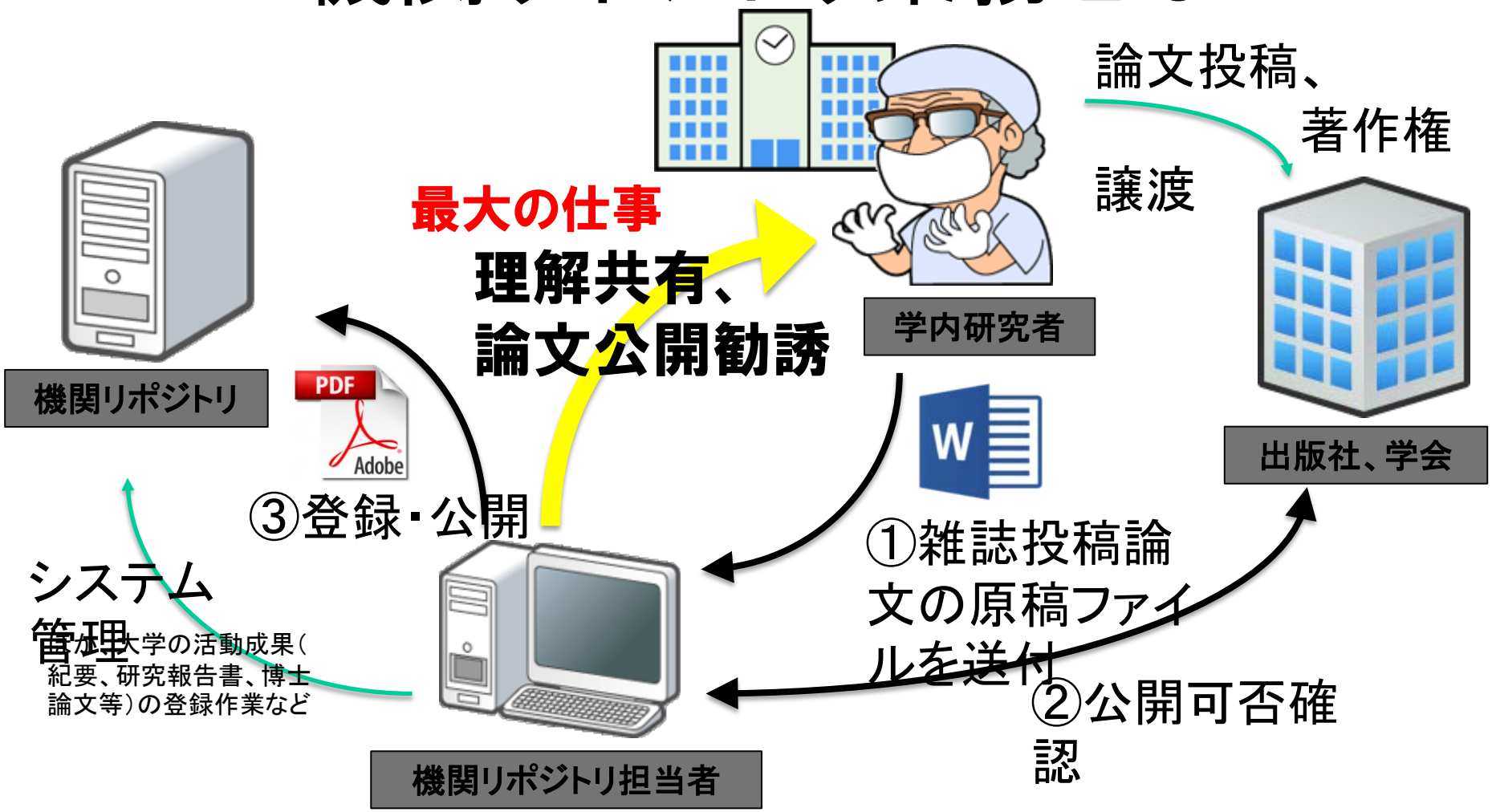
周辺動向

機関リポジトリ新任担当者研修テキスト
機関リポジトリ推進委員会
平成27年度

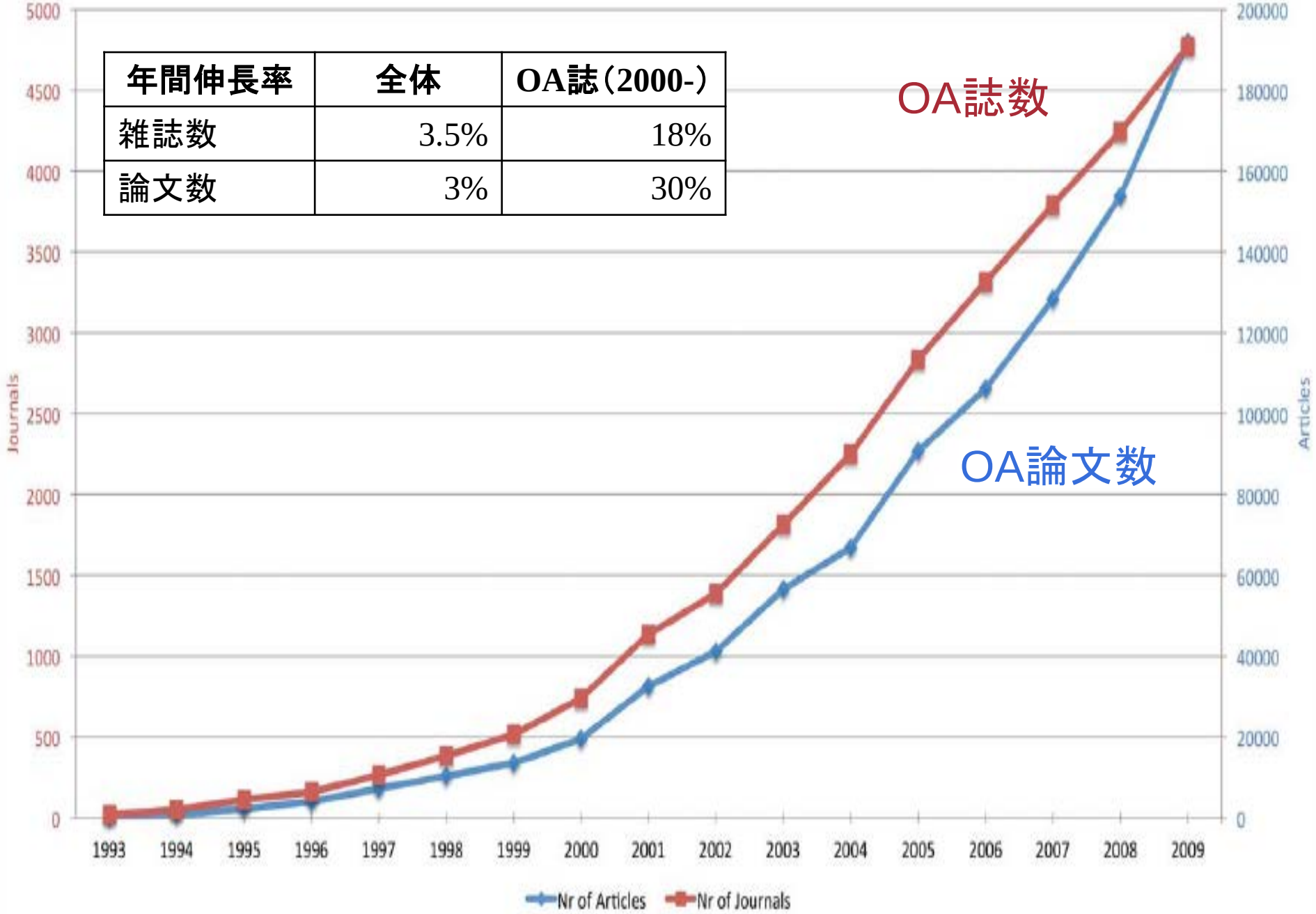
機関リポジトリ業務とは



本講の内容

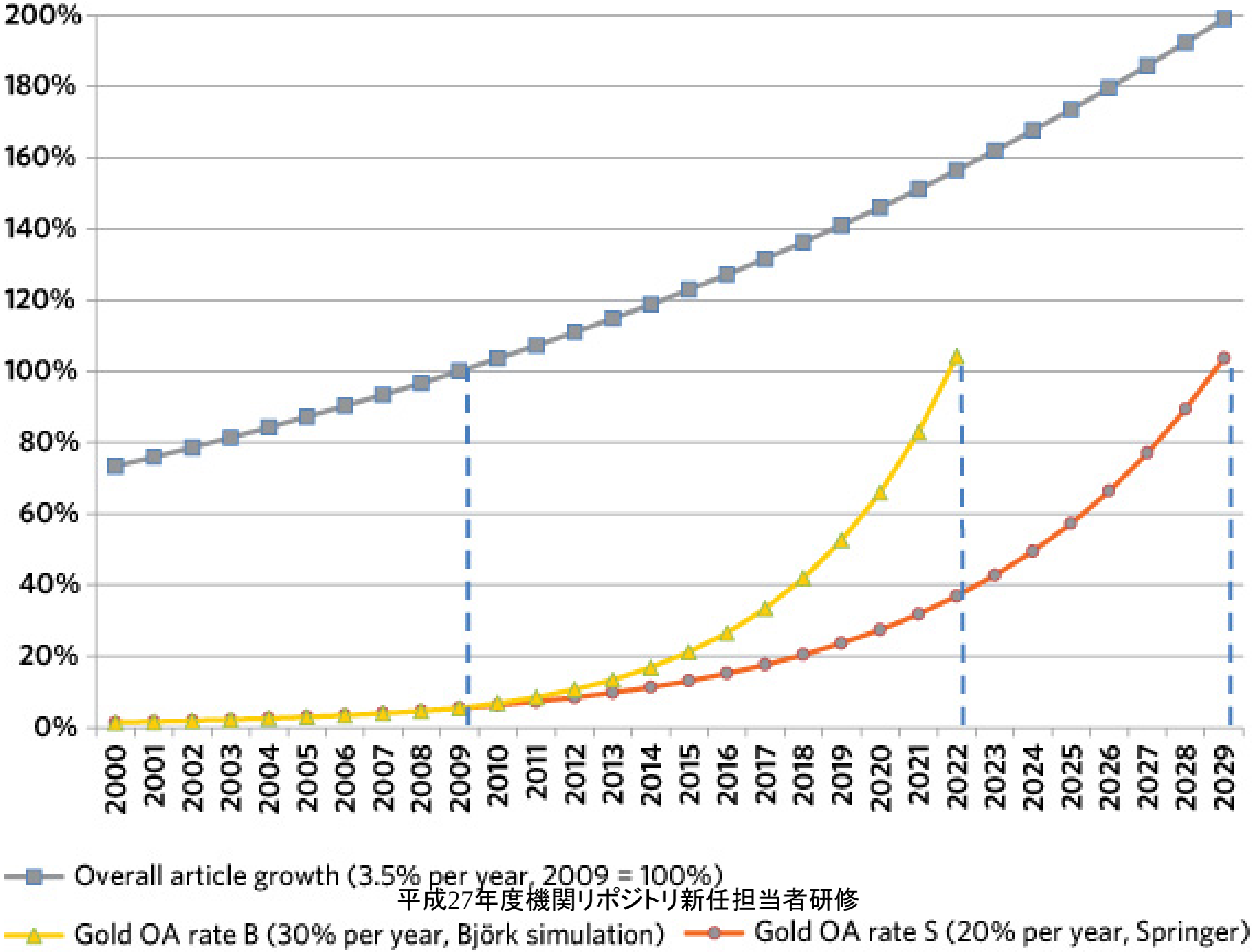
- オープンアクセス出版の動向
- 機関リポジトリ推進委員会とその活動
- 政策的オープンアクセス方針への対応
  - 内閣府「国際的動向を踏まえたオープンサイエンスに関する検討会」
  - 科学データのオープンアクセス
  - 政策的オープンアクセスを取り巻く国際動向

年間伸長率	全体	OA誌（2000-）
雑誌数	3.5%	18%
論文数	3%	30%



平成27年度機関リポジトリ新任担当者研修

Laakso M, Welling P, Bukvova H, Nyman L, Björk B-C, Hedlund T (2011)
The Development of Open Access Journal Publishing from1993 to 2009. PLoS ONE 6(6): e20961. doi:10.1371/journal.pone.0020961


