Title	NII's Initiative for Institutional Repository over CSI : Retrospect of 2006-2007 and Prospect of Phase II
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NII's Initiative for Institutional Repository over CSI:

Retrospect of 2006-2007 and Prospect of Phase II

DRF International Conference
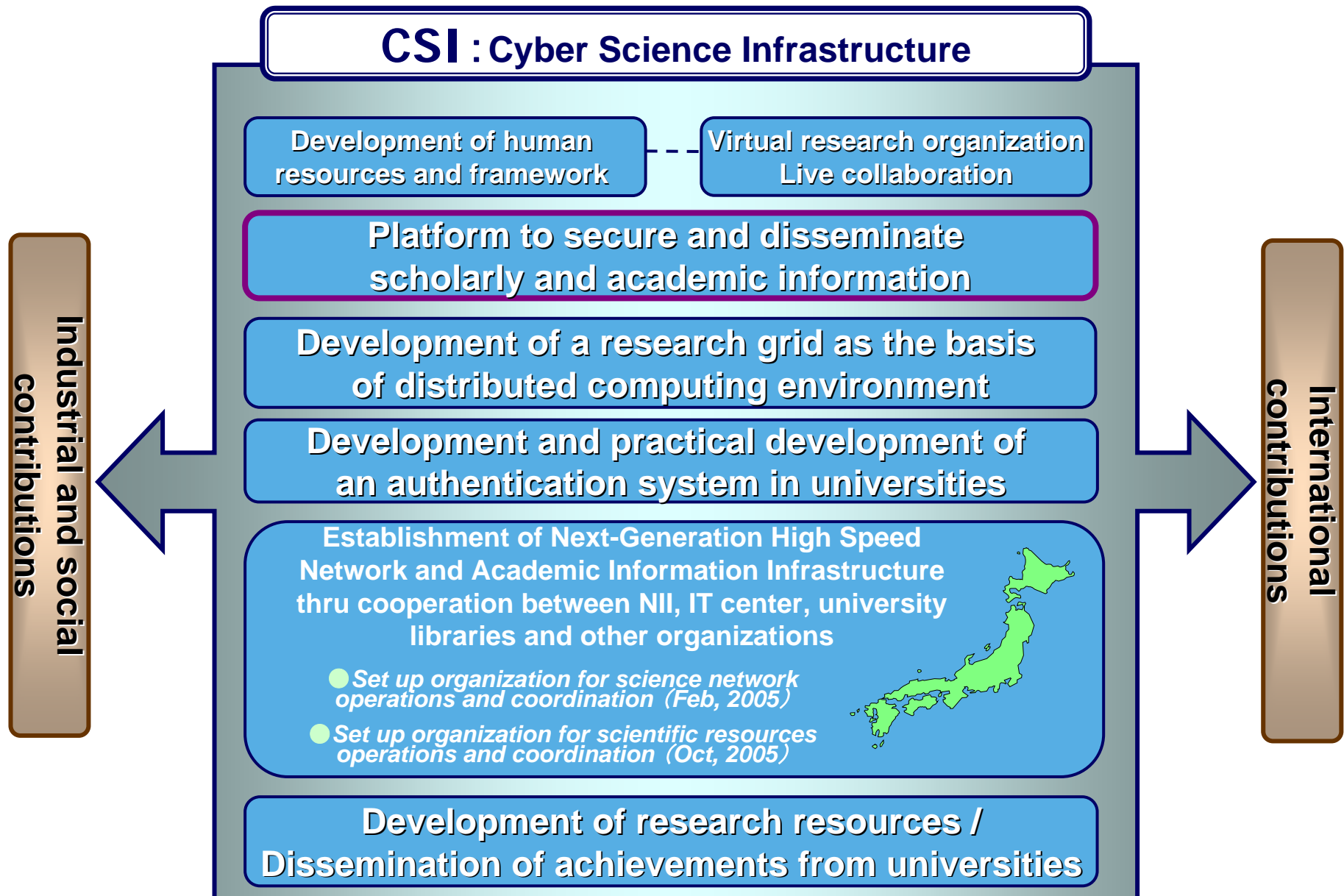**Osaka, January 30, 2008**

