

# Data Governance & Statistics Governance



in the Age of Data Economy

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# Covid-19 Index and performance indicators

1. Governance

Rank	Country	Covid Index	Deaths Per Million	Effective Reproduction Rate (ERR)	Epidemic Control Efficiency (ECE)	ERR Decline	Mobility Decline
1	South Korea	0.90	5.00	0.76	0.63	0.36	0.10
2	Latvia	0.78	9.34	0.95	0.29	0.63	0.24
3	Australia	0.76	3.88	1.06	0.27	0.67	0.24
4	Lithuania	0.75	17.85	0.90	0.15	0.61	0.36
5	Estonia	0.75	46.14	0.94	0.21	0.73	0.31
6	Japan	0.73	5.08	1.25	0.29	0.70	0.16
7	Slovenia	0.72	49.18	0.83	0.07	0.78	0.46
8	Slovak Republic	0.72	4.77	0.96	0.07	0.74	0.42
9	New Zealand	0.71	4.34	0.80	-0.03	0.86	0.44
10	Norway	0.71	42.17	1.13	0.18	0.72	0.30

# Covid19 Support System of Korea

1. Governance

Before After

Infected person movement Analysis

확진자 이동 동선 분석



역학조사관 직접 분석  
(24시간 내외)



시스템으로 자동 분석  
(10분 이내)

staff >> system  
24 Hour 10 Min

Personal Information Management

개인 정보 열람자 관리



수기기록 방식으로 관리 한계



전산기록으로 자동 관리

handwriting >> automatic

Interagency Cooperation

기관 간 업무 체계



기관별 개별 연락, 수기중심으로 업무과중 및 연락지연



시스템을 통한 28개 기관 실시간 정보교환

Phone >> real time data sharing

## ● **Infectious Disease Control and Prevention Act**

- Article 76-2 (Request for Provision of Information and Verification of Information)
- Request information concerning patients of infectious diseases
- Request location information of patients of an infectious disease
- Provide information concerning patients to related organizations
- Provide information concerning patients to information systems.

## ● **Medical Service Act**

## ● **Quarantine Act**

## International Governance



International Standard Industrial Classification

United Nations National Quality Assurance Frameworks Manual for Official Statistics



Quality Framework for OECD Statistical Activities



EUROPEAN STATISTICS CODE OF PRACTICE

Quality Assurance Framework of the European Statistical System

## National Governance



Statistics Korea

Korean Standard Industrial Classification  
Examinations of Quality of Statistics  
Approval for National Statistics

**Increasing costs of surveys! growing demands for more timely!  
Declining response rates! diverse data sources & new methods!**

## ● Macro level

- This new field consists of "norms, principles and rules governing various types of data"
- the governing of cross-border data flows by countries, and hence is more precisely called *international data governance*

## ● Micro level

- data management concept concerning the capability that enables an organization to ensure that high data quality exists throughout the complete lifecycle of the data, and data controls are implemented that support business objectives
- availability, usability, consistency, data integrity and data security and includes establishing processes to ensure effective data management