200%
180%
160%
140%
120%
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80%
60%
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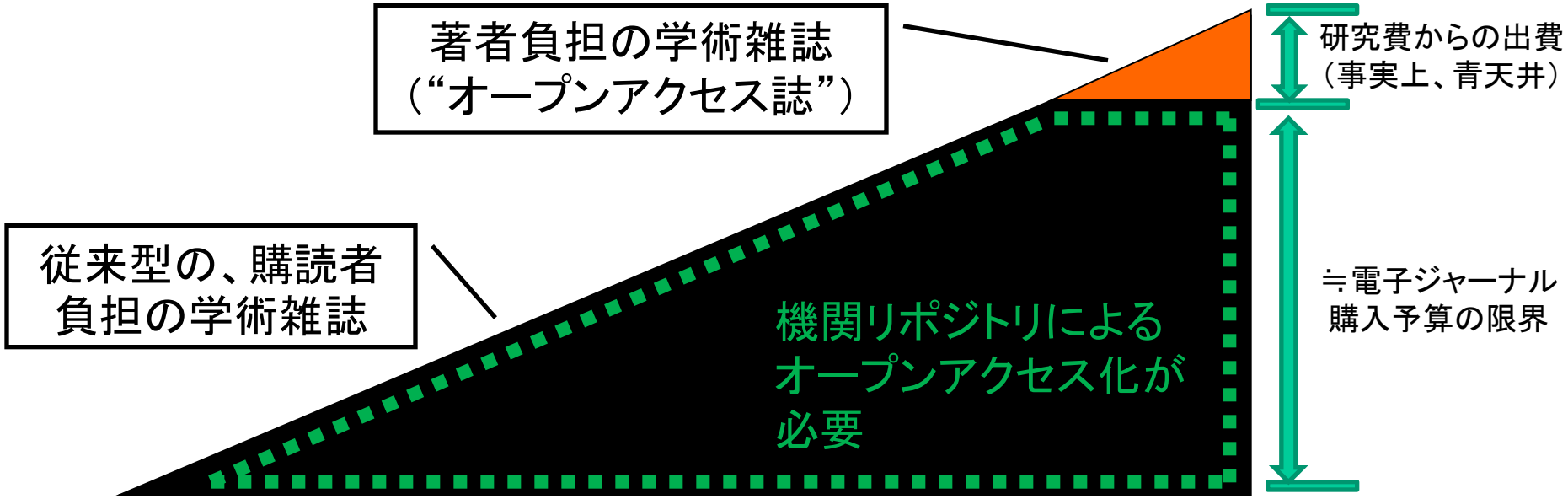
2028
2029
Overall article growth (3.5% per year, 2009 = 100%)
Gold OA rate B (30% per year, Björk simulation)
Gold OA rate S (20% per year, Springer)

やることはどっさりある!!

- 「著者負担型OA誌があればよい」？
  - 流通する学術論文の総量は純増傾向
  - 増分の受け皿として、著者負担型OA誌が発展途上（APC（著者負担額）$1000～$3000程度）



