KOREA RESEARCH DATA COMMONS

Research Data Sharing Center
Sa-kwang Song
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◆ **AccessON**(accesson.kr)

    ◆ From authoring to disseminating Open Access articles

    ◆ Provides discovery, self archiving, monitoring and co-authoring services
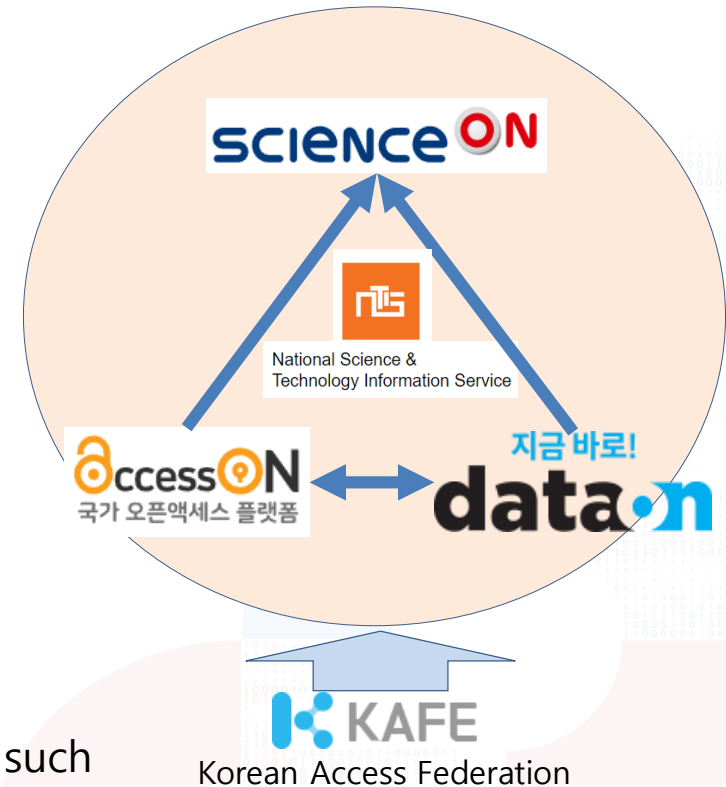
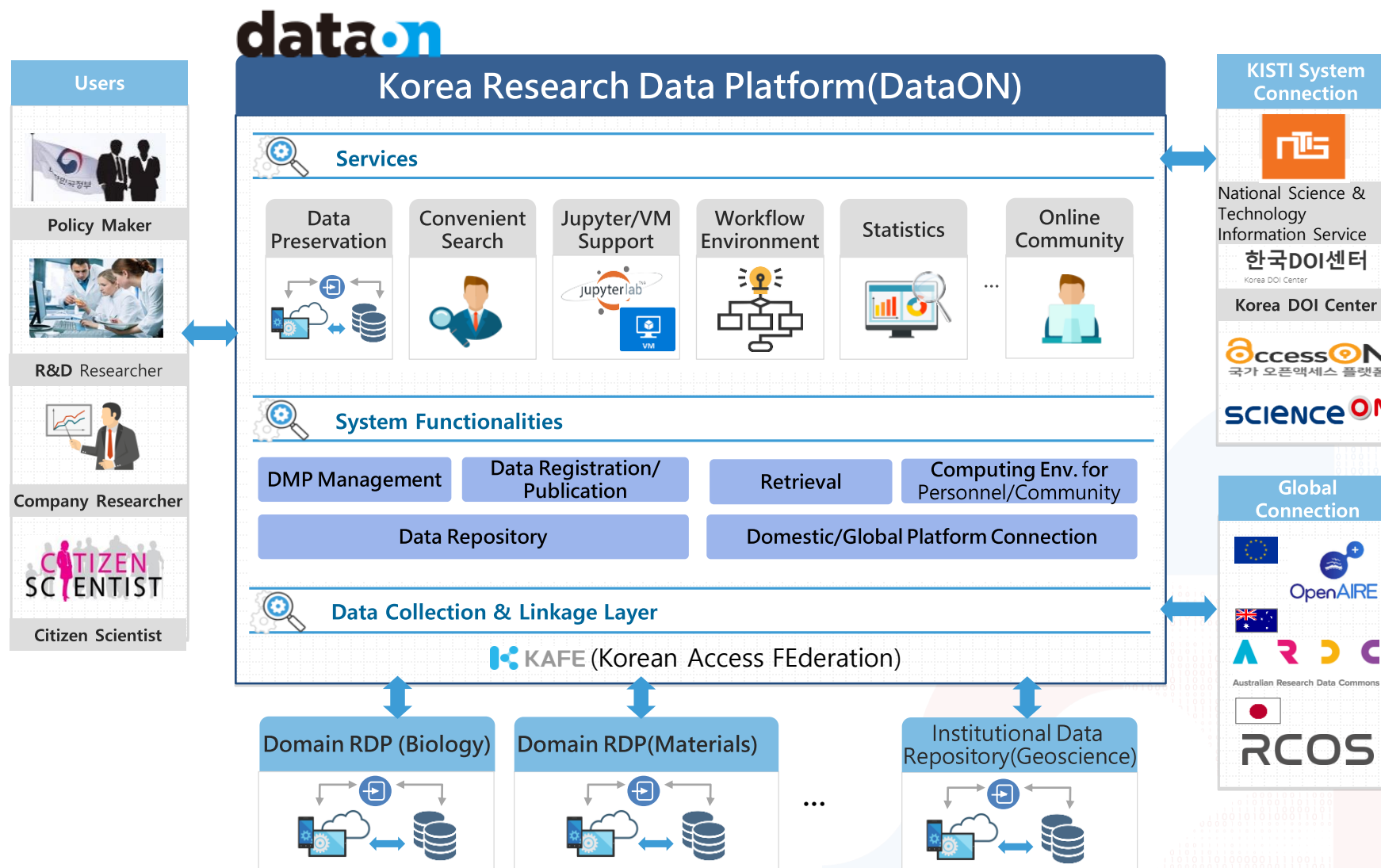   ◆ Total # of articles: 34 M