Jun Adachi

National Institute of Informatics

Concept of CSI

CSI : Cyber Science Infrastructure

Development of human resources and framework

Virtual research organization Live collaboration

Platform to secure and disseminate scholarly and academic information

Development of a research grid as the basis of distributed computing environment

Development and practical development of an authentication system in universities

Establishment of Next-Generation High Speed Network and Academic Information Infrastructure thru cooperation between NII, IT center, university libraries and other organizations

● *Set up organization for science network operations and coordination （Feb, 2005）*

● *Set up organization for scientific resources operations and coordination （Oct, 2005）*

Development of research resources / Dissemination of achievements from universities

Industrial and social contributions

International contributions

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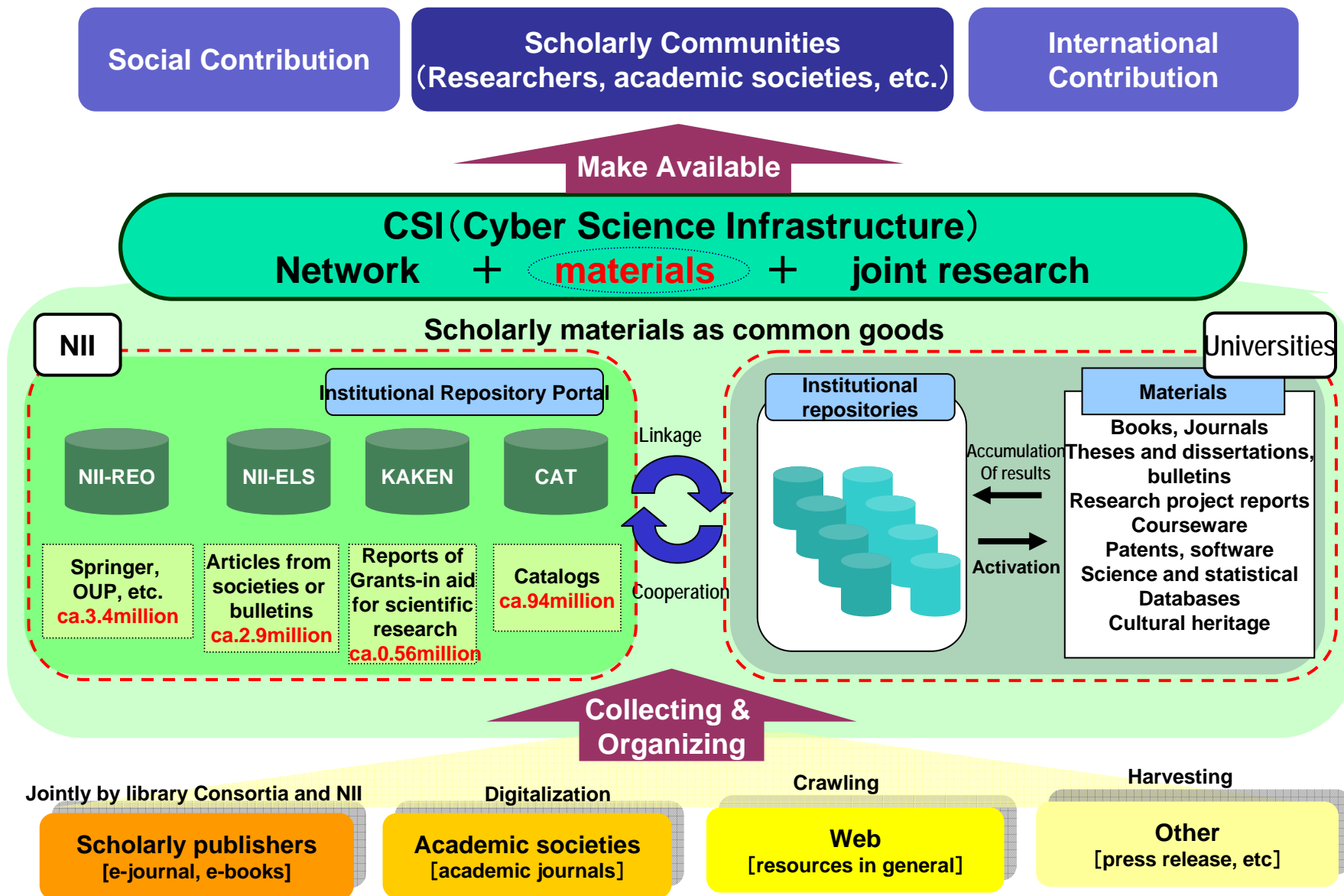
Current Major Efforts in CSI