機関リポジトリ推進委員会（平25～）

国大図協
公大図協
私大図協

国公私立
大学図書館
協力委員会

連携・協力の推進に関する協定書
（平成22年10月）
連携・協力推進会議

国立情報学研究所

バックファイルを含む
電子ジャーナル等の確保と
恒久的なアクセス保証体制整備
大学図書館コンソーシアム運営委員会

機関リポジトリを通じた
大学の知の発信システムの構築
機関リポジトリ推進委員会（平成25年7月～）

電子情報資源を含む
総合目録データベースの強化
これからの学術情報システム構築検討委員会

国公私立大学図書館職員
17大学23名

ワーキンググループ協力員

協力機関
大学教員
大学URA室
高エネ研、極地研
など

方針文書「大学の知の発信システムの構築に向けて」（平成25年12月）

＜現況認識＞機関リポジトリは急速な成長と利用拡大、一方、オープンアクセス推進への貢献にはさらなる余地

＜将来展望＞大学の教育研究活動のあらゆる成果の蓄積と徹底的なオープンアクセス化を通じ、教育研究戦略に必要な情報を大学に供給するとともに学術情報流通システムを変革

戦略的重点課題
- オープンアクセス方針の策定と展開
- 将来の機関リポジトリ基盤の高度化
- コンテンツの充実と活用
- 研修・人材養成

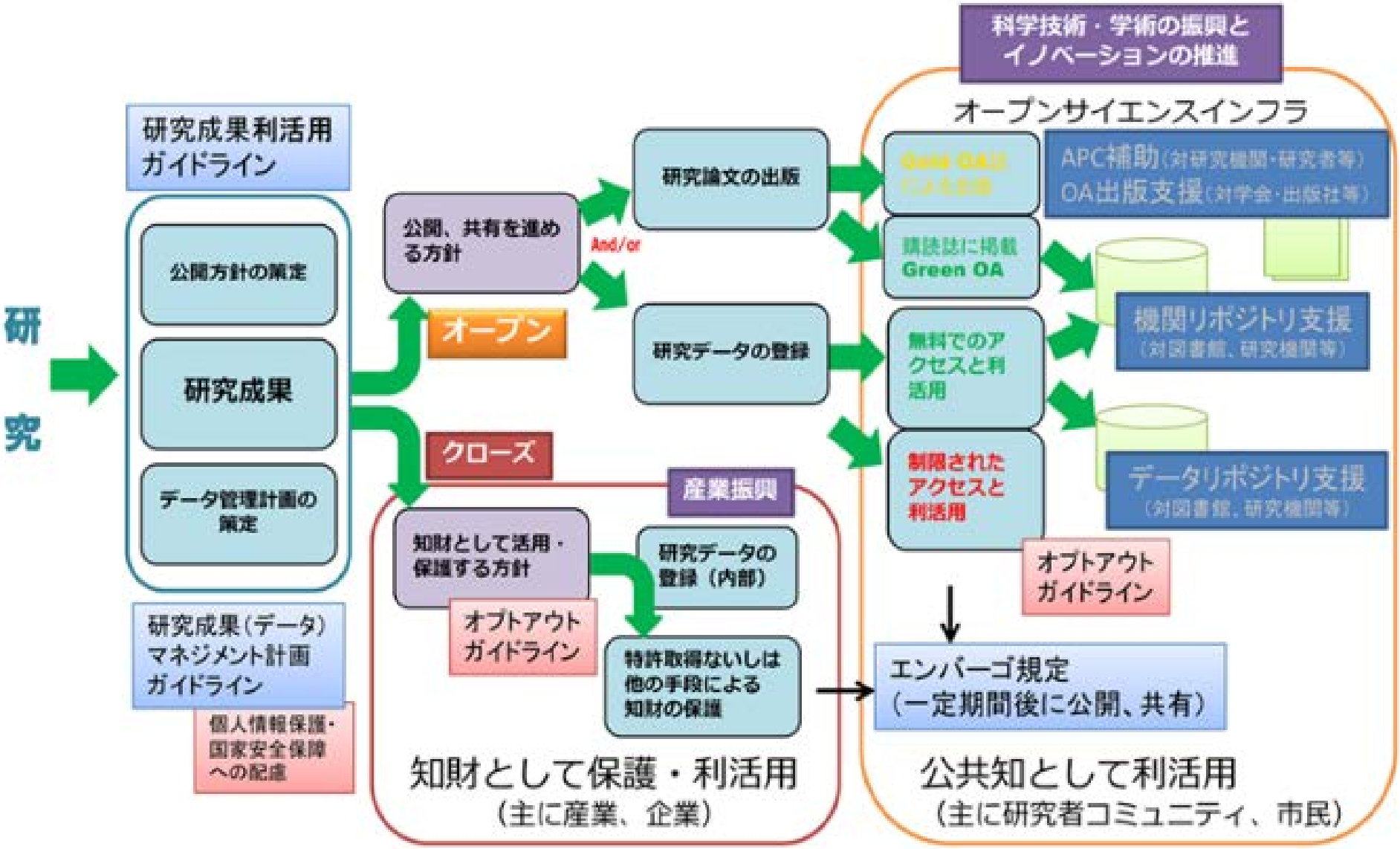
国際的動向を踏まえたオープンサイエンスに関する検討会

- 内閣府総合科学技術・イノベーション会議
- 第1回（平26.12.9）～第6回（平27.3.30）
- 趣旨：オープンサイエンスに係る世界的議論の動向を的確に把握した上で、我が国としての基本姿勢を明らかにするとともに、早急に講ずべき施策及び中長期的観点から講ずべき施策等を検討するため、「国際的動向を踏まえたオープンサイエンスに関する検討会」を開催する

報告書「我が国におけるオープンサイエンス推進のあり方について：サイエンスの新たな飛躍の時代の幕開け」（平27.3.30）

- 各省庁、資金配分機関、大学・研究機関等
  - 実施方針及びオープンサイエンスの推進計画を策定
- 公的研究資金による研究成果
  - 論文及び論文のエビデンスとなる研究データ＝原則公開
  - その他研究開発成果としての研究データ＝可能な範囲で公開
- 公的研究資金
  - 競争的研究資金及び公募型の研究資金
  - 国費が投入されている独立行政法人及び国立大学法人等の運営費交付金等
- ステークホルダーに求められる役割
- 図書館＝研究成果等の収集、オープンアクセスの推進、共有されるデータの保存・管理を行う基本機能