◆ **DataON**(dataon.kr)

    ◆ National Research Data Platform

    ◆ Provides discovery, registration, interconnection and analysis cloud services

    ◆ 1.2M metadata (950GB), 5.6M Figure/Table

◆ **ScienceON**(scienceon.kisti.re.kr)

    ◆ Portal of Open Science systems in KISTI

    ◆ Integrated search based on AccessON and DataON

    ◆ Interconnected with various research services in KISTI, such as NTIS, KMAPS, COMPAS, KOSEN, etc.

    ◆ Towards Open Collaboration System for Korean researchers

※ NTIS provides information about Researcher, Projects, and R&D outcomes in Korea

science ON

National Science & Technology Information Service

ccessON
국가 오픈액세스 플랫폼

지금 바로!
data on

KAFE

Korean Access Federation

S&T Infrastructure
Changing the World with Data
KISTI

Korea Research Data Platform: DataON

Korea Research Data Platform(DataON)

Services
- Data Preservation
- Convenient Search
- Jupyter/VM Support
- Workflow Environment
- Statistics
- Online Community
...

System Functionalities
- DMP Management
- Data Registration/Publication
- Retrieval
- Computing Env. for Personnel/Community
- Data Repository
- Domestic/Global Platform Connection

Data Collection & Linkage Layer

KAFE (Korean Access FEderation)

Users
- Policy Maker
- R&D Researcher
- Company Researcher
- Citizen Scientist

KISTI System Connection
- National Science & Technology Information Service
- 한국DOI센터 Korea DOI Center
- Korea DOI Center
- accessON 국가 오픈액세스 플랫폼
- science ON

Global Connection
- OpenAIRE
- ARDC Australian Research Data Commons
- RCOS

- Domain RDP (Biology)
- Domain RDP(Materials)
- ...
- Institutional Data Repository(Geoscience)