☐ Next-Generation Science Information Network：SINET3,

☐ University Public Key Infrastructure：UPKI
  for sharing information and securing information access in universities,

☐ Grid Middleware for high performance computing：NAREGI

☐ Next-Generation Scholarly Information Infrastructure

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Next Generation Scholarly Information Infrastructure

Social Contribution

Scholarly Communities
（**Researchers, academic societies, etc.**）

International Contribution

Make Available

CSI（**Cyber Science Infrastructure**）
Network ＋ *materials* ＋ **joint research**

Scholarly materials as common goods

NII

Institutional Repository Portal

NII-REO	NII-ELS	KAKEN	CAT
Springer, OUP, etc. ca.3.4million	**Articles from societies or bulletins** ca.2.9million	**Reports of Grants-in aid for scientific research** ca.0.56million	**Catalogs** ca.94million

Linkage

Cooperation

Universities

Institutional repositories

Accumulation Of results

Activation

Materials

Books, Journals
Theses and dissertations, bulletins
Research project reports
Courseware
Patents, software
Science and statistical Databases
Cultural heritage

Collecting & Organizing

Jointly by library Consortia and NII

Scholarly publishers
[e-journal, e-books]

Digitalization

Academic societies
[academic journals]

Crawling

Web
[resources in general]

Harvesting

Other
[press release, etc]

Scholarly Information-related Activities at NII

- **Collaboration with University Libraries**
  - NACSIS-CAT/ILL
    - Establishment of union catalog databases and promotion of ILL （interlibrary loan system）
  - Promoting dissemination of scholarly journals
    - Digitizing and providing research bulletins of universities
  - Supporting **institutional repositories**
    - Support for the construction and the collaboration
- **Collaboration with Academic Societies**
  - Electronic Library Service（NII-ELS）
  - International Scholarly Communication Initiative （SPARC Japan）
  - Academic Society Home Village
- **Portal Service**
  - Scholarly and Academic Information Portal（GeNii）

☐ Pilot project (FY2005):19 universities
– To expand pioneering efforts to other universitieses

☐ Full-fledged project (FY2006-2007)

