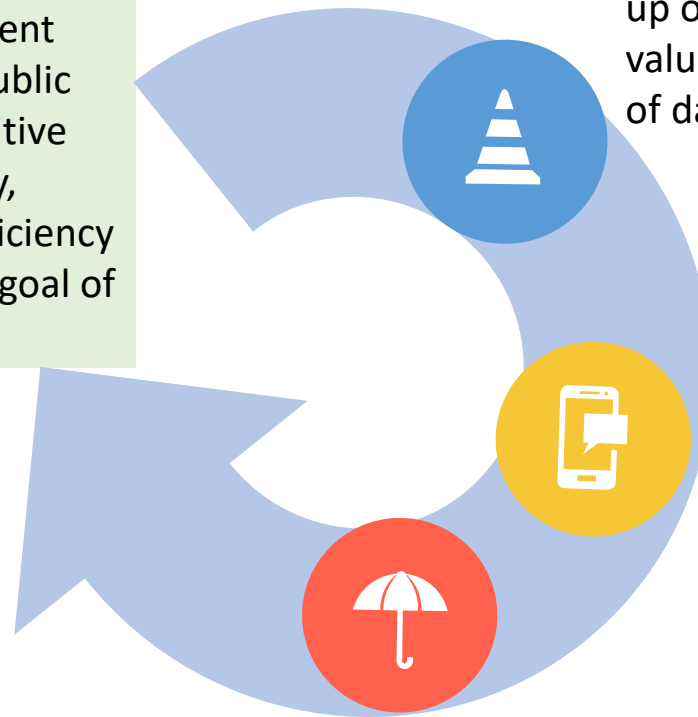
3. Key Tasks

Goal 1 Accelerate Release of Data to Drive Data Reuse

Strategy 1 Promote Legislation of Open Data

Respond to development of the digital economy and the demands of digital governance

- Enhance openness of government data and encourage reuse in public participation, increase competitive advantage in the data economy, enhance the administrative efficiency of government and realize the goal of open government.



1. Expand the Opening Up of Data

Expand the usage scope of the public sector, promote the opening up of scientific research and high-value data and increase the value of data utilization

2. Implement Public-private Collaboration

Encourage public participation and increase data sharing and circulation

3. Establish Rights and Obligations Regarding Open Access

Clearly define data management and promotion organizations, and the scope of responsibility of data managers and data users

Goal 1 Accelerate the Release of Data to Drive Data Reuse

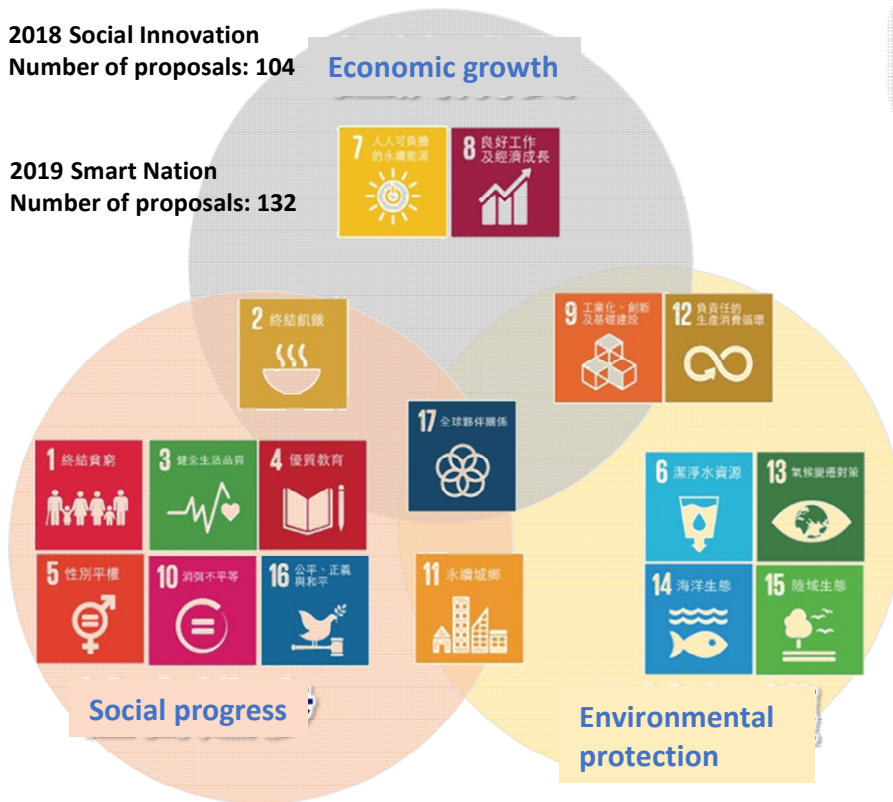
Strategy 2 Create a data-friendly environment

Public-private collaboration to solve societal issues

Presidential Hackathon

2018 Social Innovation
Number of proposals: 104

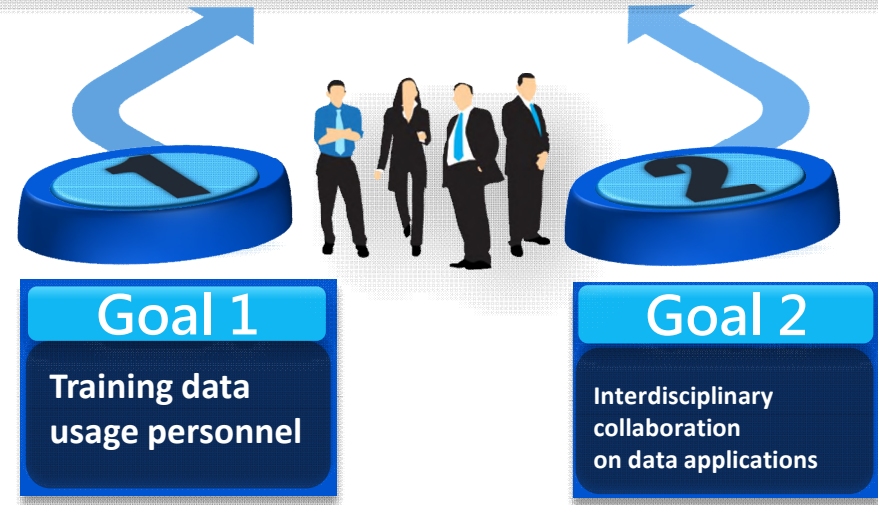
2019 Smart Nation
Number of proposals: 132