研究成果の利活用、オープンサイエンスの推進に係る概念図

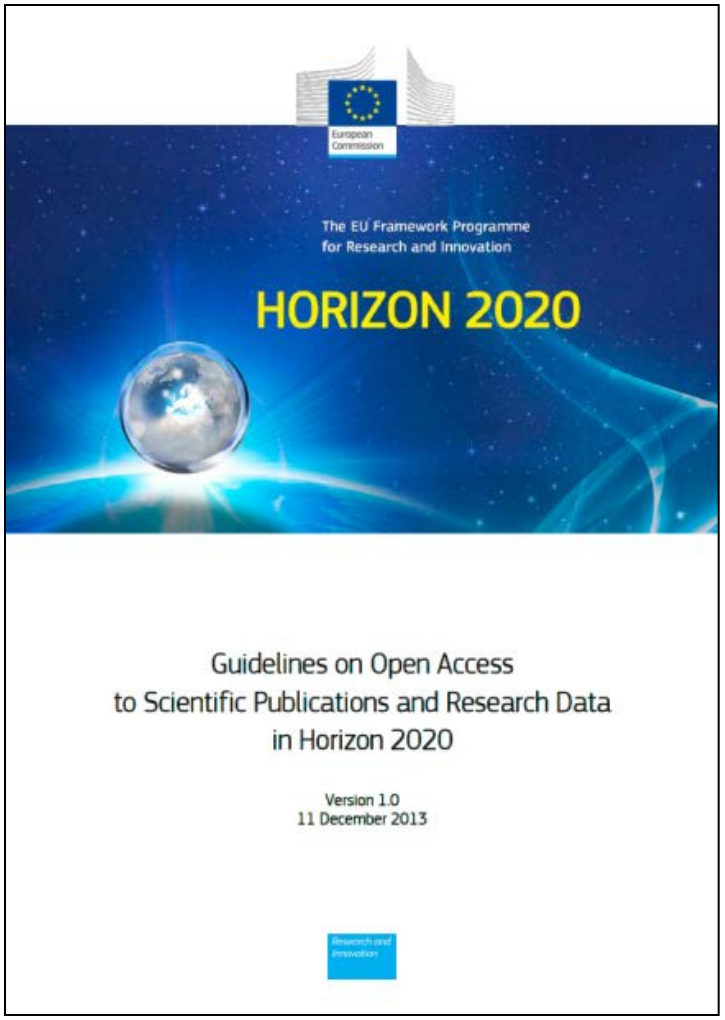


下記図表を参考に和訳、改変

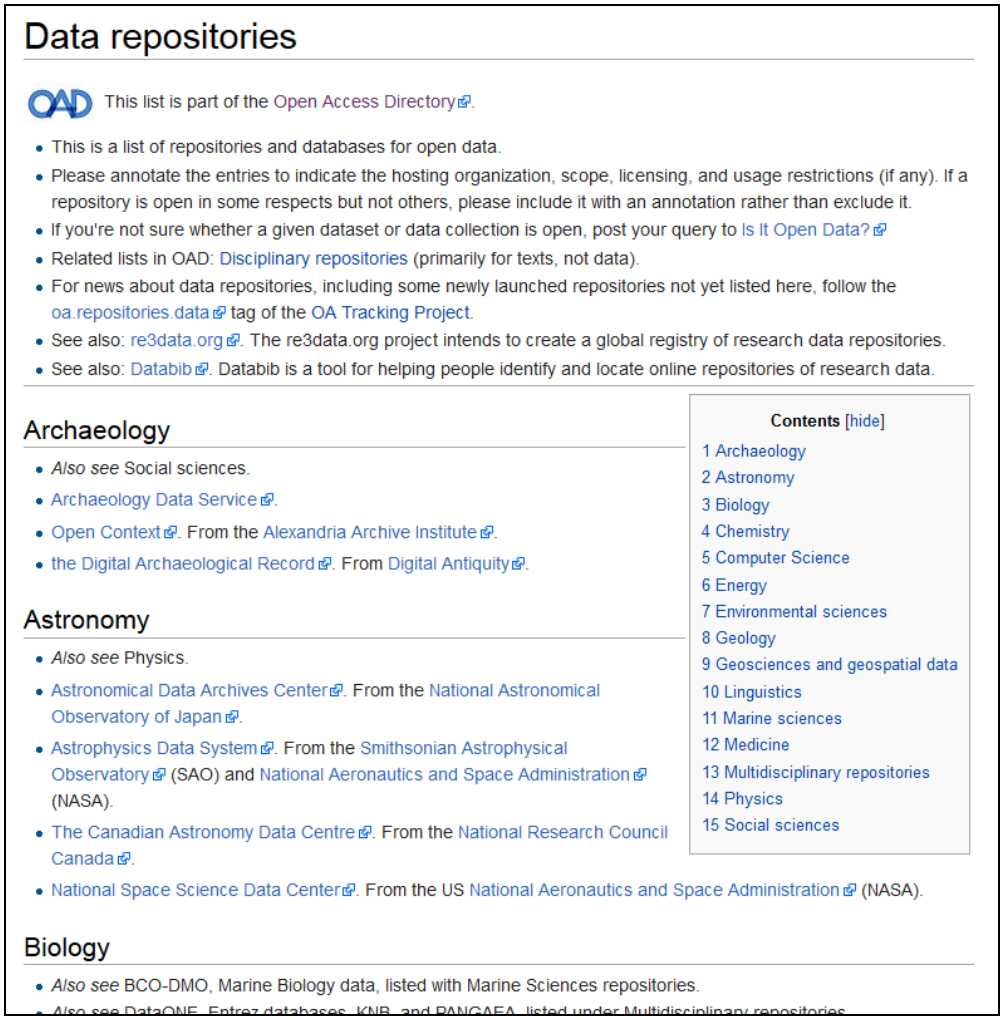
Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020 Version 1.0 11 December 2013 p.4

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

研究データへのオープンアクセス



HORIZON2020（欧州における科学技術基本計画相当の政策）



Data repositories

This list is part of the Open Access Directory.

- This is a list of repositories and databases for open data.
- Please annotate the entries to indicate the hosting organization, scope, licensing, and usage restrictions (if any). If a repository is open in some respects but not others, please include it with an annotation rather than exclude it.
- If you're not sure whether a given dataset or data collection is open, post your query to Is It Open Data?
- Related lists in OAD: Disciplinary repositories (primarily for texts, not data).
- For news about data repositories, including some newly launched repositories not yet listed here, follow the oa.repositories.data tag of the OA Tracking Project.
- See also: re3data.org. The re3data.org project intends to create a global registry of research data repositories.
- See also: Databib. Databib is a tool for helping people identify and locate online repositories of research data.

Contents [hide]

1 Archaeology
2 Astronomy
3 Biology
4 Chemistry
5 Computer Science
6 Energy
7 Environmental sciences
8 Geology
9 Geosciences and geospatial data
10 Linguistics
11 Marine sciences
12 Medicine
13 Multidisciplinary repositories
14 Physics
15 Social sciences

Archaeology

- *Also see* Social sciences.
- Archaeology Data Service.
- Open Context. From the Alexandria Archive Institute.
- the Digital Archaeological Record. From Digital Antiquity.

Astronomy

- *Also see* Physics.
- Astronomical Data Archives Center. From the National Astronomical Observatory of Japan.
- Astrophysics Data System. From the Smithsonian Astrophysical Observatory (SAO) and National Aeronautics and Space Administration (NASA).
- The Canadian Astronomy Data Centre. From the National Research Council Canada.
- National Space Science Data Center. From the US National Aeronautics and Space Administration (NASA).

Biology

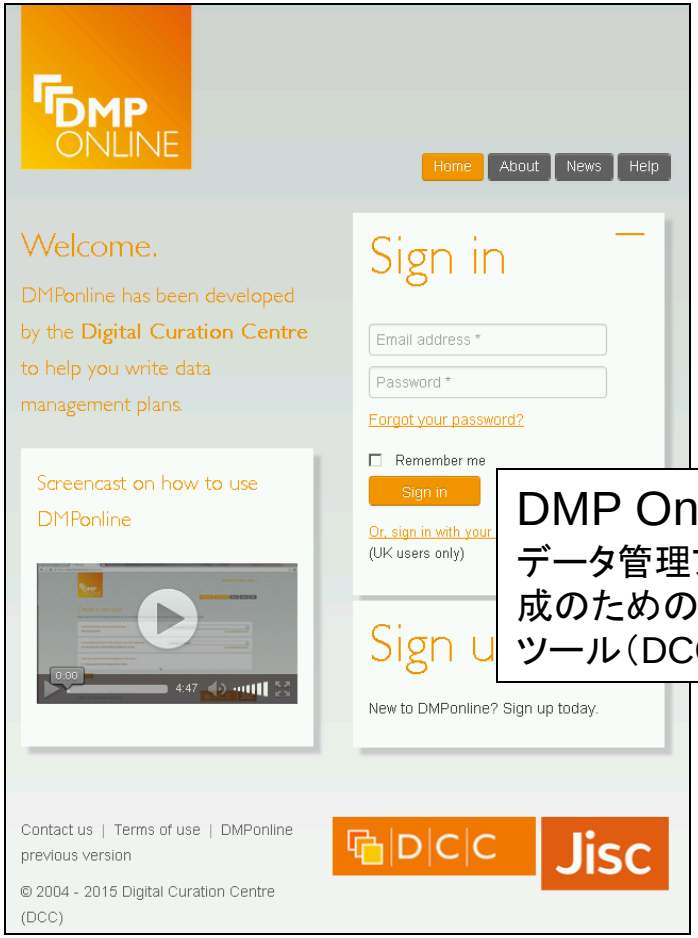
- *Also see* BCO-DMO, Marine Biology data, listed with Marine Sciences repositories.
- *Also see* DataONE, Entrez databases, KNB, and PANGAEA, listed under Multidisciplinary repositories.