– Goals
  - To expand nationwide installation of institutional repositories,
  - To boost innovative R&D
– Project areas
  - Area 1 (construction and operation of institutional repositories)
  - Area 2 (innovative R&D)
– Competitive selection process
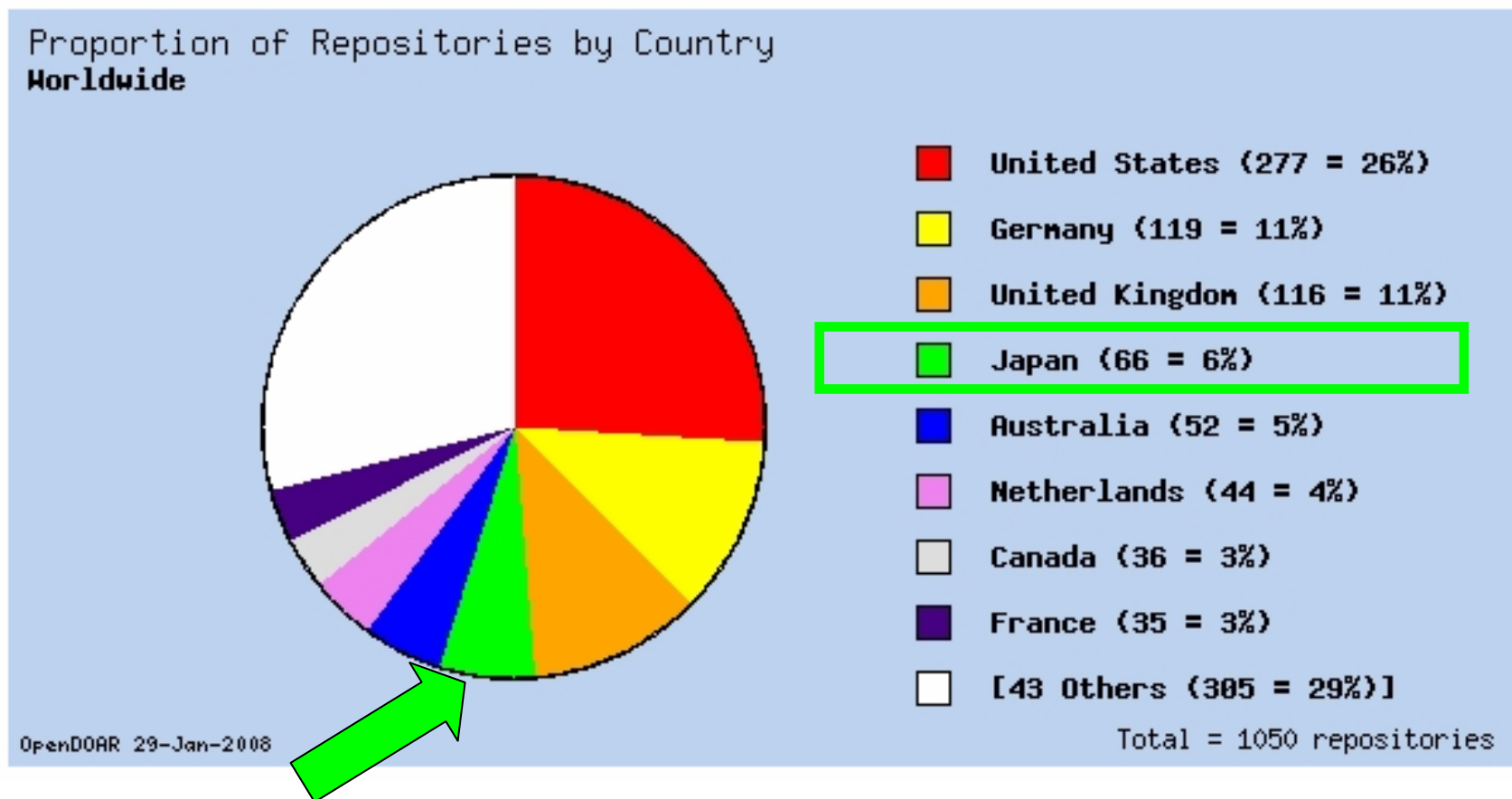 - Open call for proposals

