

Challenges and Opportunities for Research Data Management in China Library Community

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IFLA ILDS 2019 Prague.

Beyond the paywall: Resource sharing in a disruptive ecosystem



About...



National Science Library
Chinese Academy of Sciences

Chinese Academy of Sciences

- More than 100 Research Institutes
- 3 Universities
- Over 130 National laboratories
- Over 210 field observation stations.
- More Than 68,000 Formal Employees
- Over 52,000 Graduate Students.

National Science Library, CAS

System of National Science Library

National Science Library,
Chinese Academy of Sciences

Chengdu Branch
Library

Wuhan Branch
Library

Over 100 research institution's libraries



Focus in this presentation



National Science Library
Chinese Academy of Sciences

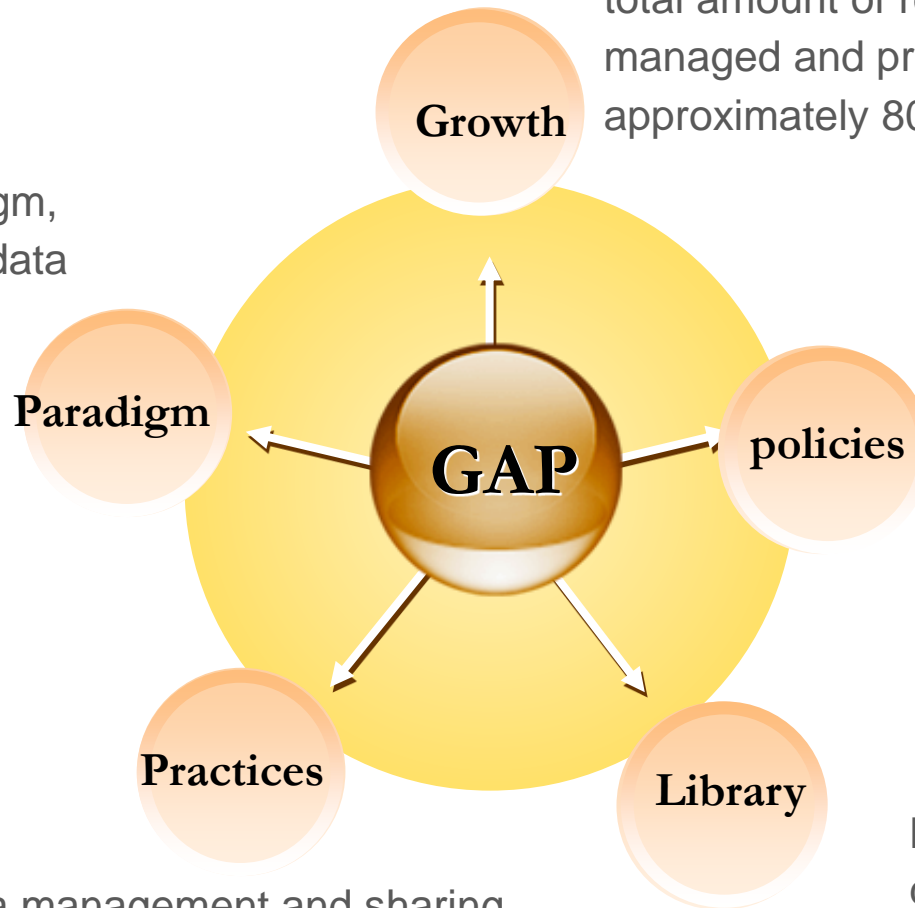
1. The gap between research data management and new research paradigm demand
2. China's research data management policies and features
3. National research data management and sharing platforms
4. Universities' data repositories
5. Journal data publishing
6. Libraries' RDM patterns and SWOT analysis
7. Suggestions



Gap between demand and reality



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Research data management related policies



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The State Council

Research data management measures 2018.3 milestone

Interim sharing and management measures for government information resources 2016.9

Action plan for promoting big data development 2015.9

Outline of the national program for medium and long-term scientific and technological developments (2006-2020) 2006.2

State Oceanic Administration, Ministry of Transport, Ministry of Land and Resources, The Ministry of Agriculture, National Marine Information Center, China Meteorological Administration, China Earthquake Administration

Chinese Academy of Sciences

Research data management and open sharing measures for the Chinese Academy of Sciences 2019.2



Research data management related policies



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1

Most of the policies are issued by the state council and ministries.

