

# S&T Information Infrastructure and Service in Korea



1962-1981

## The Beginning of S&T Information in Korea

1960 : The beginning of Science and Technology Policy

1962 : Korea Scientific & Technological Information Center was established with 5-year plan for technology promotion

1967 : S&T Promotion law was legislated and the Office of Science & Technology was established.



1982-2000

## Provision of Information Analysis Service as Information Think Tank

- 1982 : Merged into KIET(Korea Institute for Industrial Economics & Trade)  
Started Information analysis on industry and technology
- 1991 : KINITI(Korea Institute of Industry & Technology Information) was separated from KIET
- 1993 : KORIC(Korea Research & Development Center) was established under the Ministry of Science and Technology



# History of S&T Information Infrastructure



## Introduction/ Development Period (1960's-1980's)

- Information dissemination by single Organization (Foundation of KORSTIC)
- Off-line oriented services

1962 : Korea Science & Technology Information Center(KORSTIC)

1970 : The National System for Scientific and Technology Information (NASSTI)

1982 : KORSTIC and IIE were merged  
→ into Korea Institute for Industrial Economics & Trade (KIET)

## Diversified/Expanded Period (1991-2000)

- Foundation of Information Centers by each Ministries
- Decentralized development & services
- On-line & internet service

### Independent Information centers for each ministries

1991 : KINITI

1993 : KORDIC

1995 : Eng. Research Information Center (KOSEF)

1996 : KERIS

1998 : KIPi



## Stabilized/Renovated Period (2001-As of Today)

- Connection & merger between the Ministries
- e-Library
- Intelligent • High-tech Information Services

2001 : Merge of KINITI & KORDIC  
→ KISTI

2001 : yesKISTI Service

2006: Merge of KAIST NDSL

2008 : NTIS Open  
2009: KoreaScience Open  
2010: NDSL-NTIS Linking Service



2001

Provide Research Infrastructures  
For the Advancement of National STI  
Infrastructure.



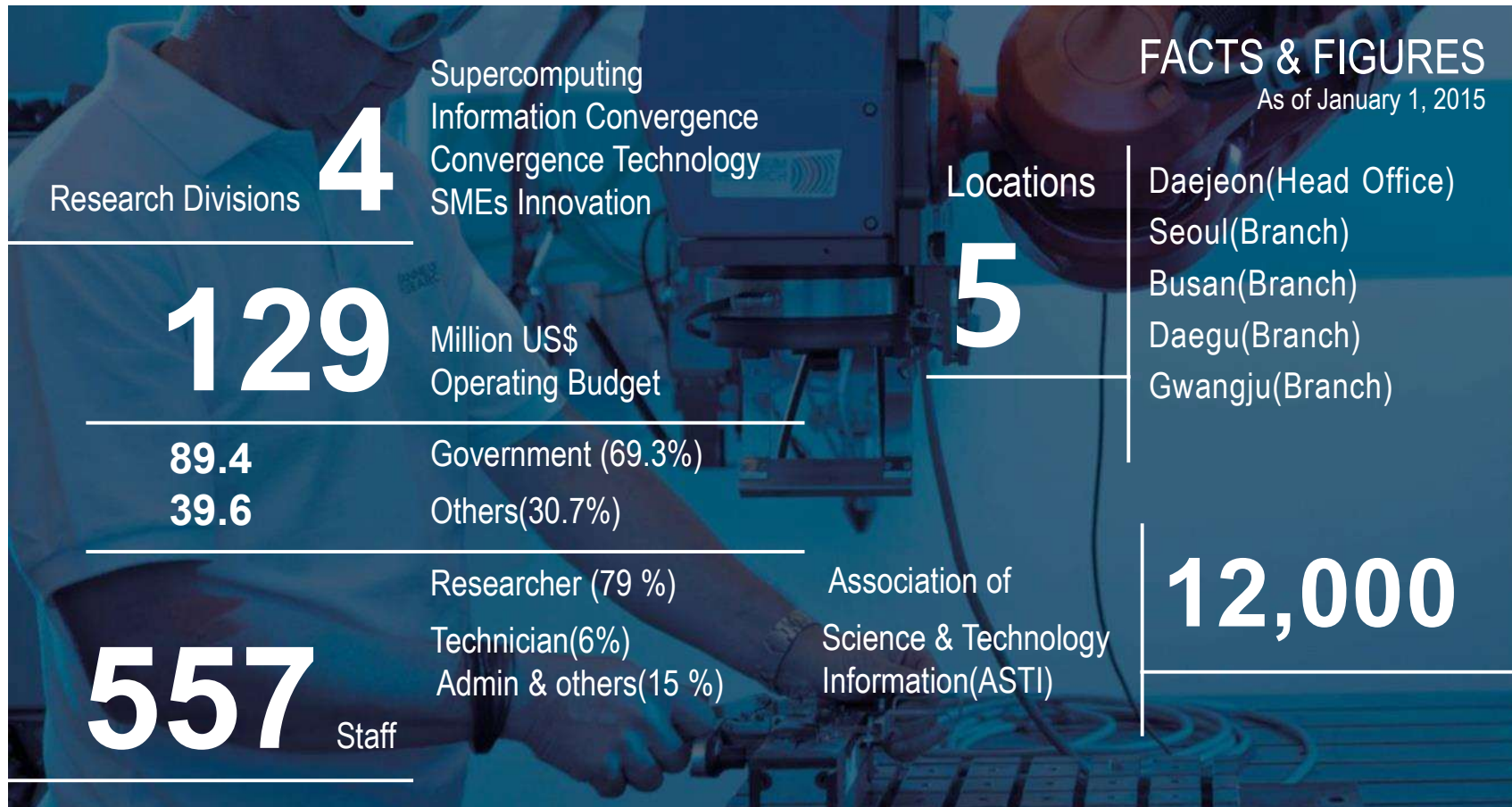
# KISTI, R&D Partner for a Better Society