Growth of IRs in Japan

Classified by the project participation period
Including non-partners

Pioneers：
Chiba
Hokkaido
Waseda

13 IRs
April 2006

47 IRs
April 2007

End of Dec. 2007
71 IRs

Others

Partners
From 2007

Partners
From 2006

Partners
From 2005

Partners
From 2004
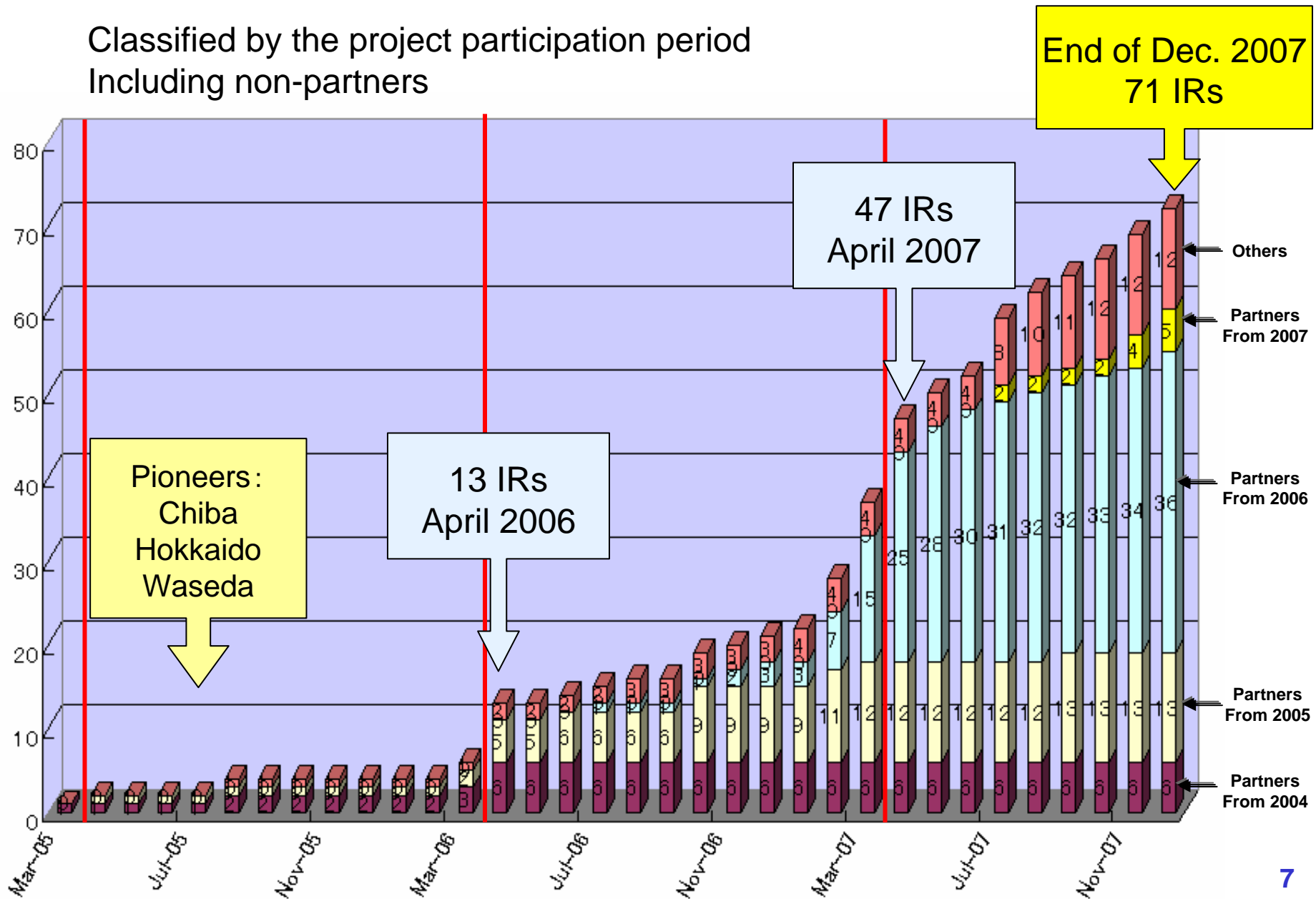
□ IRs in the world：1050
　　– Japan as the fourth

Proportion of Repositories by Country
Worldwide

■ United States (277 = 26%)

□ Germany (119 = 11%)

□ United Kingdom (116 = 11%)

■ Japan (66 = 6%)

■ Australia (52 = 5%)

□ Netherlands (44 = 4%)

□ Canada (36 = 3%)

■ France (35 = 3%)

□ [43 Others (305 = 29%)]