Government and civilian collaboration establish usage models

NDC government data usage guidance

Cultivate government data governance capability, optimize government service



2019 examples

- Create seamless integration of transit transfer services (Altob)
- Application of meteorological changes to pharmacies (Great Tree)
- Development of commercial district open shop site ground evaluation (Family Mart)
- Improvement of tourism transportation in the Chaotian Temple area (Yunlin County Government)

2020 Global Sustainable Development Goals

Objective 1. Active use of people's livelihood data to open up a new administrative vision

Strategy 3. Establish a requirement-oriented data analysis decision-making model

Chain data-establish an evidence based administrative decision-making model

Collect the data needed for government evidence-based decision making

Enhance geographical map support of administrative decision making

Set issue

Inventory data

Excellent decision making

3D GIS theme analysis, management application

3D special topic maps
Business 3D pipe data bank, numerical structure maps

3D GIS national base map
2D national base map upgrade to 3D

1 Set objective

- Select important policy issue (such as aging, low fertility, employment)
- Sort out analysis requirements

3 Study data

- Understand data content overall
- Remove useless data

2 Scan opportunity

- Assess data analysis possibility
- Decide issue priority order

4 Inventory and protection

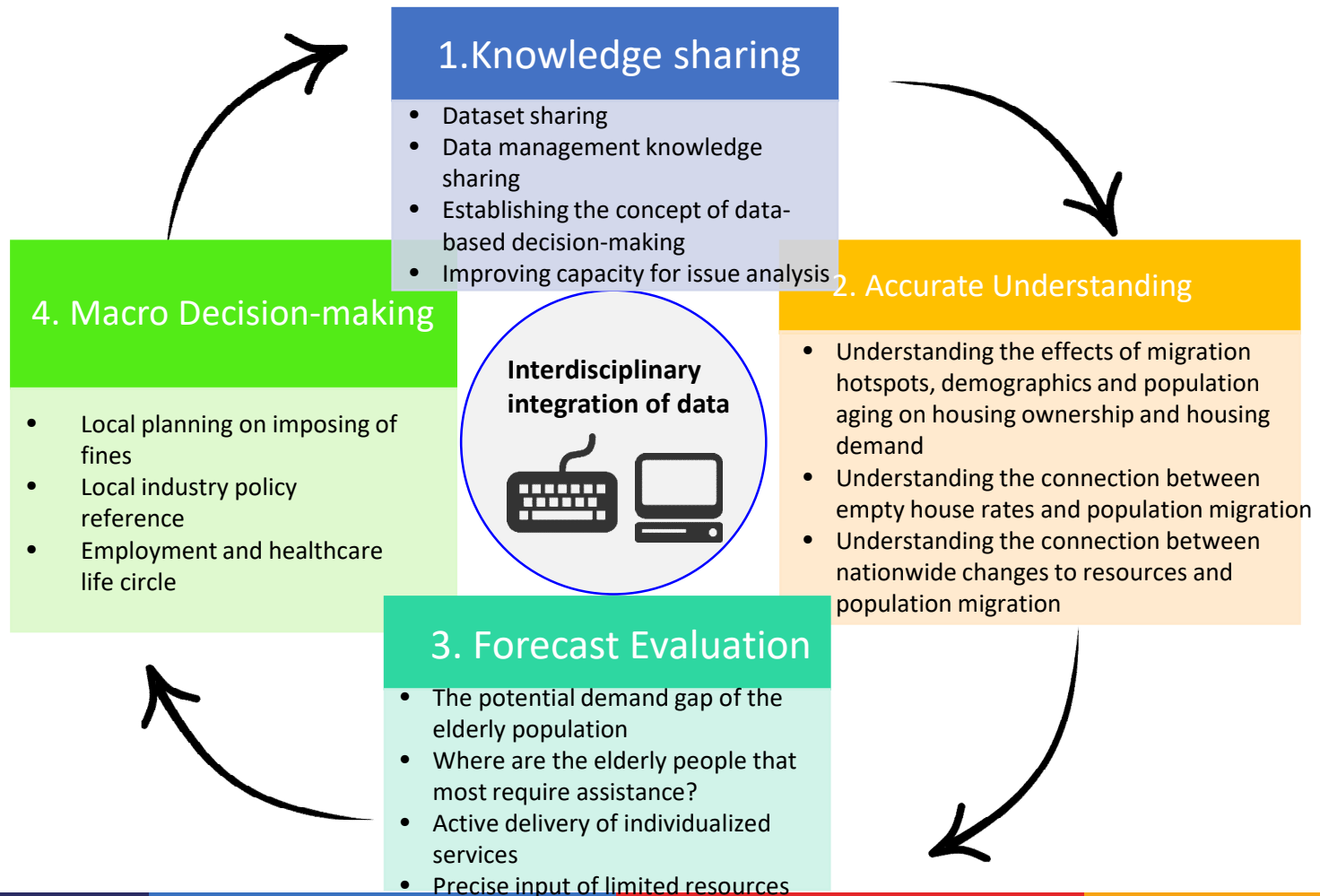
- Plan data inventory method and process
- Adopt data protection measures

Goal 2 Utilize Public Welfare Data to Create a New Vision of Governance

Strategy 3 Establish a demand-oriented data analysis decision-making model

Optimal decision-making – elderly environmental changes analysis

(Organized by the Ministry of the Interior, involving the Ministry of Health and Welfare, Ministry of Economic Affairs, Ministry of Finance, Ministry of Education and the Departments of Social Welfare of all cities and counties)