**S&T Infrastructure
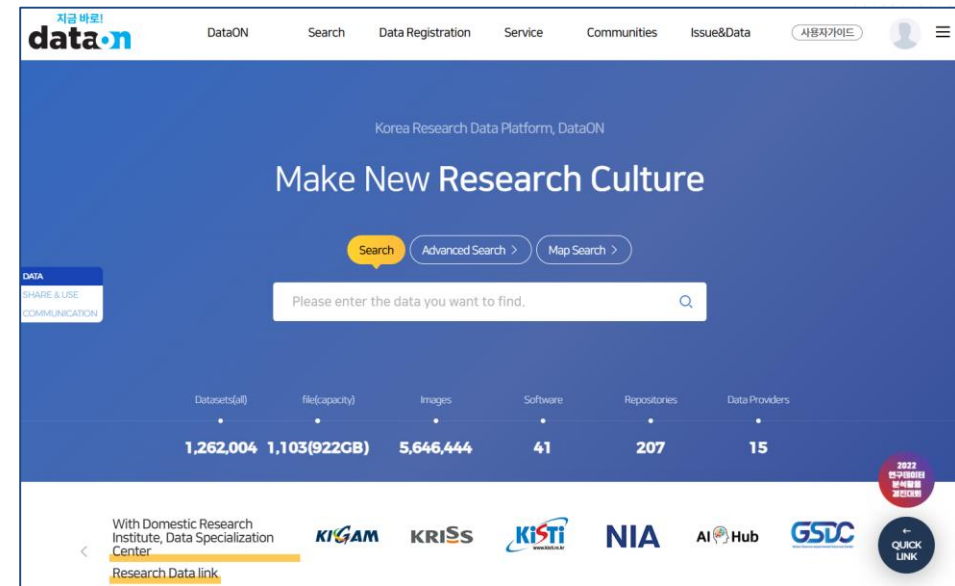Changing the World with Data
KISTI**

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◆ DataON services

- ◆ Registration, preservation, and discovery services for Research Data
- ◆ Repository hosting service
- ◆ Interconnection with other research data platform
- ◆ Virtual research environment supporting VM, JupyterLab, and workflow environment.