Total = 1050 repositories

OpenDOAR 29-Jan-2008

□ **Open DOAR: Directory of Open Access Repositories**

http://www.opendoar.org/ （Last accessed：2008/1/29）

IR contents

☐ Number of contents by resource type
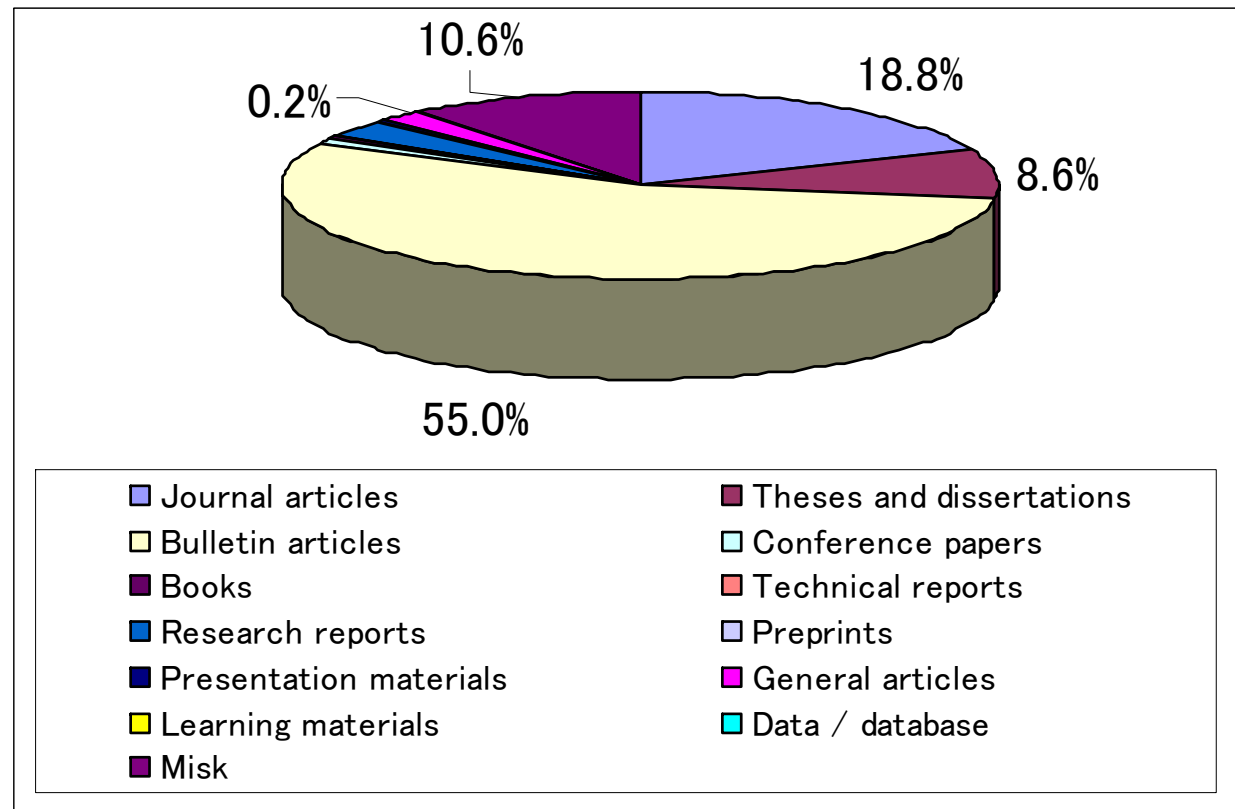
As of November 21 2007
# of IRs   45
Total # of contents 189,912

Journal articles	35,656
Theses and dissertations	16,295
Bulletin articles	104,480
Conference papers	1,630
Books	930
Technical reports	416
Research reports	5,540
Preprints	45
Presentation materials	445
General articles	3,711
Learning materials	158
Data/ database	400
Misc	20,206
Total	189,912

Legend:
- ☐ Journal articles
- ☐ Bulletin articles
- ☐ Books
- ☐ Research reports
- ☐ Presentation materials
- ☐ Learning materials
- ☐ Misk
- ☐ Theses and dissertations
- ☐ Conference papers
- ☐ Technical reports
- ☐ Preprints
- ☐ General articles
- ☐ Data / database

Pie chart percentages: 10.6%, 0.2%, 18.8%, 8.6%, 55.0%

☐ JuNii+ http://juniiplus.csc.nii.ac.jp/

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CSI Initiative (FY2006 - 2007)

☐ **Selection result in 2006**
- Area 1: 57 universities out of 77 (National: 47, Public: 0, Private: 10)
- Area 2: 22 projects out of 30

☐ **Interim evaluation of the 2006 activities**
- Good practices
  - Area 1：8 universites
  - Area 2：6 projects
- Summary of the interim evaluation (March 2007, in Japanese)
  - http://www.nii.ac.jp/irp/info/2006/CSIH18report.pdf