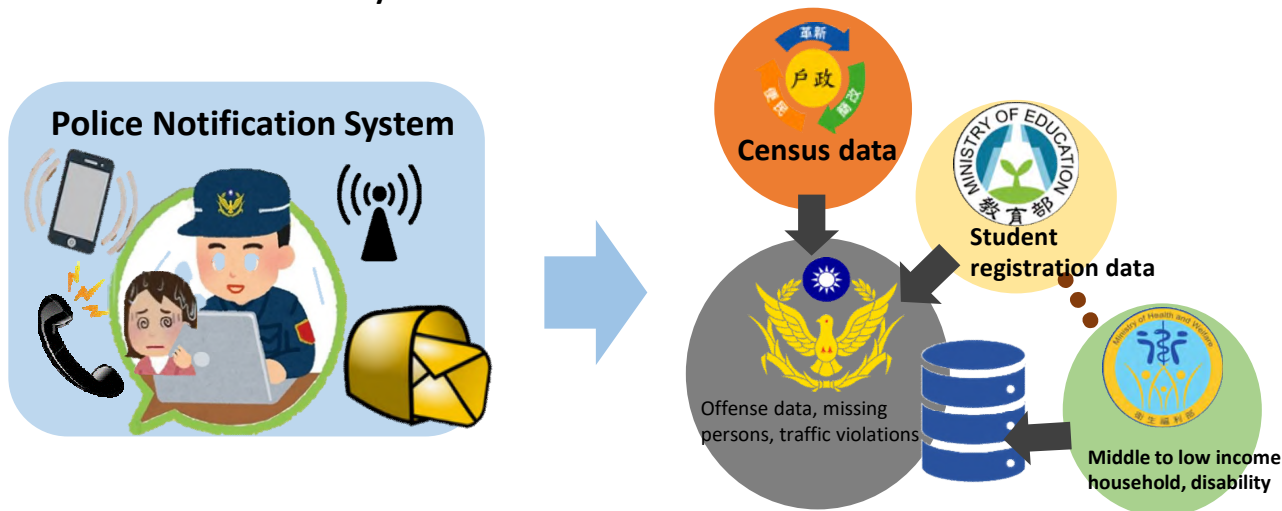
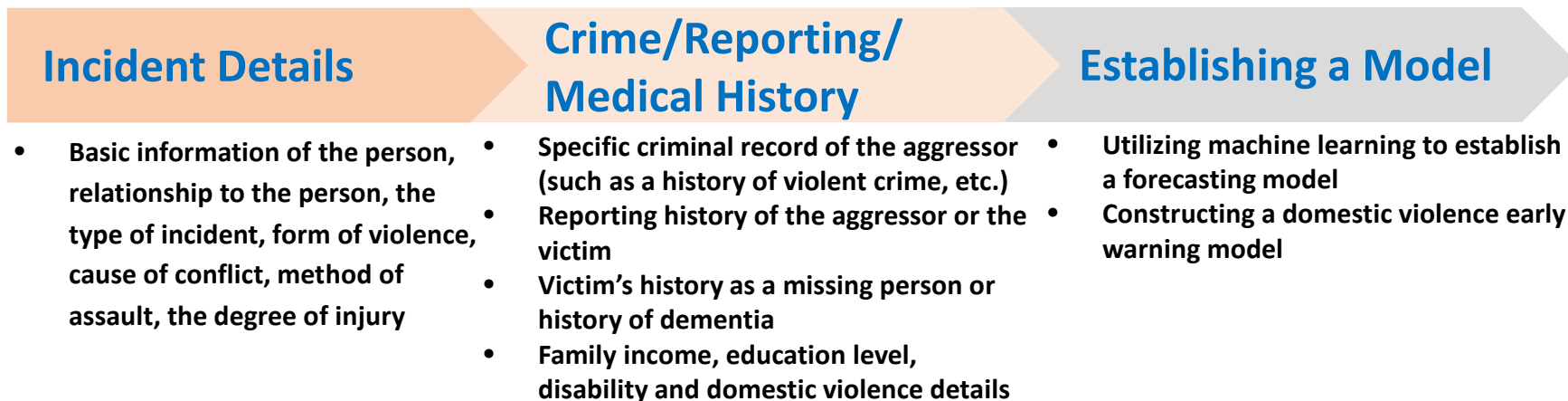


Goal 2 Utilizing Public Welfare Data to Create a New Vision of Governance

Strategy 3 Establishing a Demand-oriented Data Analysis Decision-making Model

Good decision-making – preventing domestic violence against the elderly

(Organized by the Ministry of the Interior, involving the Ministry of Health and Welfare)



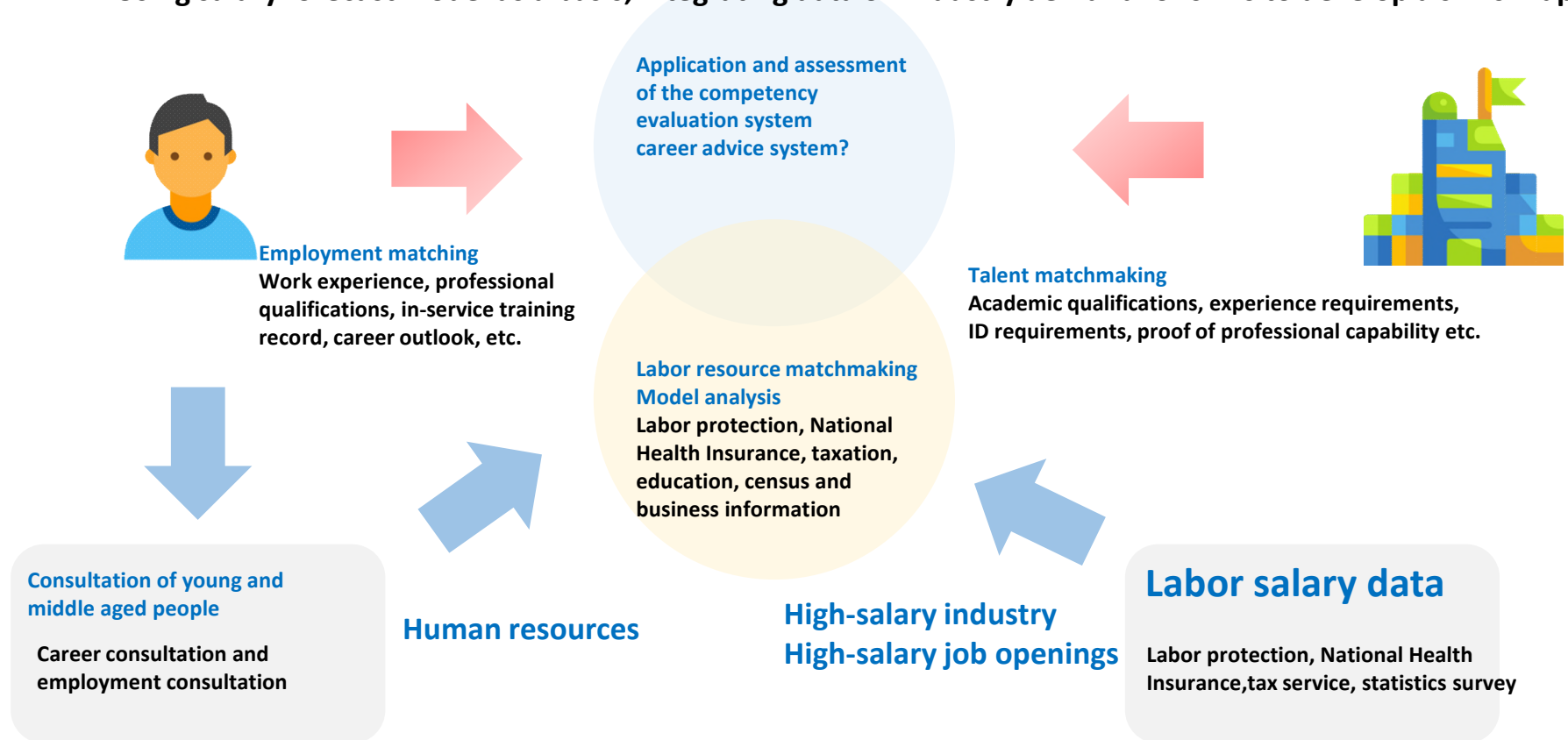
Goal 2 Utilizing Public Welfare Data to Create a New Vision of Governance