As a national institute focused on S&T information and supercomputing, KISTI plays a key role in facilitating the national R&D competitiveness





# Figurs of KISTI



# Research for 2014 to 2017

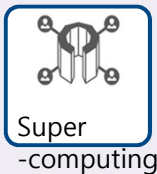
## Creating National Value for Better Society

through connecting, converging and consolidating information infrastructure

### AS-WAS

World-class research institute  
creating the value for customers

- Conduct research on 3 major areas



Super  
-computing



Information  
Dissemination



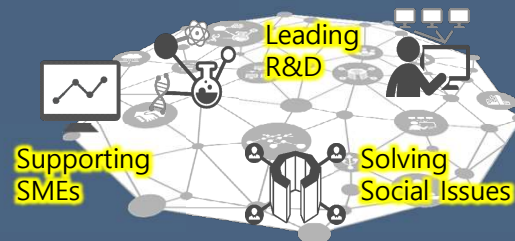
Information  
Analysis

- Establishment of world-class  
Science and Technology Infrastructure

### TO-BE

KISTI, R&D Partner for the  
better society.

- Conduct mission oriented research
- Produce excellent R&D results &  
Contribute to public welfare





# Division of Supercomputing

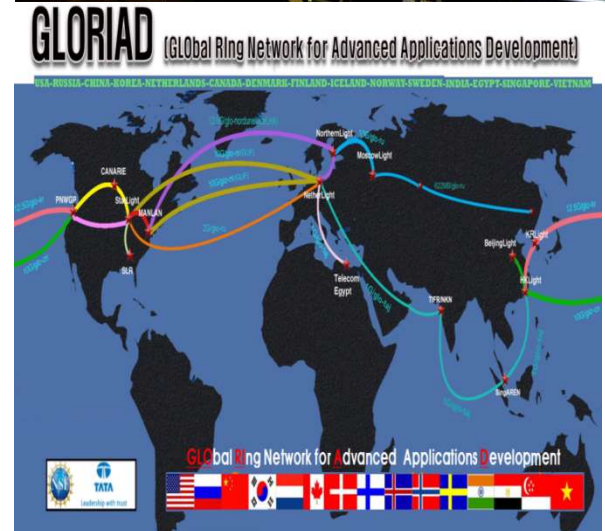
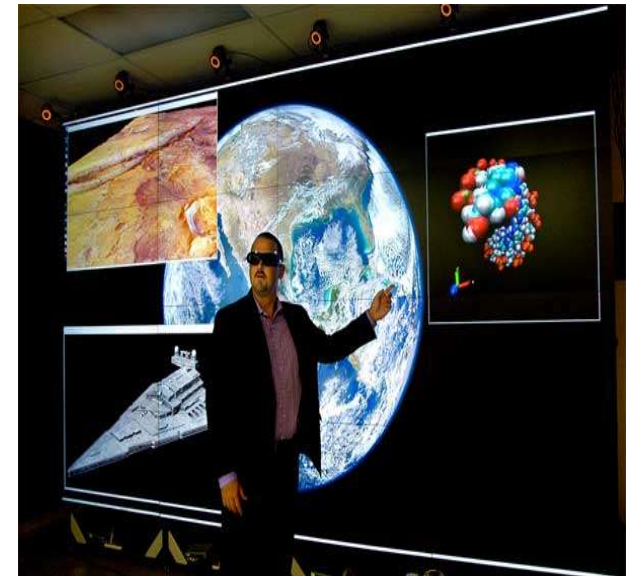