☐ **Selection result in 2007**
- Area1: 57 universities continued, and additional 13 are selected out of 24 applications（National: 57, Public: 0, Private:13）
- Area 2: Reorganization of 2006 projects (from 22 to 14)

CSI initiative: Area 2 projects (2007)

Area 2 projects（2007）	Leader（Collaborators）
○Activation of IR community(Digital Repository Federation)	Hokkaido University（Chiba University, Kanazawa University）
○Access to institutional resources via link resolvers (AIRway)	Hokkaido University（Tsukuba University, Chiba University, Nagoya University, Kyushu University）
Faculty publication database and institutional repositories	Kanazawa University（Kyushu University, Waseda University）
○Sharing copyright policies of academic societies in Japan(SCPJ)	Tsukuba University（Chiba University, Kobe University）
Development of Tokyo Tech Research Repository(T2R2)	Tokyo Institute of Technology
○Integrated search of on-campus academic resources	Kyushu University
Crosswalk of various metadata	Nagoya University
○Evaluation methods of institutional repositories	Chiba University（Mie University）
Integrated information system of IR, learning, and education	Mie University
Community creation via co-evolution of researcher and information	Chiba University（Kyushu University）
E-publication system and institutional repositories	Waseda University（Hiroshima University, Nagasaki University）
Author authority directory	Nagoya University
○XooNIps Library modules	Keio University
User navigation with topic maps	Hokkaido University

Red indicates 2006 good practices

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☐ **Achievements**

– Area 1: Increase of IRs and their contents

– Area 2:

- Clarification of technical and institutional problems
- Establishment of librarian community
  - Digital Repository Federation
  - Society Copyright Policy Japan
    - » 194 policies as of Jan 2007, 936 as of July 2007

☐ **Lessons**

– Some projects for system development do not have apparent propagation to other institutions

– How to keep sustainability

Digital Repository Federation

Go!

Society Copyright Policies in Japan

Go!

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JuNii+: The portal of Japanese IRs