Strategy 3 Establishing a Demand-oriented Data Analysis Decision-making Model

Good Decision-making – Promoting employment amongst the young and middle-aged

(Organized by the Ministry of Labor, involving the Ministry of Education, Ministry of the Interior, Ministry of Finance and the Ministry of Health and Welfare)

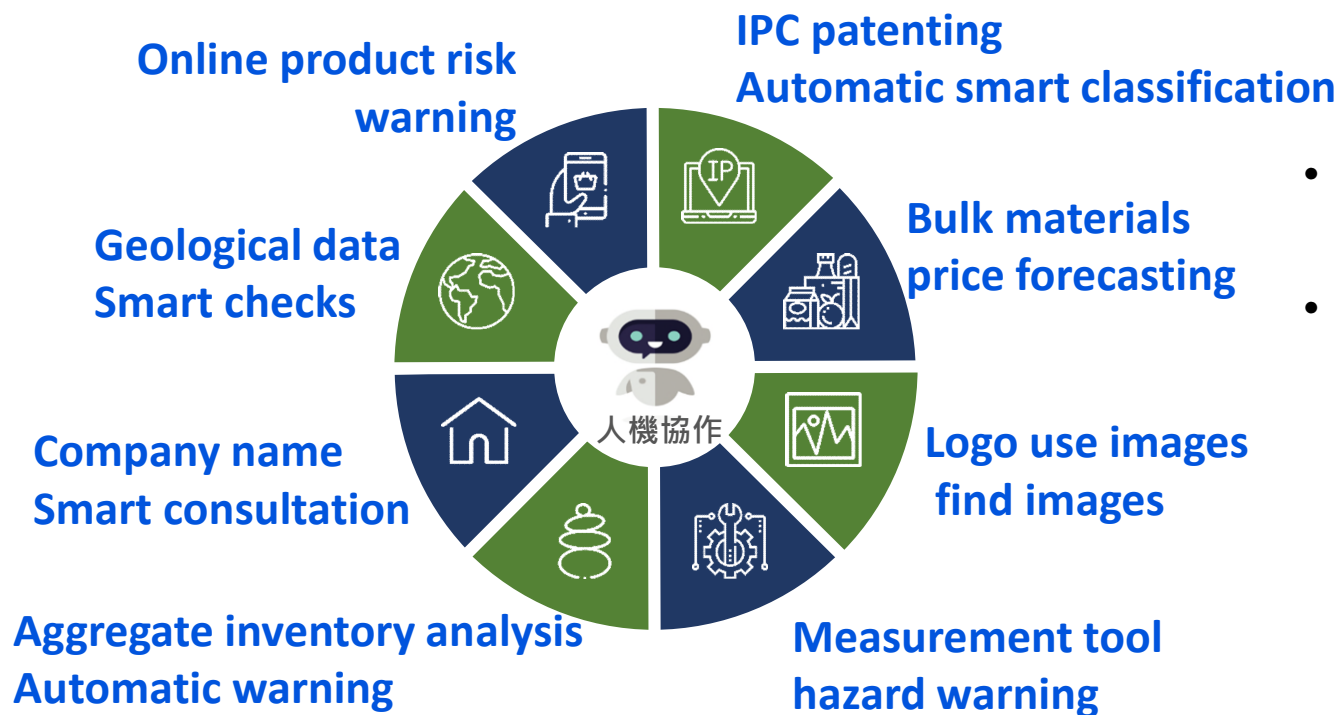
- Integrating education and labor information, observing how the young and middle-aged find employment
- Using salary forecast model as a basis, integrating data on industry demand for skills to develop a skills map



Goal 2 Utilizing Public Welfare Data to Create a New Vision for Governance

Strategy 3 Creating a Demand-oriented Data Analysis Decision-making Model

Good Decision-making – Economic decision-making assistance and smart governance
(Ministry of Economic Affairs)