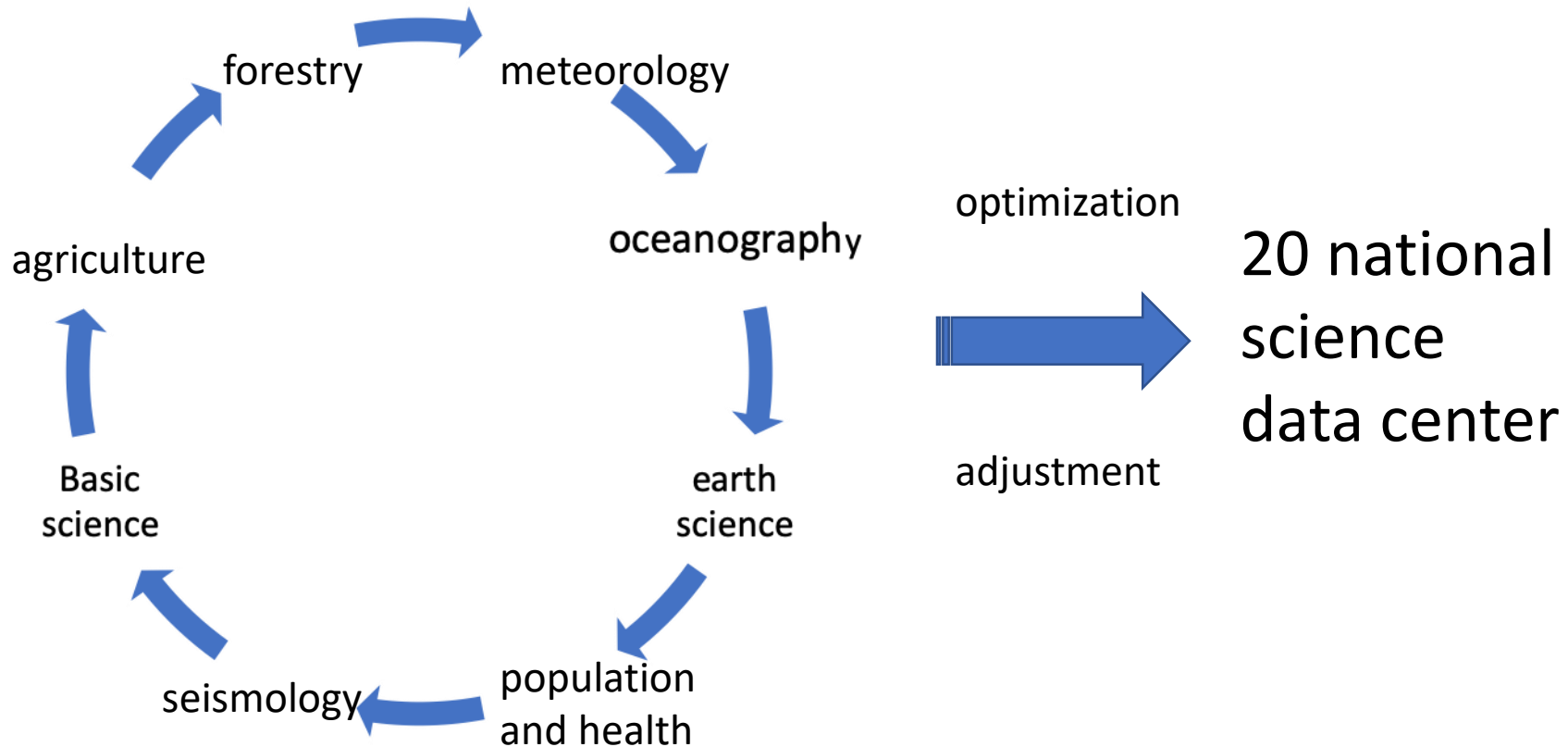
2

It is predictable that there will be more policies will be released by funding institutions and research institutions to make supplementary to those policies issued.

3

The complementary policies should ensure DMP be carried out with projects, make more clear on assignment of responsibilities, operational process, share and access.