Search engines
- Google Scholar
  - Google
- OAIster ・・・

Crawl/harvest

metadata

Fulltext

Institutional repositories

harvesting

JuNii+

（Beta release http://juniiplus.csc.nii.ac.jp/）

Journals articles will go to
CiNii

Federated search over all institutional repositories in Japan that are compliant with metadata format junii2
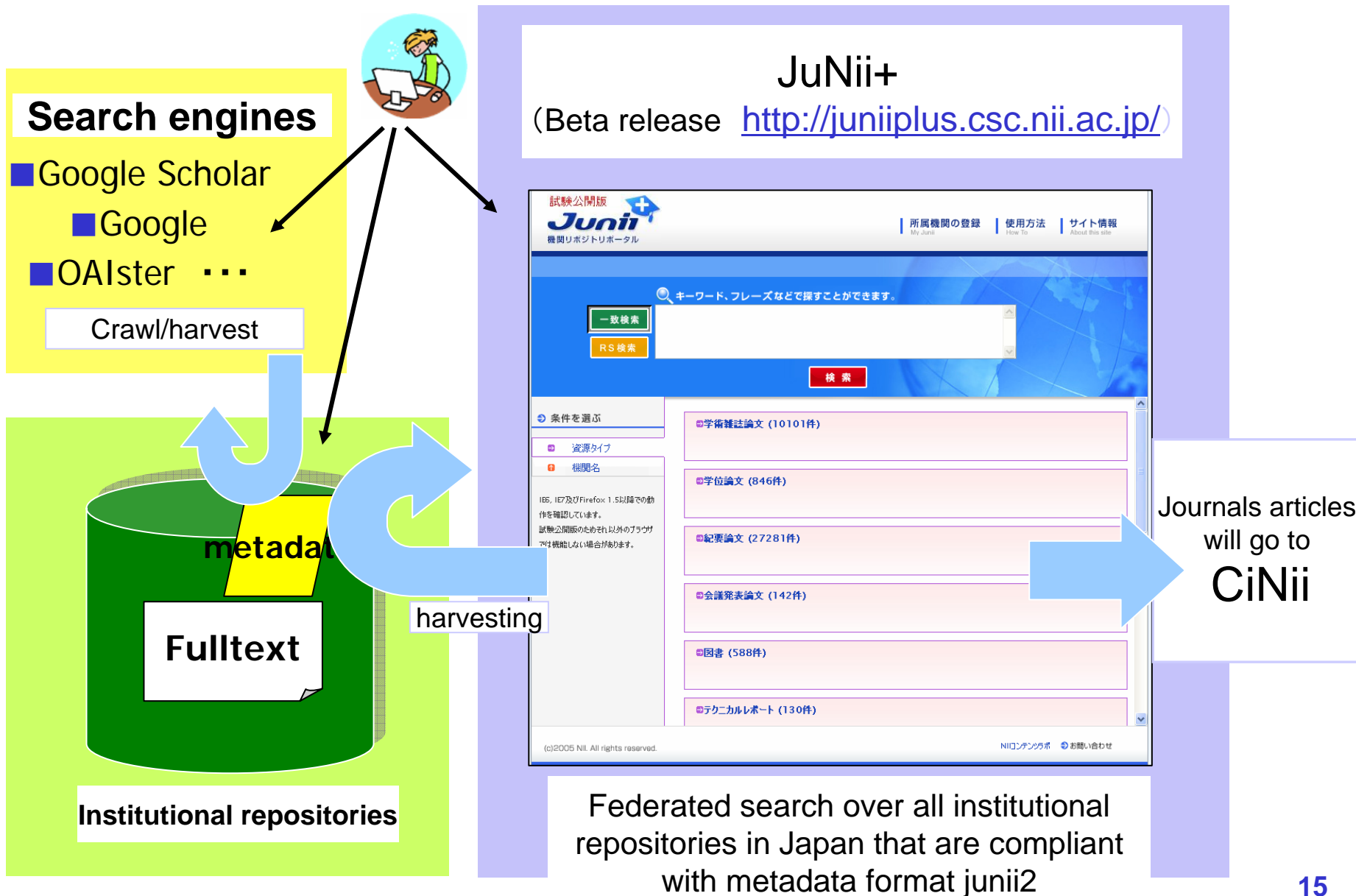
Third-party evaluation

☐ **Positioning of institutional repositories initiative**

  – NII's yet another initiative with high public interests to strengthen scholarly infrastructure for universities after CAT/ILL
  – NII is considered suitable organization to lead IR initiative and foster expertise

☐ **Questionnaire results**

  – Recognition of IR
    • Users：　　　85% recognize　　　　　　（n=163）
    • Librarians：　Almost 100% recognize　　（n=469）

  – Progress in introduction of IR　　（n=469）
    • Already opened：　　　14.6%
    • Planning to install：　　13.1%
    • Interested：　　　　　58.2%

Source: *User study of cyberscience infrastructure provided by an inter-university research institute---plan and design for the next-generation CSI* (final report, in Japanese) September 2007

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Current issues

1. Budget for sustainable activities
   - University administration's support

2. Nationwide expansion
   - Expansion towards small universities
   - Increase of the number of IRs
   - Shared service for repository

3. Quality control of IRs
   - Usability of IRs（content quality）
   - Review of R&D projects

4. Resource policy of IRs
   - Priority of resource types

5. Support for IR manager community
   - Digital Repository Fedeartion
   - Society Copyright Policy Japan

6. E-science
   - E-science and institutional repositories

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Towards FY2008

☐ **Basic framework**

- Further strengthen the initiative in Phase II (FY2008-2009)
- NII will invest digital content in priority resource types, such as dissertation, project reports and technical reports
- Invite innovative R&D

☐ **Keys to Phase II**

- Emphasis on sustainable and self-supported activities
- Area 1 will focus on priority resource type contents
- Area 2 will stress projects with wider effects and innovative additional values

Triangular coexisting model

IR

University/
Academic
institute

Improving visibility/Activating community

Publisher

License fee

Academic journal
（Edit/Peer review）

Academic
society

ELS/CiNii
（Academic information portal）

SPARC Japan
Academic Society
HomeVillage
（Community of academic
societies）

Browsing

Return/Improving visibility

Deposit in IR

Digitization/
System infrastructure

Accomplishing missions

NII