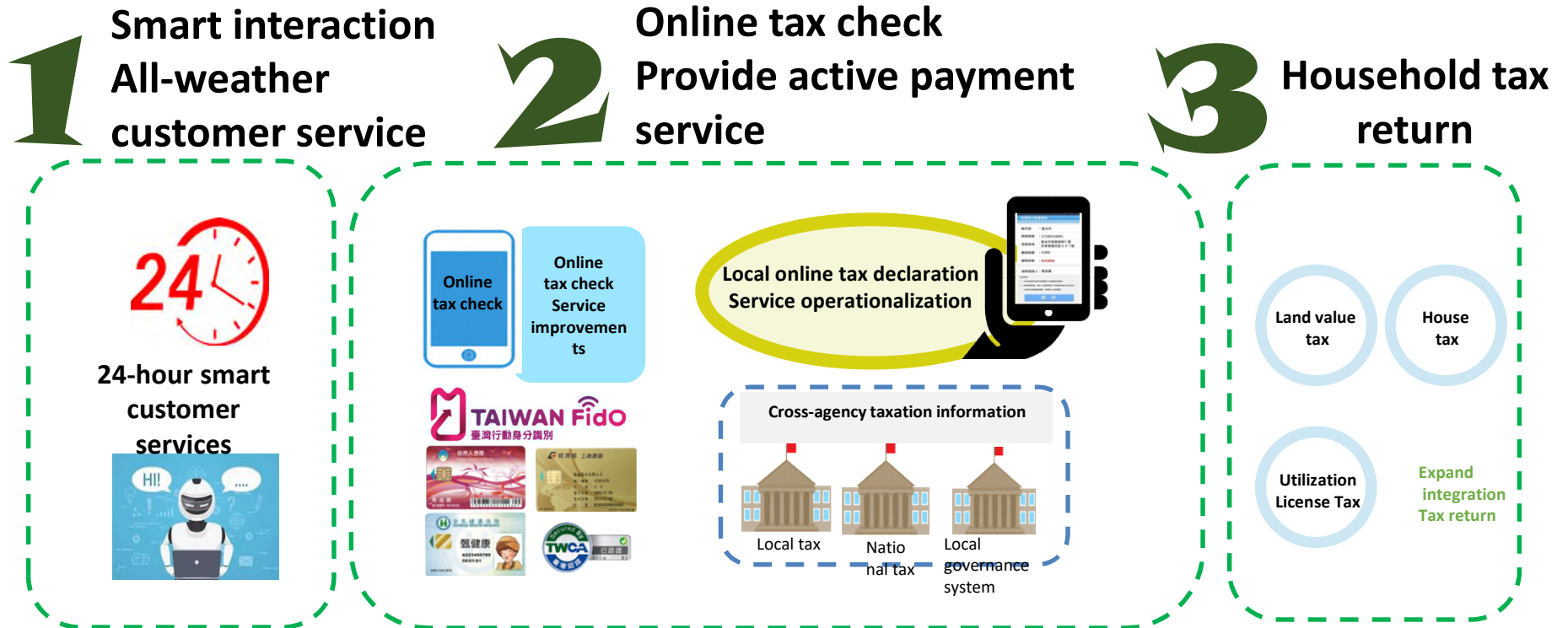


- Utilizing the transition of the economic domain to big data to support strategic decision-making
- Cooperation between man and machine to lower the burden of labor costs

Goal 3 Connecting Technology Applications for a New Age of Innovative Services

Strategy 4 Enhancing smart services that use emerging technological applications

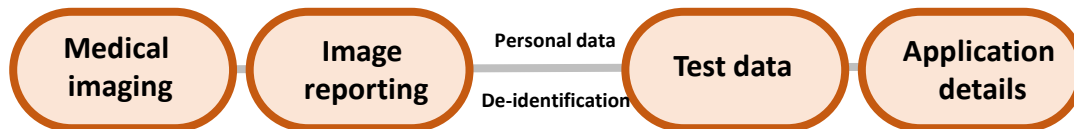
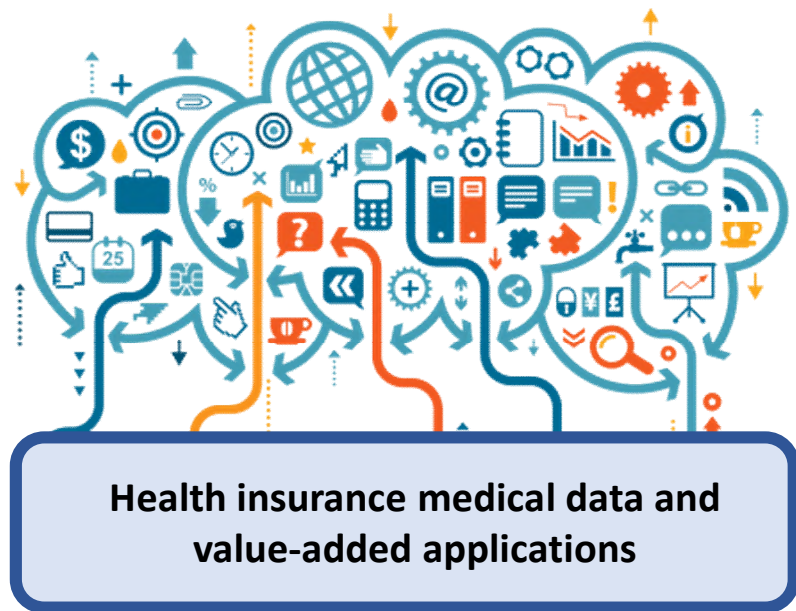
Enjoy the experience – Smart online services for local taxes (Ministry of Finance)



Goal 3 Linking smart services that use emerging technological applications

Strategy 4 Enhancing emerging technology applications for smart services

Enjoy experience – Using health insurance data with AI for value-added applications (Ministry of Health and Welfare)



Current issues

Manual interpretation of inspection reports and medical images is inefficient, and manual review of health insurance applications makes it difficult to find abnormal declarations

Introducing Artificial Intelligence Management

Using AI to analyze bulk inspection reports and medical imaging data, integrating big data from National Health Insurance medical expense reports, assisting with accuracy and efficiency of medical services and review tasks

Goal 3 Linking Technology Applications for a new Era of Innovative Services

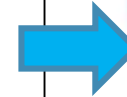
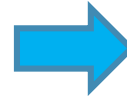
Strategy 4 Enhance the application of emerging technology in smart services

Enjoy experience – Using blockchain verification for lawyer certification
(Ministry of Justice)



When discussing litigation with a client, lawyers provide their name and copies of their certification to verify their identity.

How can you tell if they are a real lawyer.?