**Building the national supercomputing ecosystem and  
Enabling advances in S&T to tackle the toughest challenges in Korea.**

# Division of Supercomputing

To maximize national R&D performance by providing world-class supercomputing resources and high-performance research network

- Building and operating advanced supercomputing infrastructure
  - ✓ 360 Tflops computing power for data processing
  - ✓ large-scale cluster data storage of CERN, KEK
- Establishment of High-Performance Research Network
  - ✓ 500Gbps bandwidth for local R&D support
  - ✓ GLORIAD for global R&D collaboration
- Development of advanced supercomputing technologies and services
  - ✓ Education-research Integration through Simulation On the Net
  - ✓ distributed computing technology development
  - ✓ massive application data visualization technology



# Division of Information Convergence



**Building integrated S&T information portal and developing advanced information technology to provide better service for industry, academia and research organizations.**

# Division of Information Convergence

To build and provide high value-added S&T information by obtaining, building and processing the information required for national research and development

- Building National Digital Science Library(NDSL)
  - ✓ 100 million records of S&T contents in various research areas
  - ✓ Korean Electronic journal Site License Initiative(KESLI)
  - ✓ Korean Scientists and Engineers Network(KOSEN)
- Operating National S&T Information Service(NTIS)
  - ✓ National R&D Project information of 16 Ministries & Offices
  - ✓ Research reports, participating researchers, facilities, research outcomes, statistics, etc.
- ✓ Developing technology intelligence system
  - ✓ Technology Opportunity Discovery (TOD)
  - ✓ COMPetitive Analysis Service(COMPAS)
  - ✓ Future Technology Information Portal(MiriAn)