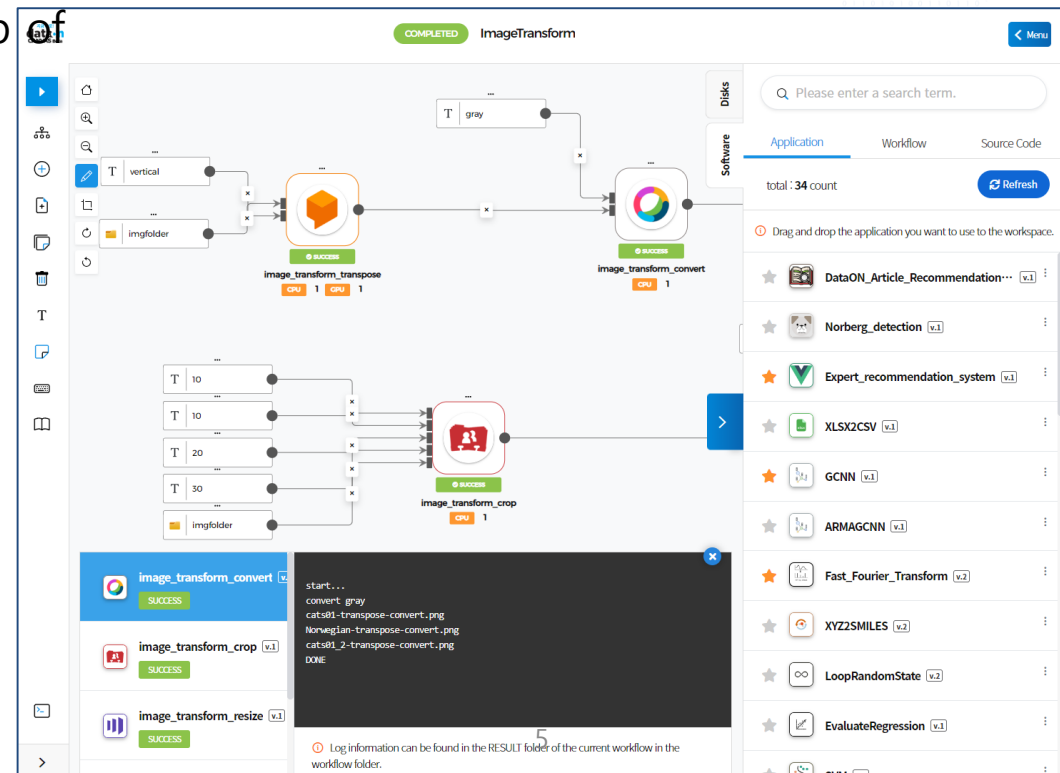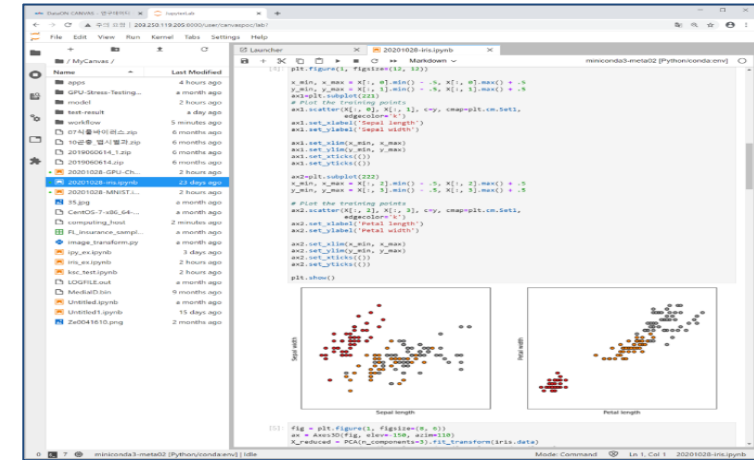
◆ DataON Statistics

- ◆ # of metadata: 963K (OpenAIRE), 100K (ARDC), 65K (NII)
- ◆ # of (Meta)data: 32K (Korea) (File size: 925GB)
- ◆ # of Figure/Tables in R&D reports: 5.6M
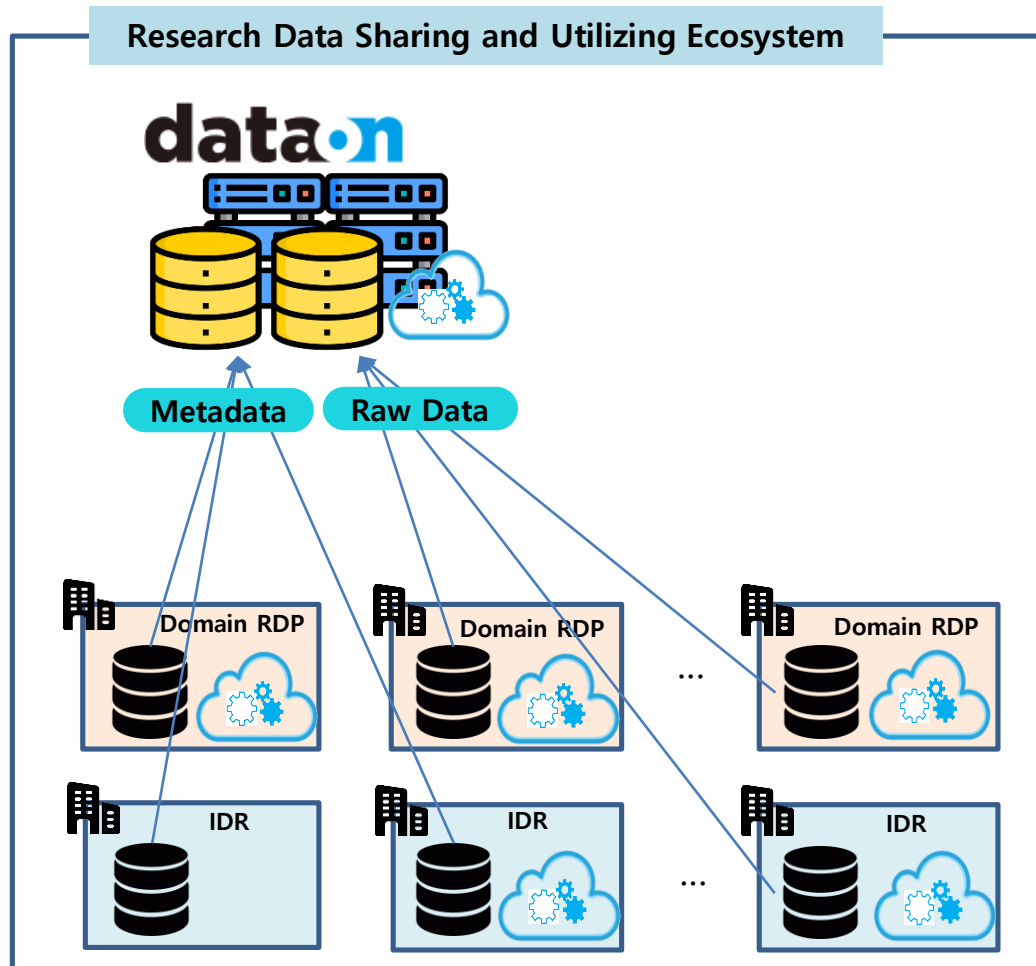- ◆ 17 interconnected repositories in Korea