Open Access Directory : Data Repositories
http://oad.simmons.edu/oadwiki/Data_repositories

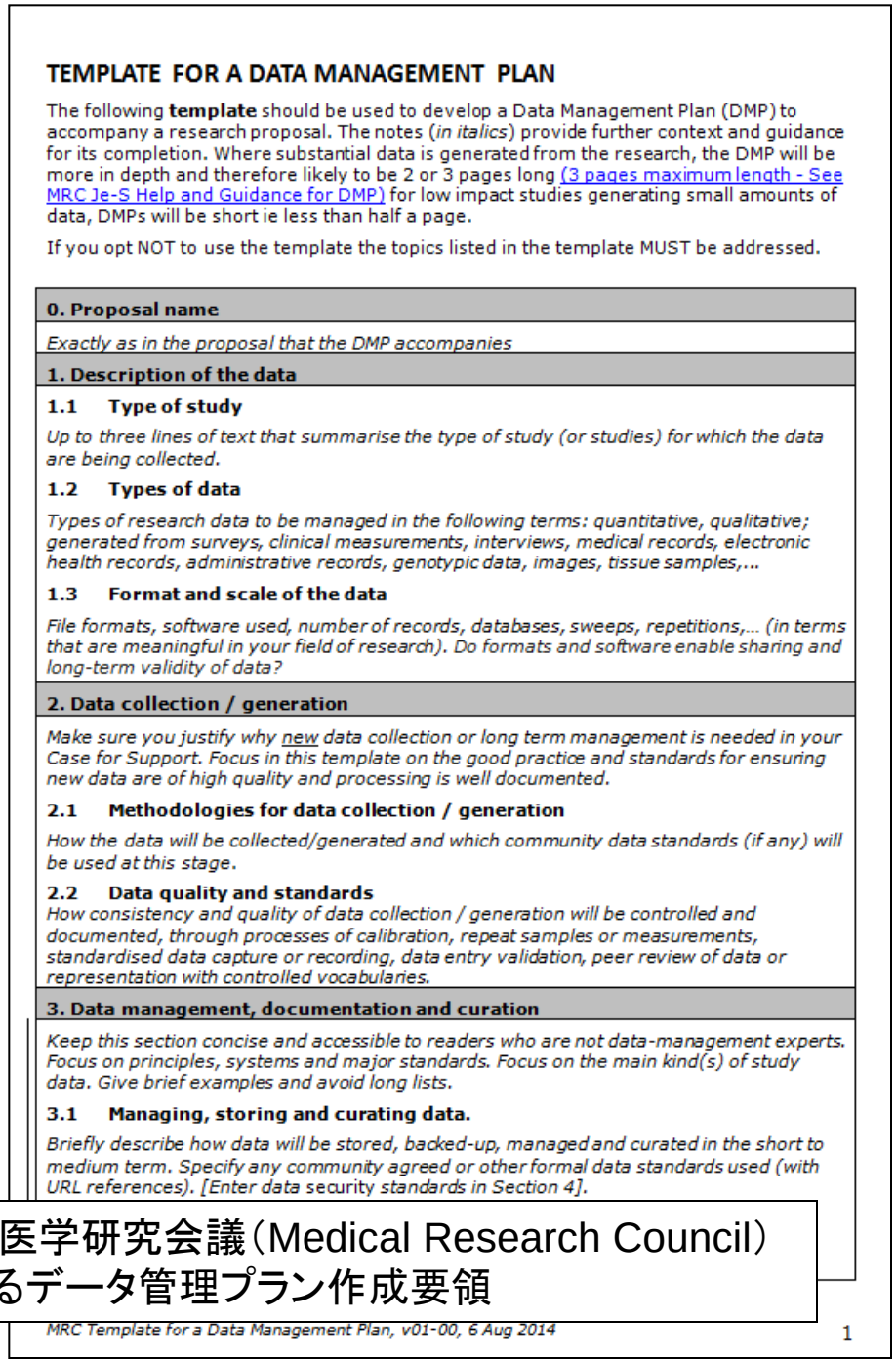
データ管理プラン

DMP: Data Management Plan

- 研究資金助成申請時に研究計画の一部として申請書類中に記入



DMP Online
データ管理プラン作成のための補助ツール（DCC提供）



TEMPLATE FOR A DATA MANAGEMENT PLAN

The following **template** should be used to develop a Data Management Plan (DMP) to accompany a research proposal. The notes (*in italics*) provide further context and guidance for its completion. Where substantial data is generated from the research, the DMP will be more in depth and therefore likely to be 2 or 3 pages long (3 pages maximum length - See MRC Je-S Help and Guidance for DMP) for low impact studies generating small amounts of data, DMPs will be short ie less than half a page.

If you opt NOT to use the template the topics listed in the template MUST be addressed.

0. Proposal name

Exactly as in the proposal that the DMP accompanies

1. Description of the data

1.1 Type of study

Up to three lines of text that summarise the type of study (or studies) for which the data are being collected.

1.2 Types of data

Types of research data to be managed in the following terms: quantitative, qualitative; generated from surveys, clinical measurements, interviews, medical records, electronic health records, administrative records, genotypic data, images, tissue samples,...

1.3 Format and scale of the data

File formats, software used, number of records, databases, sweeps, repetitions,... (in terms that are meaningful in your field of research). Do formats and software enable sharing and long-term validity of data?

2. Data collection / generation

Make sure you justify why new data collection or long term management is needed in your Case for Support. Focus in this template on the good practice and standards for ensuring new data are of high quality and processing is well documented.

2.1 Methodologies for data collection / generation

How the data will be collected/generated and which community data standards (if any) will be used at this stage.

2.2 Data quality and standards

How consistency and quality of data collection / generation will be controlled and documented, through processes of calibration, repeat samples or measurements, standardised data capture or recording, data entry validation, peer review of data or representation with controlled vocabularies.

3. Data management, documentation and curation

Keep this section concise and accessible to readers who are not data-management experts. Focus on principles, systems and major standards. Focus on the main kind(s) of study data. Give brief examples and avoid long lists.

3.1 Managing, storing and curating data.

Briefly describe how data will be stored, backed-up, managed and curated in the short to medium term. Specify any community agreed or other formal data standards used (with URL references). [Enter data security standards in Section 4].