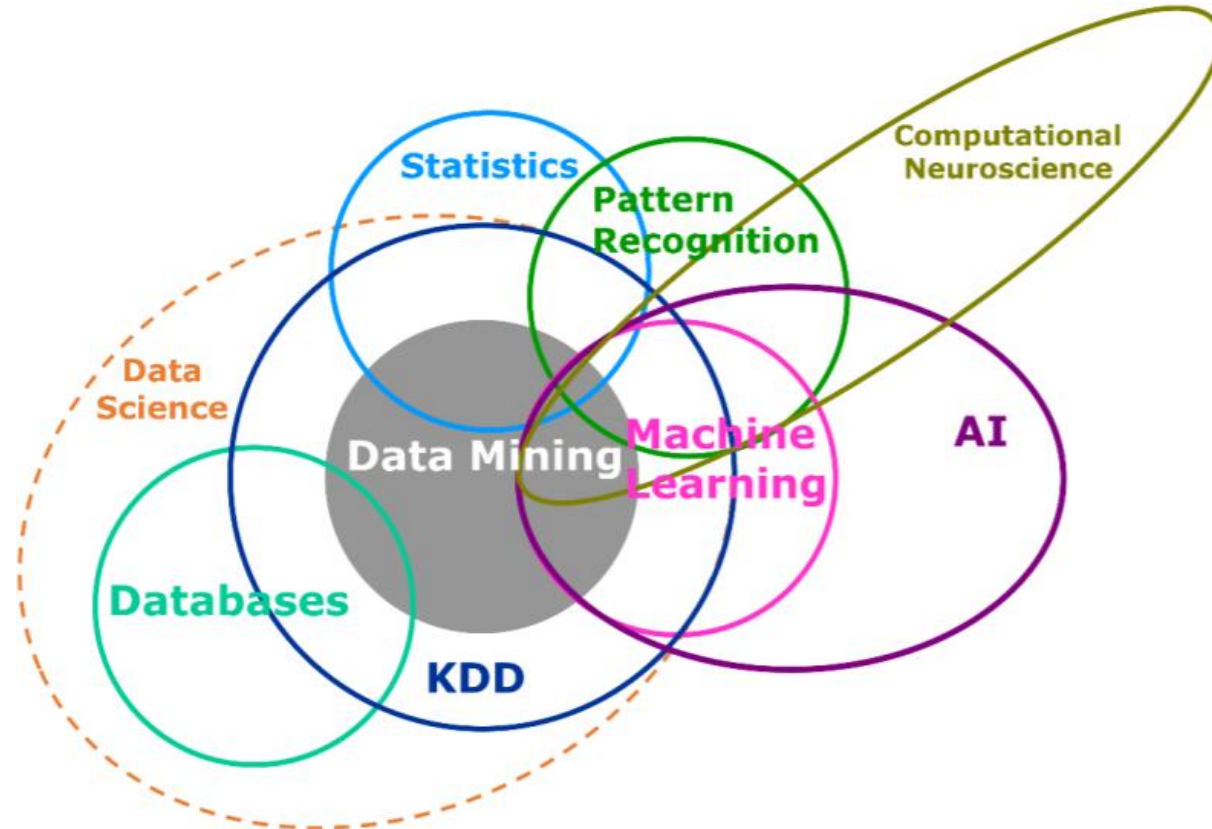
## ● Statistics

- the science of using information discovered from collecting, organizing, and studying numbers(Cambridge Dictionary)
- Statistics is the discipline that concerns the **collection**, organization, **analysis**, interpretation, and presentation of **data**(Wikipedia).

## ● Data

- factual information (such as measurements or **statistics**) used as a basis for reasoning, discussion, or calculation(Webster)
- individual facts, **statistics**, or items of information, often numeric, that are collected through observation. In a more technical sense, data are a set of values of qualitative or quantitative variables about one or more persons or objects(wikipedia).





## ● DATA STRATEGY ROADMAP FOR THE FEDERAL PUBLIC SERVICE

- REPORT TO THE CLERK OF THE PRIVY COUNCIL
- Chief Statistician, Chief Information Officer, Deputy Secretary to the Cabinet