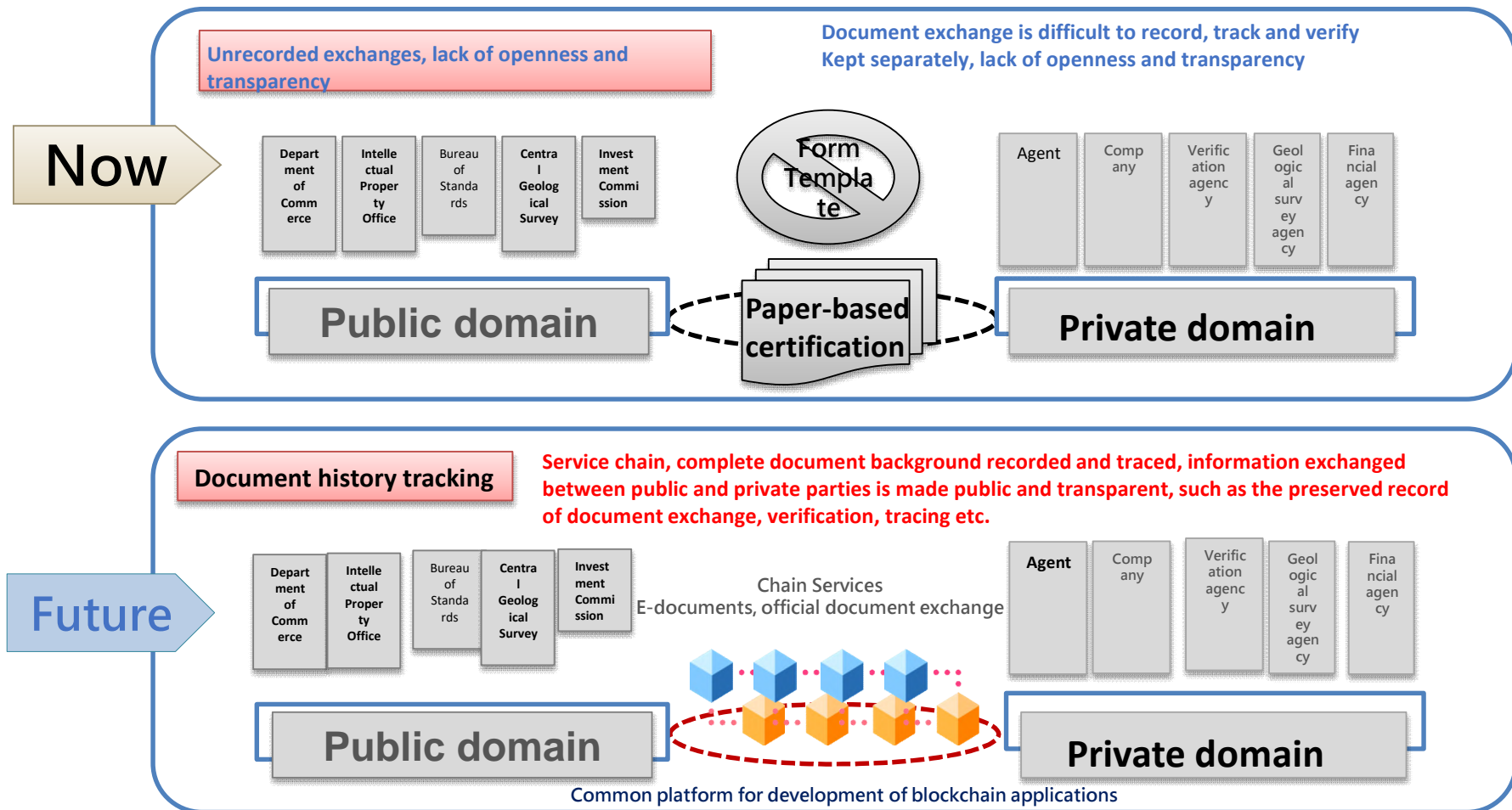
Entrusted lawsuit

**When the public entrust a lawyer,
they can inspect the authenticity of the lawyer's identity online
and trace the validity of their credentials**

Goal 3 Linking Technology Applications for a new Era of Innovative Services

Strategy 4 Enhance the application of emerging technology in smart services

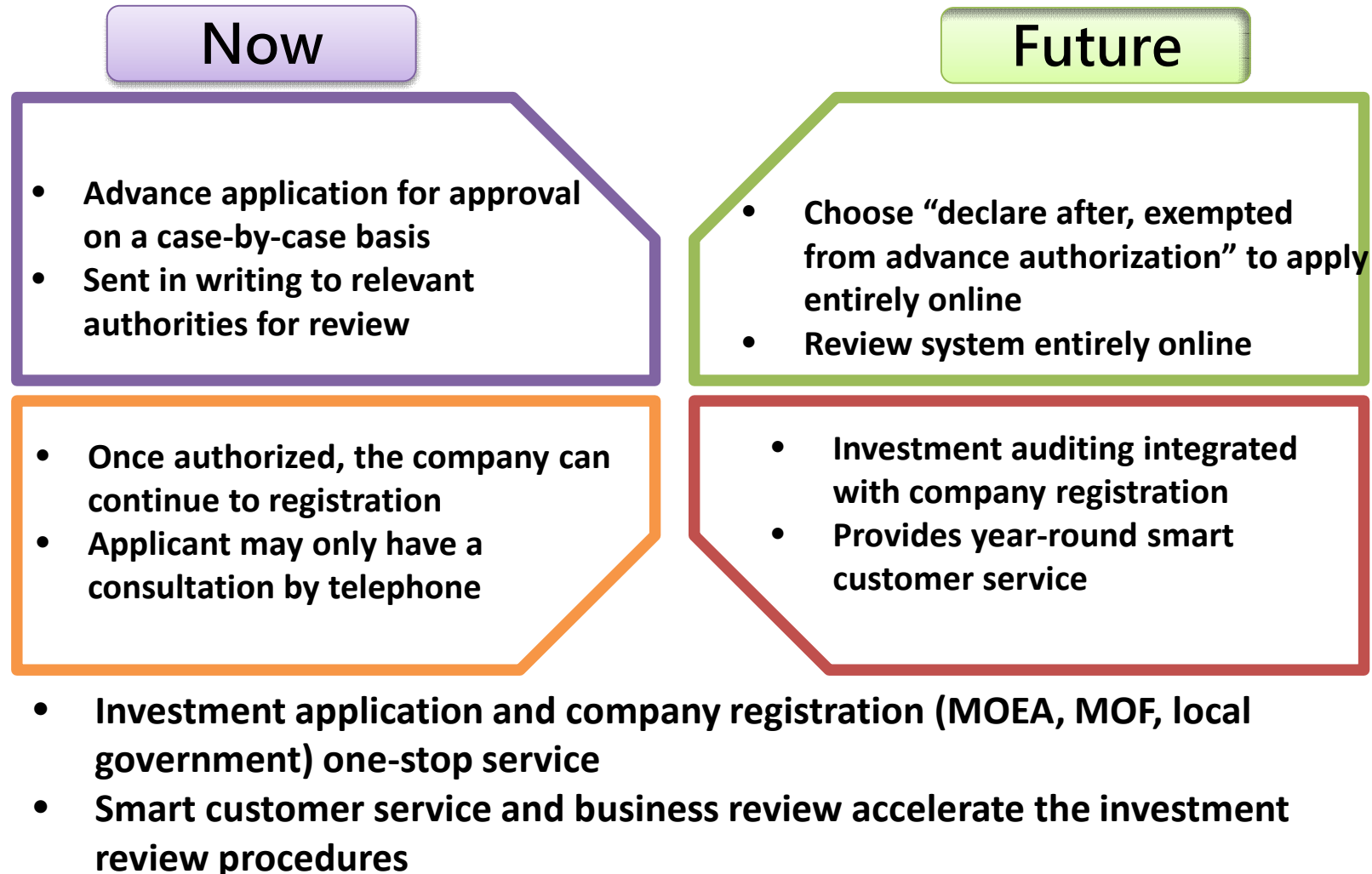
Experience – Economy digital record blockchain (Ministry of Economic Affairs)