National research data management and sharing platforms



National research data management and sharing platforms

1. <http://www.ncmi.cn>
2. <http://www.geodata.cn>
3. <http://www.cfsdc.org>
4. <http://www.agridata.cn>
5. <http://data.earthquake.cn>
6. <http://data.cma.cn>
7. <http://www.nsdata.cn>
8. <http://mds.nmdis.org.cn>



National research data management and sharing platforms



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GOOD

- ✓ One stop discovery
- ✓ Data resources link
- ✓ Discipline-specific metadata standards
- ✓ Keywords are searchable
- ✓ Support life cycle data management
- ✓ Support discovery and access
- ✓ Data volume is TB level

NOT GOOD

- Not true data fusion
- Without name data entities with URI
- Not adopted common standards like Dublin or Datacite Schema
- Free word indexing
- Lack DMP functions
- Limited services with non-registered users, especially for download and API
- Data service volume is GB level

Three types of Standards and Regulations:

- Regulations related to the operation of platform
- Regulations set of data management standards
- Regulations involve platform development and user services
- Formed 18 national research data standards (Like Soil Science Data Metadata)

University Data Repositories



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<https://opendata.pku.edu.cn/>

<http://dvn.fudan.edu.cn/home/>

Dataverse

Open
research
platform
Reking U

Social
science data
platform
Fudan U

Dataverse

Digital repositories and
services platform
Shanghai international
studies U

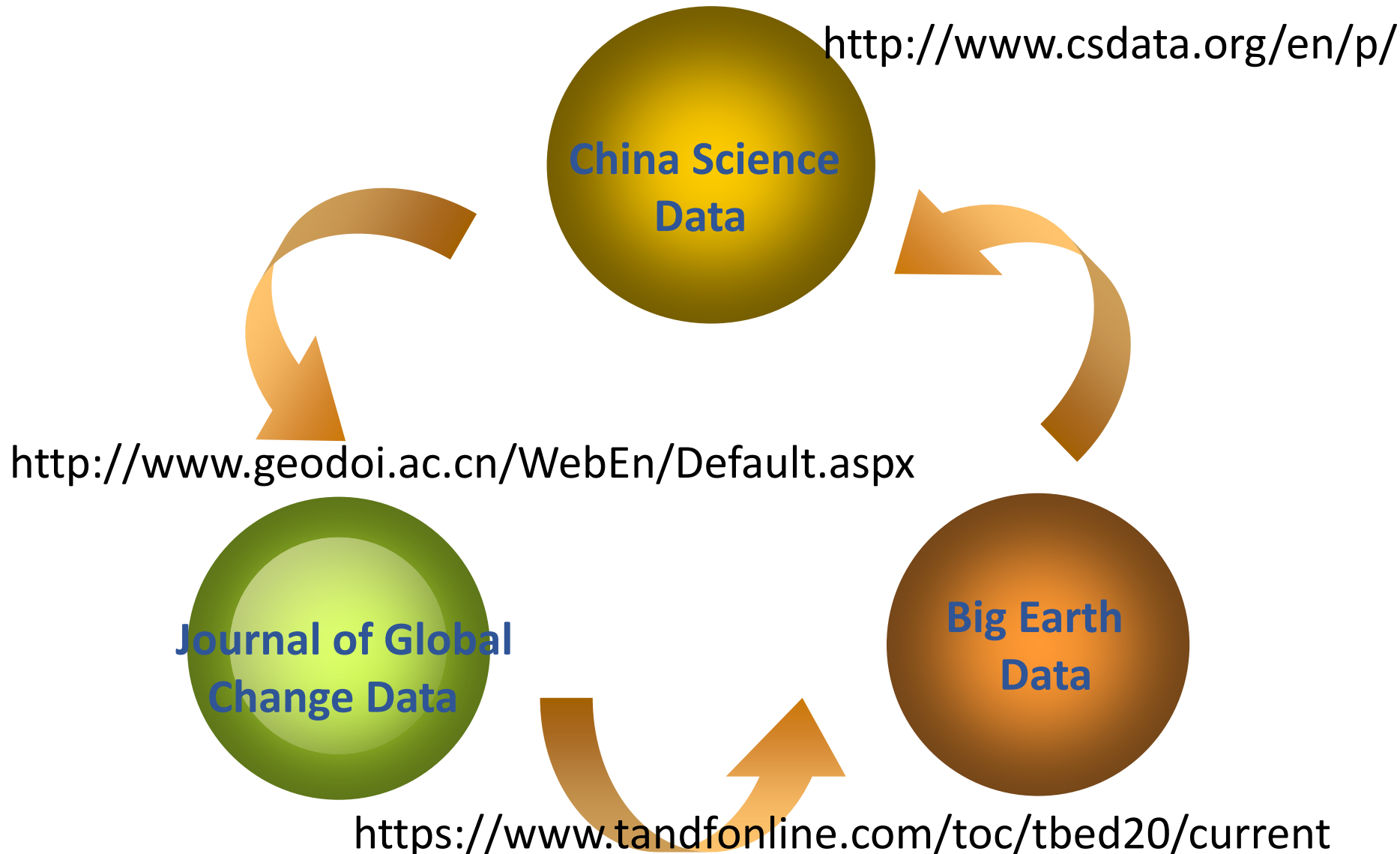
Dataverse

Dspace

RDM
Platform
Wuhan U

<http://sdm.lib.whu.edu.cn/jspui/>

<https://datam.shisu.edu.cn/home/>





Data management platform



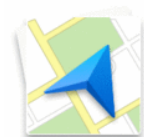
Data resource discovery system



Consulting and training



Data analysis and visualization



Open access data integration and navigation

Data Conservancy of John Hopkins University Library

Pre middle post research stage data management services in York University

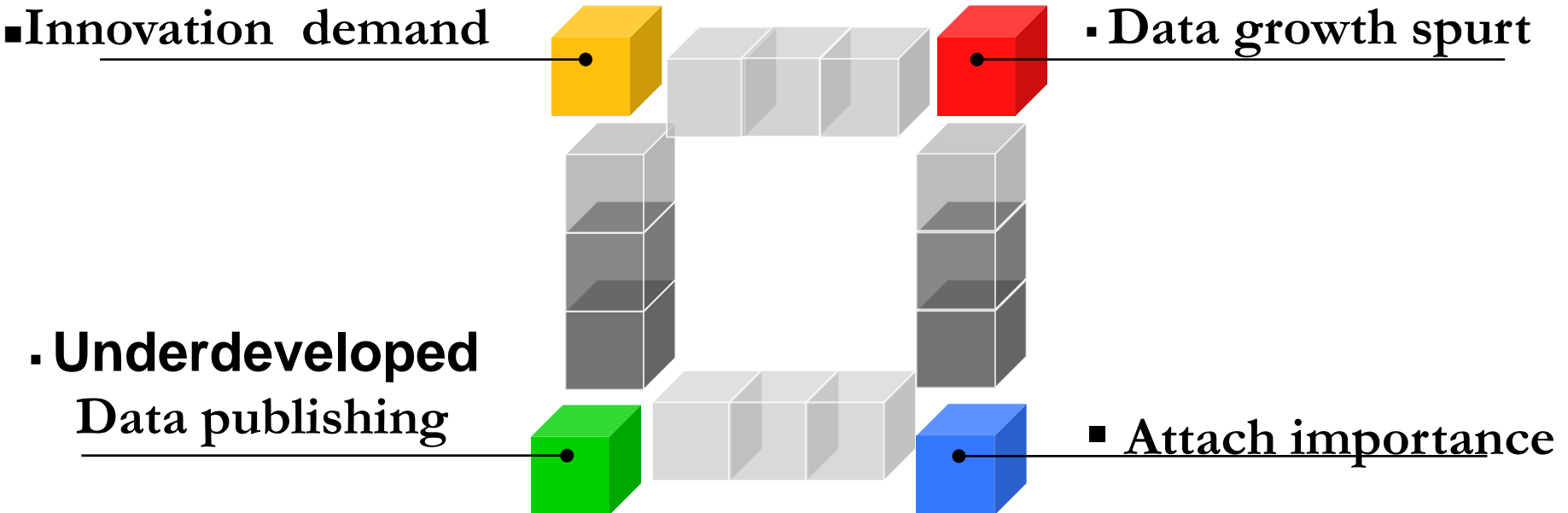
DOI registration service of German National S&T Library

Dryad data knowledge base of German National Library of Medicine

SWOT-External opportunities



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- ❑ Not well prepared to transform for new research paradigm
- ❑ Library's role is not reach an agreement in all levels