# NDSL Major Services

Contents Integrated Search

Full Text Search

Smart Services

Analytical Service

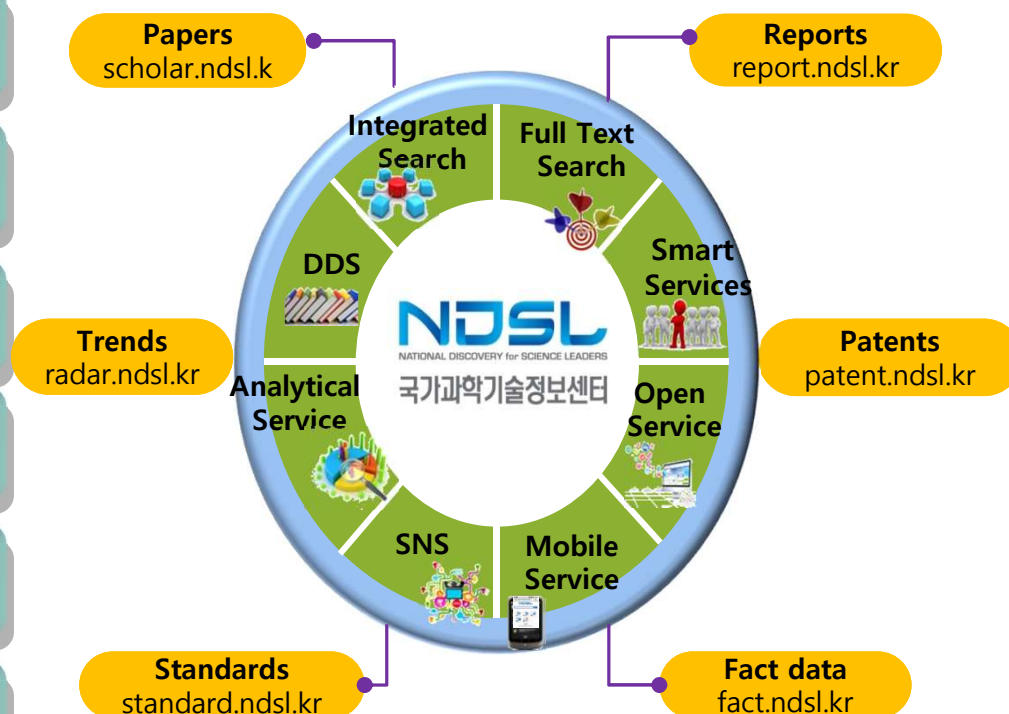
Mobile Service

Social Network Service

Document Delivery Service

NDSL Open Service

**Major Contents**  
**102,450,275 records**



# Division of Convergence Technology Research

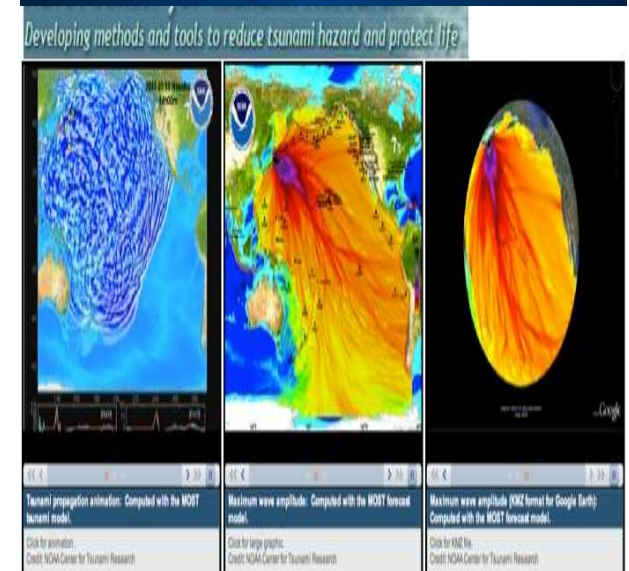
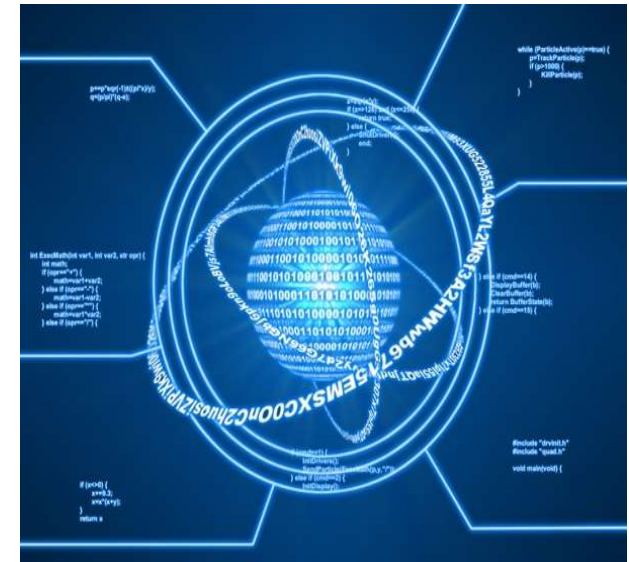


**Building data intensive digital science platform and system to support the resolution of national and social pending issues and to share scientific data and core technologies for industry, academia and research institutes.**

# Division of Convergence Technology Research

To accelerate new scientific discoveries and data-based convergence research by building a nation-wide sharing system of scientific data

- Developing HPC and data-intensive technologies dedicated to addressing social issues
  - ✓ HPC-based dementia research environment
  - ✓ Simulation-based disease prediction technology
- Developing real-time disaster management system
  - ✓ Collection and analysis of environmental data of the planet in real time
  - ✓ Decision making support system for coping with disasters and hazards
- Building scientific data sharing system and data-intensive research environment
  - ✓ Governance system for scientific data management
  - ✓ Large-scale scientific data analysis



# Division of SMEs Innovation



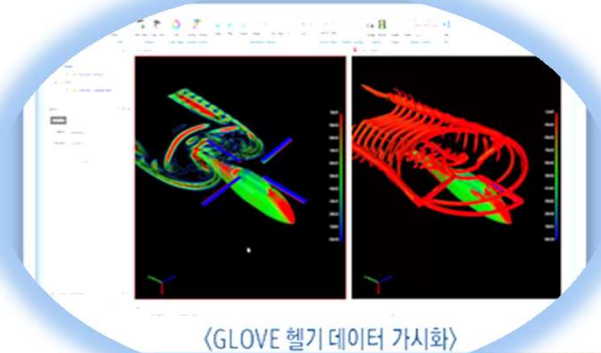
**Providing wide range of information services including information analysis, business opportunities, commercialization and supercomputer-based M&S, to promote the growth and development of SMEs**



# Division of SMEs Innovation

To support future growth and sustainable development of SMEs by providing sophisticated and customized information supporting program

- Providing comprehensive supporting service program for SMEs in cooperation with government
  - ✓ Discovery of Emerging Technologies
  - ✓ R&D planning and customized knowledge mentoring
  - ✓ Global technology commercialization
- Supercomputing M&S service for SMEs
- Building SME eco-system with ASTI(Association of Science & Technology Information)
  - ✓ Largest SME community with 12,000 industry-academia experts
  - ✓ Intensive support for 270 KISTI family companies
  - ✓ Twenty specialized knowledge communities across the nation





# Thank You!

**KISTI, R&D Partner for a Happier Society**