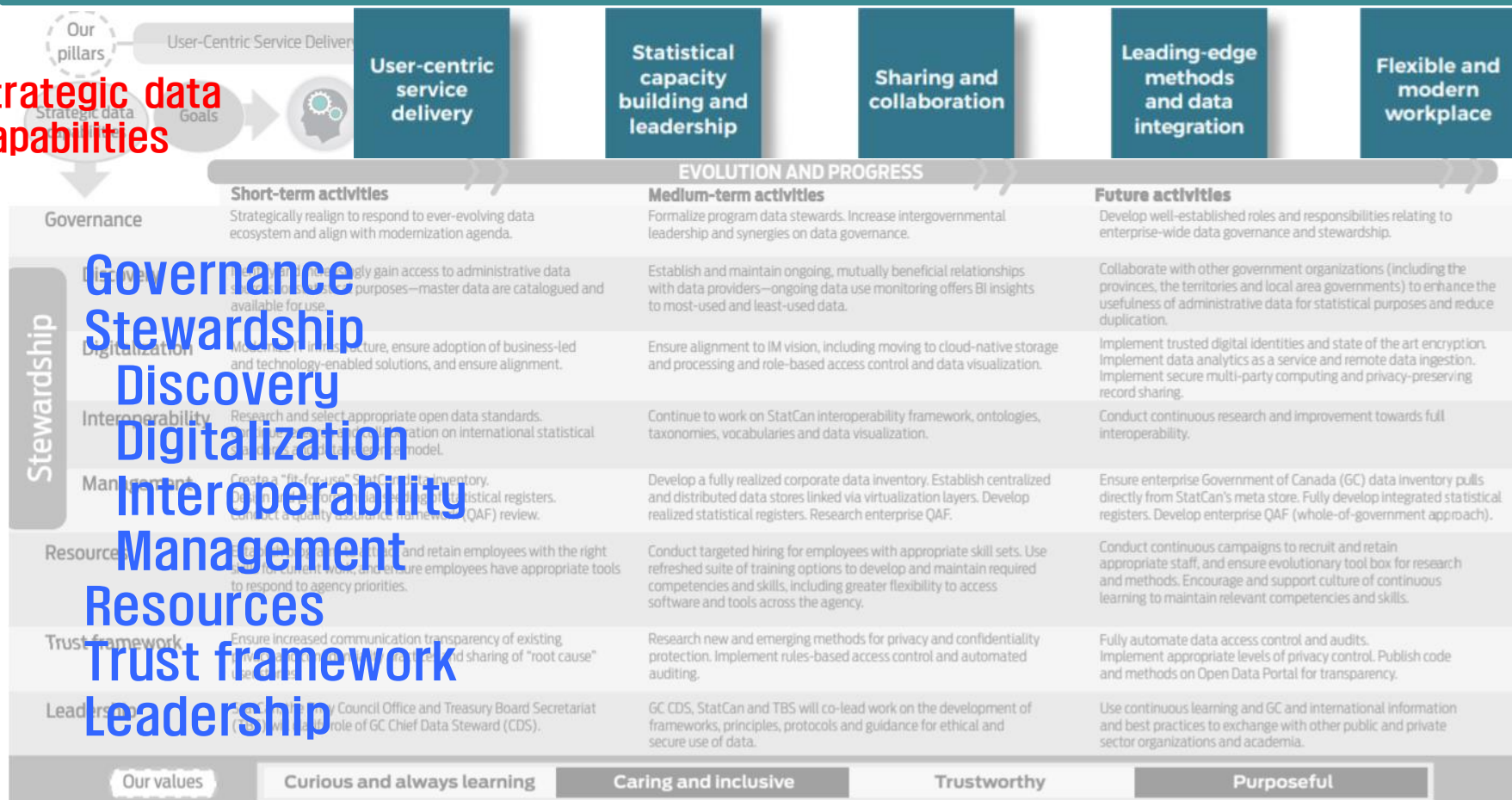
## ● STATISTICS CANADA DATA STRATEGY 2019 to 2022

- Our vision: Delivering insight through data for a better Canada
- 5 strategic data capabilities: data governance, data stewardship, data resources, data trust framework, data leadership
- Activities: Short-term, Medium-term, Future activities

# Statistics Canada Data Strategy Framework

## 2. Benchmarking

Strategic data capabilities



## ● Evidence-based policymaking Act 2018

- Federal statistics are an important source for decision-makers
- Chief Statistician: Chair of the Committee on Data for Evidence Building

## ● Federal Data Strategy 2020



### ● Office of the National Data Commissioner, 2018

- within the Department of the Prime Minister and Cabinet
- promote greater use of public sector data
- build trust with the Australian community around government's use of data

### ● National Data Advisory Council, 2019

- advises the National Data Commissioner on ethical data use, community expectations, technical best practice, and industry and international developments
- 9 members from government, industry, civil society groups, academia
- Government representatives: **Australian Statistician\***, the Information Commissioner and the Australian Chief Scientist

\* Head of Australian Bureau of Statistics

# Types of Governance framework

Type	Characteristics
Collaboration A	Chief Statistics Co-operates with CIO in Establishing National Data Strategy (Canada)
Collaboration B	Chief Statisticians: Chair of the Committee on Data for Evidence Building (USA) Australian Statistician: member of National Data Advisory Council (Australia) Four Administrative Data Research Centers (ADRCs) are set up by the Administrative Data Research Network; the UK Statistics Authority established the ADRN Board of Directors (UK)
Separation	Lack of connection between data-related and responsible organizations, statistical and responsible organizations (Korea, Netherlands, Norway)

- Which type of governance is the best for building a data economy?
- What is the most effective way to enable data sharing within the government?
- How can we design the framework for data and statistics governance at the national level (organization, personnel, etc.)?

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# Thank you for your attention

## 경청해 주셔서 감사합니다



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- Research Report: A Study on the Social Development Index and Forecasting Models for ICT and Health and Welfare Policies. National Research Council for Economics, Humanities and Social Sciences. 2021, Data Sovereignty and Data Governance in the age of Post-COVID19, KISDI Premium Report 20-10, Aug. 7, 2020. A Study on the National Statistical Approval Management Plan for Big Data Statistics, Statistics Korea. 2019.