SWOT-Internal advantage and disadvantage



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Advantage

Realize and act

Rich experience on
Inf infrastructure

Rich experience
On inf organization

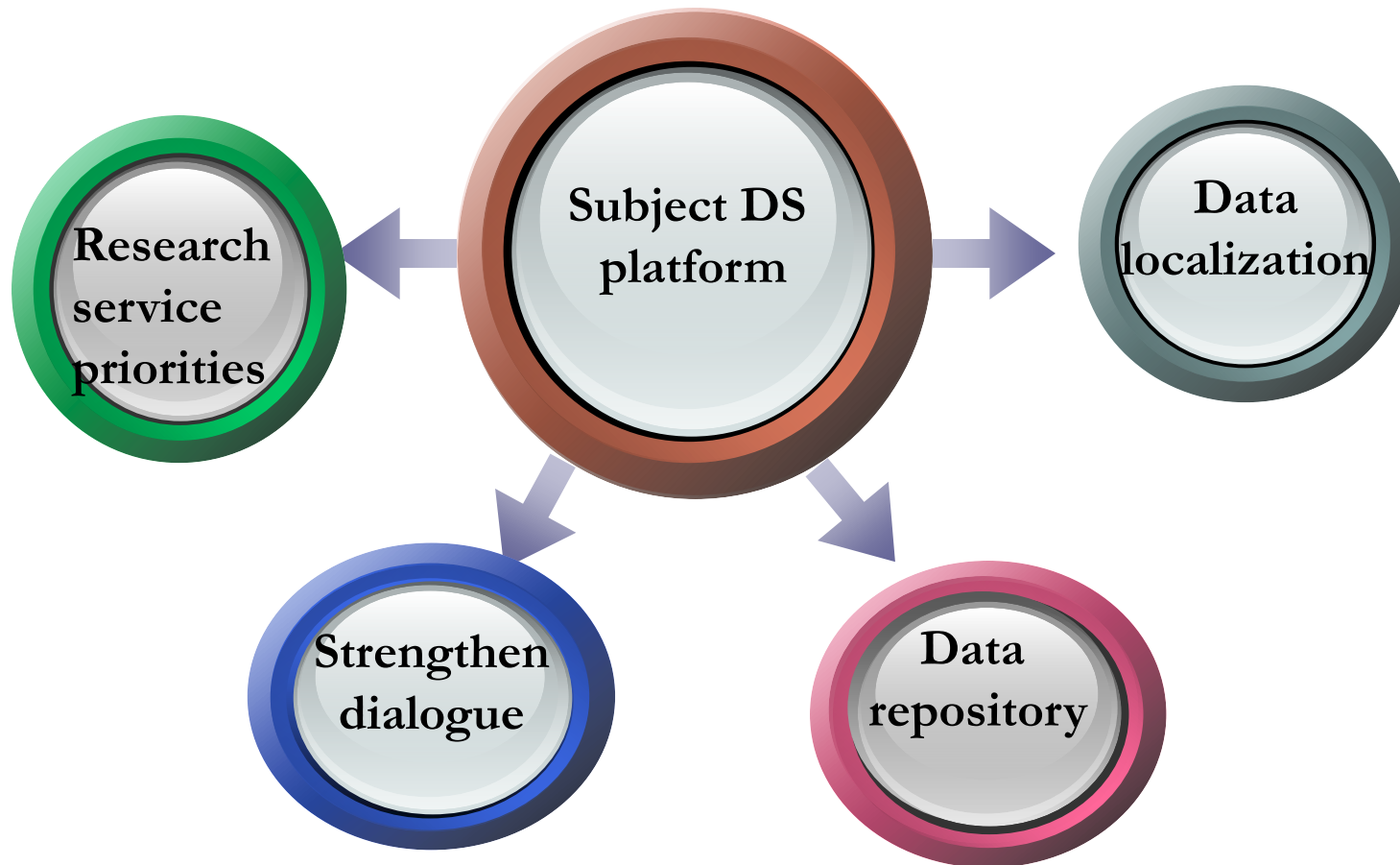
Existed commercial platforms

Dis advantage

Lack of talent

No precise role awareness

No corresponding strategy
and deployment



Thank You !

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