S&T Infrastructure
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DataON Virtual Research Environment

◆ **DataON CANVAS(VRE)** – beta version

- ◆ **JupyterLab** to configure own analysis environments and perform analysis work
- ◆ **GUI-based workflow** modeling and analysis
- ◆ High-speed and large-capacity analysis utilizing **high-performance cloud infrastructure (CPU/GPU)**
- ◆ Provision of **preprocessing tools(apps)** and **use case apps** and **workflows** on top of DataON CANVAS.
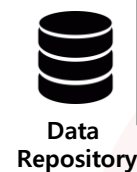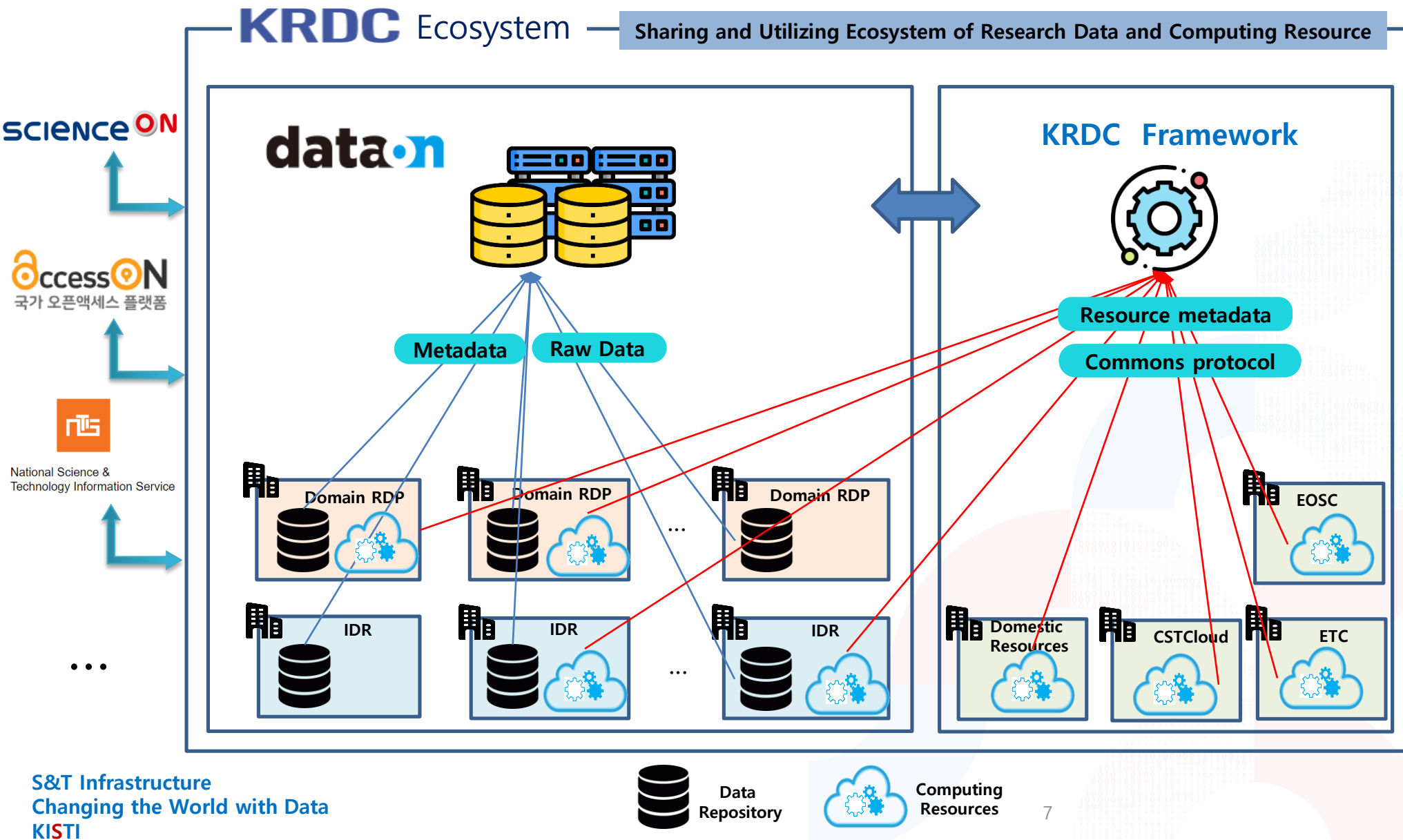
Research Data Sharing and Utilizing Ecosystem

data·n

Metadata   Raw Data

Domain RDP   Domain RDP   ...   Domain RDP

IDR   IDR   ...   IDR

Data Repository

Computing Resources

Connected/connecting Platforms

- Domain research data platform: 2(ongoing: Biology, Materials), 2(planned: Aerospace, Huge experimental Science, etc)

- Research data platform for government-funded research institutes: 10

- Universities, other organizations: 9

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KRDC Ecosystem — Sharing and Utilizing Ecosystem of Research Data and Computing Resource

SCIENCE ON

accessON
국가 오픈액세스 플랫폼

National Science &
Technology Information Service

...

data·n

KRDC Framework

Metadata   Raw Data

Resource metadata

Commons protocol

Domain RDP   Domain RDP   Domain RDP   ...   EOSC

IDR   IDR   ...   IDR   Domestic Resources   CSTCloud   ETC

**S&T Infrastructure
Changing the World with Data
KISTI**

Data
Repository

Computing
Resources

Roadmap for KRDC in KISTI

6 Year roadmap in KISTI

	~2020	2021	2022	2023	2024	2025	2026
Policy	OD Strategy	Draft bills for Open Science and Open Data		Application of the law(s) (Parliamentary legislation vs government legislation)		Follow-up policy & strategy	
Research Data Mgt.	DataON & NaRDA Dev. and Operation	Advanced DataON & NaRDA(Repository)		CoreTrustCeal, NaRDA Opensource, AI based Curation		Developing use cases, Incentivization support function	
KRDC	-	Model design, Dev. of KRDC Core framework		Support KRDC application to other institutions, Interconnection between Research Data Commons in Korea		Interconnection with global RDCs, Dissemination of KRDC framework, Developing use cases	