MRC Template for a Data Management Plan, v01-00, 6 Aug 2014

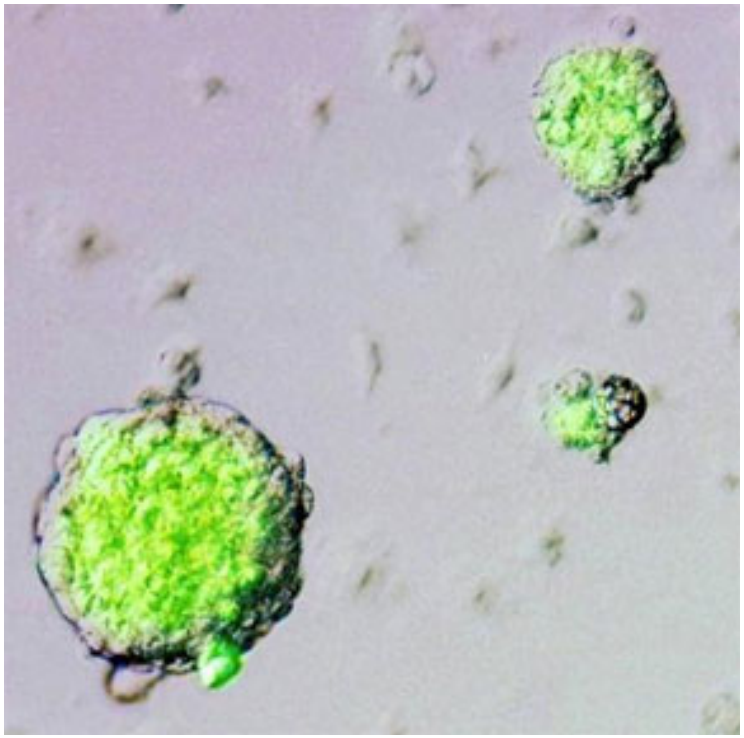
1

英国医学研究会議（Medical Research Council）によるデータ管理プラン作成要領

研究機関における一定期間の研究データの保存・開示

（「研究活動の不正行為への対応のガイドライン」平成26年8月26日文部科学大臣決定）

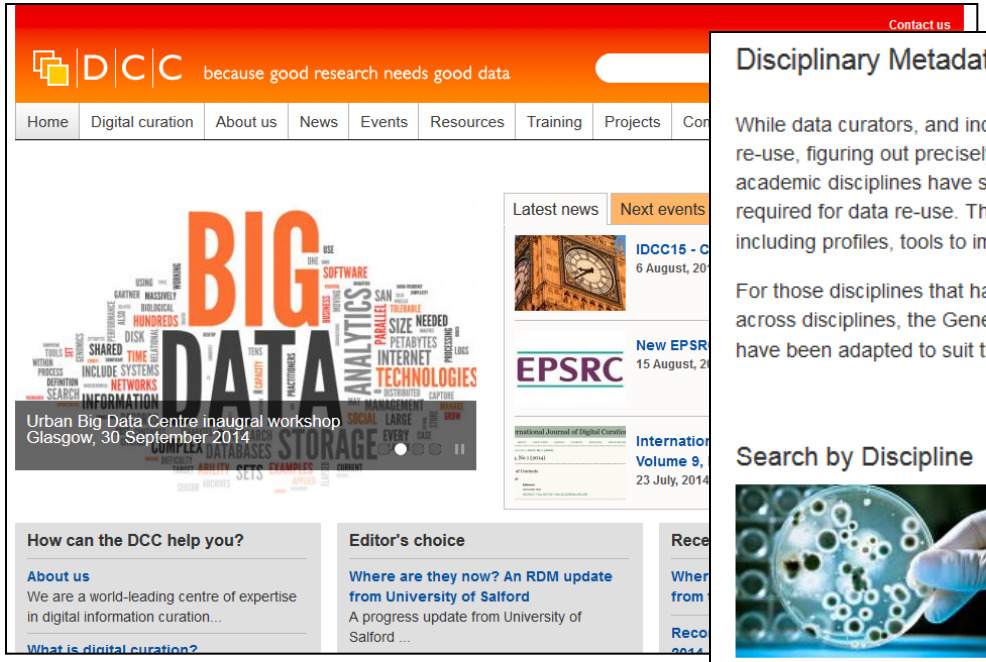
「第１節２研究成果の発表」のとおり、研究成果の発表とは、研究活動によって得られた成果を、客観的で検証可能なデータ・資料を提示しつつ、科学コミュニティに向かって公開し、その内容について吟味・批判を受けることである。したがって、故意による研究データの破棄や不適切な管理による紛失は、責任ある研究行為とは言えず、決して許されない。研究データを一定期間保存し、適切に管理、開示することにより、研究成果の第三者による検証可能性を確保することは、不正行為の抑止や、研究者が万一不正行為の疑いを受けた場合にその自己防衛に資することのみならず、研究成果を広く科学コミュニティの間で共有する上でも有益である。