Goal 3 Linking Technology Applications for a new Era of Innovative Services

Strategy 4 Enhance the application of emerging technology in smart services

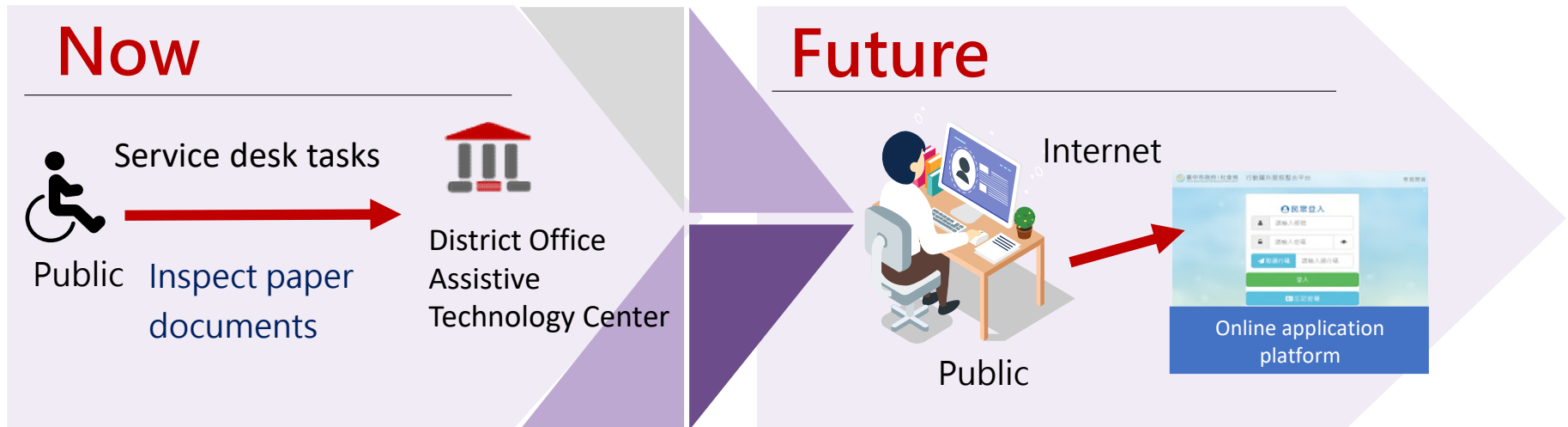
Good Service – Full online application for overseas investment in Taiwan (Ministry of Economic Affairs)



Goal 3 Linking Technology Applications for a new Era of Innovative Services

Strategy 4 Enhance the application of emerging technology in smart services

Good Service – Online application for assistive devices (Ministry of Health and Welfare)



Tasks :

- Establish online application platform for electronic assistive device subsidy
- Communicate with MOHW (disability certification), local government (low income household certification)

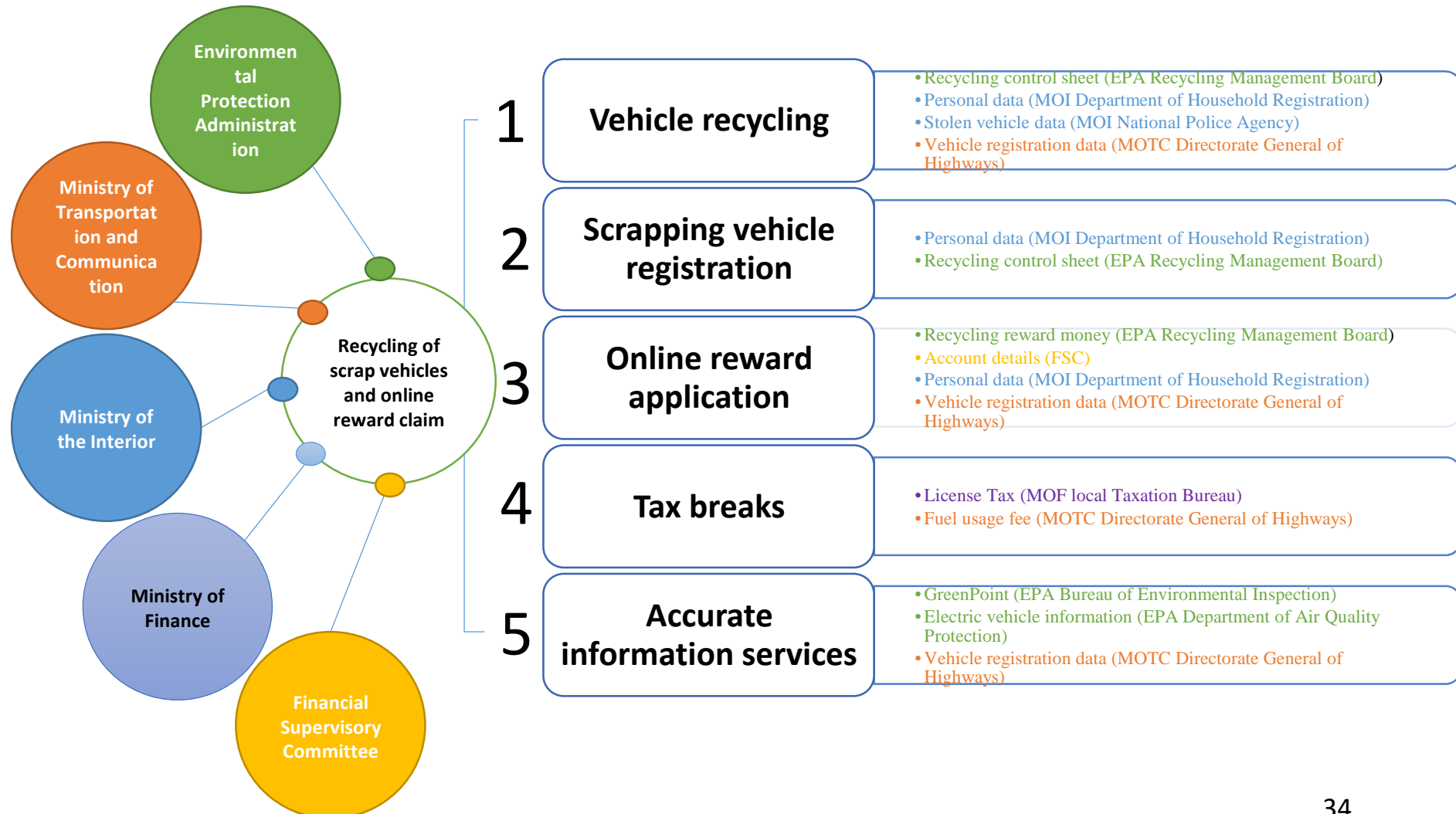
Expected benefits: simple governance, convenient for the public

1. Apply at any time, increased convenience
2. Avoid waiting, zero travel, accelerated application process
3. Easy tracking of the application progress

Goal 3 Linking Technology Applications for a new Era of Innovative Services

Strategy 4 Enhance the application of emerging technology in smart services

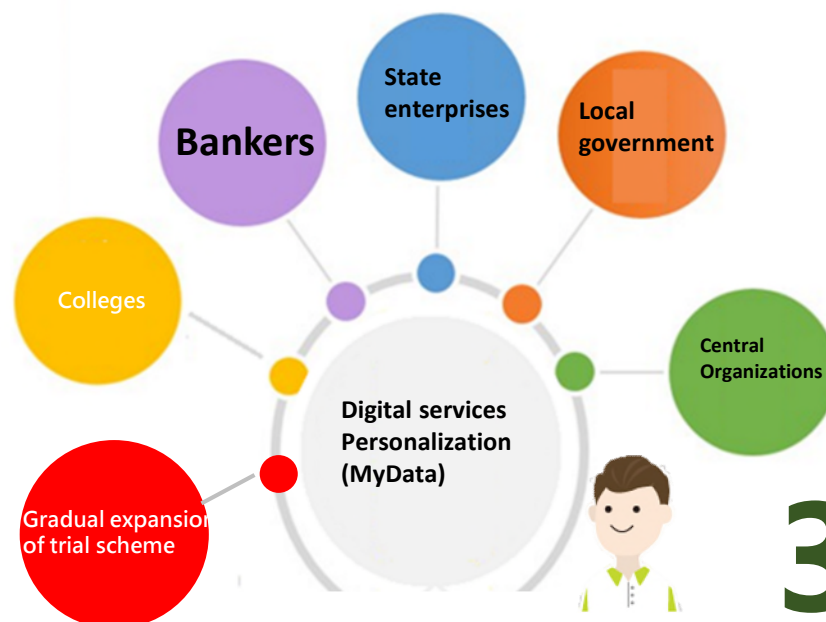
Good Service – Recycling of scrap vehicles and online reward claims (Environmental Protection Administration)



Goal 3 Linking Technology Applications for a new Era of Innovative Services

Strategy 4 Enhance the application of emerging technology in smart services

Good Service – Personalized platform for digital services (NDC)



1 Complete MyData platform functions

- Improved convenience, security and privacy of the platform
- Provides various identity check and operationalization service mechanisms
- Enables downloading of personal data, counter verification and online application services

2 Integrated lists of available data

- Expanded the release of personalized data related to people's social welfare (such as household registration, finance and taxation, labor and health insurance)
- The public can track data usage at any time

3 Established a new type of service

- Developed the government 020 service, download personal data instead of paper for on-the-spot verification
- Developed online services for various departments, prioritizing highly regulated areas such as finance, education, medicine and telecommunications

Basis 1 Create high-security data transfer facilities

In response to technological trends like 5G and IoT, we continue to upgrade data transfer infrastructure and T-Road Security, increasing public trust in government.

High Security

- Expand the data transfer bandwidth of the Government Service Network (GSN) and enhance supervision measures for data security.
- Expand T-Road data transmission to include government operations such as agriculture and education
- Utilize blockchain technology to preserve a record of T-Road transmissions

High Efficiency

- Upgrade processing power of cloud centers, and establish a software-defined network management system to handle T-Road
- Enhance the service experience of the T-Road portal and use technology to create smart applications



Fundamentals Build an Accurate and Reliable Digital Infrastructure

Basis 2 Supplementary measures for complete digital transformation

Make good use of the energy of private enterprise and the wisdom of the people, adjusting laws and regulations, transforming government services, digital personnel training etc., to implement the vision of smart government

Adjustment of Regulations

- Determine the interpretation, administrative rules and regulatory orders of smart government, and pragmatically solve the legislative barriers to its implementation
- The program overall will help every department to clarify any misgivings they may have about the implementation of smart government

Interdisciplinary Cooperation

- Gather civilian experts to guide the model of digital transformation, and help every department reproduce their services digitally
- Public-private collaboration to review grassroots public services, and work with local governments to redesign service processes

Personnel Training

- Design government digital personnel training courses in response to data science and emerging trends in technological development
- Work with the Directorate General of Personnel Administration to train workers with hidden talents for digital development, and expand capacity for digital applications