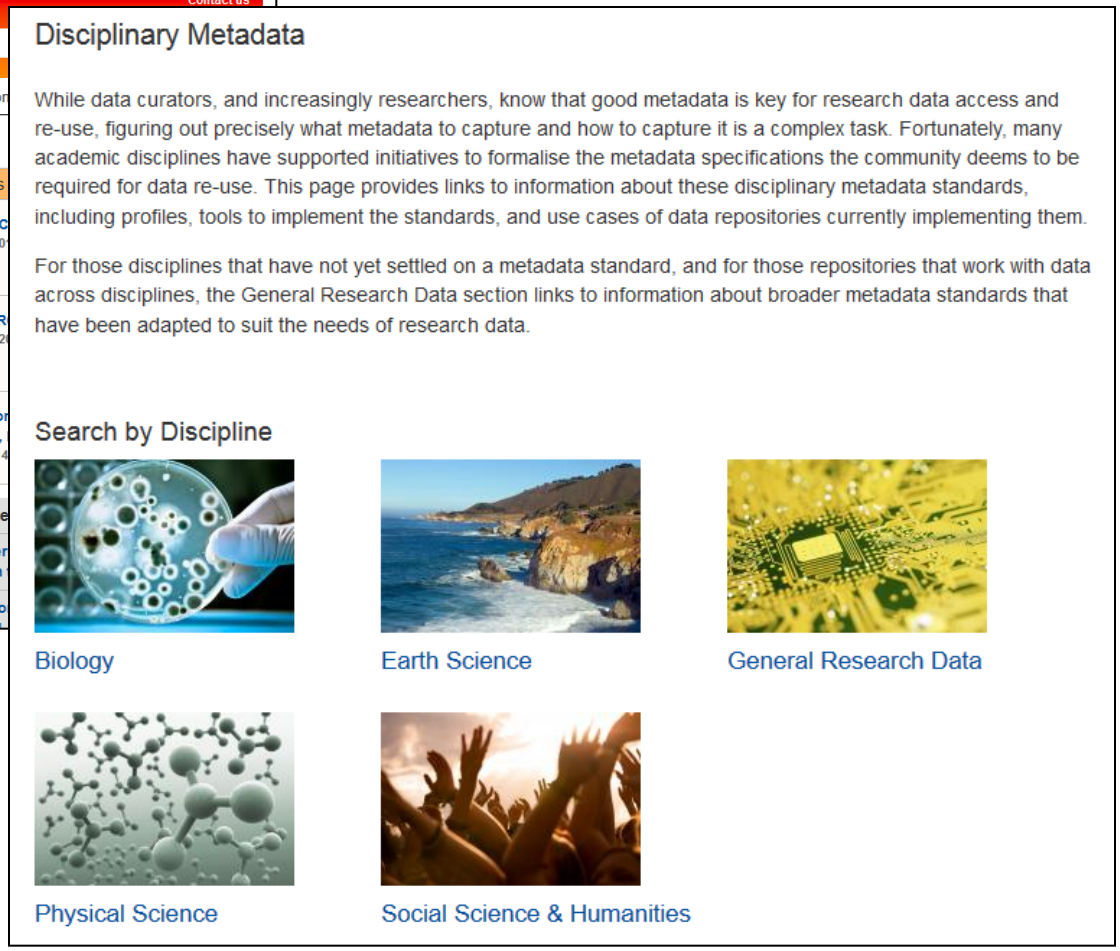


このことから、研究機関において、研究者に対して一定期間研究データを保存し、必要な場合に開示することを義務付ける旨の規程を設け、その適切かつ実効的な運用を行うことが必要である。なお、保存又は開示するべき研究データの具体的な内容やその期間、方法、開示する相手先については、データの性質や研究分野の特性等を踏まえることが適切である。

“データの性質や研究分野の特性”

- Disciplinary Metadata（DCC編）
  http://www.dcc.ac.uk/resources/metadata-standards





科学技術政策局（OSTP）指令

- Increasing Access to the Results of Federally Funded Scientific Research
- 「6ヶ月以内に、論文と科学データへのアクセス拡大のための方針を策定せよ」（平成25年2月・米科学技術政策局）
- 対象：研究予算が年間1億ドル以上の政府機関
- 平成25年6月、出版者陣営と図書館陣営が実現のための提案を相次いで発表
  - CHORUS : Clearing House for the Open Research of the United Status（エルゼビア、米国心理学会等）
  - SHARE : Shared Access Research Ecosystem（米国大学協会、ARL等）
  - ともにPMCのようなセントラルリポジトリモデルは否定

CHORUS SEARCH

US Federal only

Funder name

The CHORUS Search tool is currently in beta.

Results returned identify articles that report on agency-funded research from our growing data set, but these articles may or may not be publicly accessible at this time. In the near future we will introduce a method to clearly identify publicly accessible articles in search results. Thank you for supporting CHORUS.

CHORUS SEARCH

Japan Society for the Pro

JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE

CATEGORY

- Atomic and Molecular Physics, and Optics (116)
- Biochemistry (362)
- Biophysics (73)
- Catalysis (124)
- Cell Biology (112)
- Chemistry(all) (273)
- Colloid and Surface Chemistry (125)
- Condensed Matter Physics (180)
- Ecology, Evolution, Behavior and Systematics (84)
- Electronic, Optical and Magnetic Materials (116)
- Genetics (71)
- Inorganic Chemistry (86)
- Materials Chemistry (155)
- Materials Science(all)

SORT BY: RELEVANCE PUBLICATION YEA

Effect of interlayer interactio
with perpendicular anisotropy

Journal article published 7 May 2015 in Journal of Applied Physics volume 117 issue 17 on page 17B501

Research funded by Japan Society for the Promotion of Science

Authors: Kawamura H., Hayakawa K., Nomiya N., Sugita R.

http://dx.doi.org/10.1063/1.4906200 Actions

Influence of sexual competition and social context on homosexual behavior in adolescent female Japanese macaques

Journal article published Jan 2015 in American Journal of Primatology on pages n/a to n/a

Research funded by American Institute of Bisexuality | Alberta Innovates - Health Solutions | Canadian Network for Research and Innovation in Machining Technology, Natural Sciences and Engineering Research Council of Canada | Leakey Foundation | Japan Society for the Promotion of Science

Authors: Gunst Noëlle, Leca Jean-Baptiste, Vasey Paul L.

http://dx.doi.org/10.1002/ajp.22369 Actions

CONTRAST-ENHANCED ULTRASONOGRAPHIC FINDINGS IN THREE DOGS WITH PANCREATIC INSULINOMA

Journal article published 21 May 2014 in Veterinary Radiology & Ultrasound volume 56 issue 1 on pages 55 to 62

The strength of large commercial publishers does not stop there. We shall meet them again in their attempts to counteract newer forms of publishing that threaten their monopoly. However, even before we do this, I would like to introduce the notion of panoptic vision. Since Michel Foucault's famous book on prisons,[43] we pay more attention to Bentham's panoptic architectural structure which was incorporated into the design of prisons in the early 19th century. Not only is such a structure endowed with a strong surveillance capacity, but, in turn, it induces new kinds of knowledge. It is as if Bacon's aphorism had been translated into stone: knowledge can be power exactly as power can generate knowledge.

That publishers own a panoptic site with regard to site licensing negotiations is obvious. Through dozens of negotiations and almost as many deals with various libraries and consortia, publishers acquire a rich stock of experience, elements of comparisons and so on that amount to occupying the center of a powerful panoptic site. And they make good use of it. But they also own another panoptic site that appears even more important—that provided by usage statistics. Scientometrics specialists would die to lay their hands on such figures; governmental planners also. With usage statistics you move faster and stand closer to the realities of research than with citations. Usage statistics can be elaborated into interesting science indicators of this or that, for example how well a research project is proceeding on a line that might prepare the designing of new drugs or new materials. The strategic possibilities of such knowledge are simply immense. They resemble the marketing possibilities emerging from the study of consumer habits and profiles.

It is somewhat disquieting to note that such powerful tools are being monopolized by private interests and it is also disquieting to imagine that the same private interests can monitor, measure, perhaps predict. They can probably influence investment strategies or national science policies. In short they could develop a secondary market of meta-science studies that would bear great analogies with intelligence gathering. Is that the role of publishers?

Compared to the widely advertised "Echelon"[44] project of global communication surveillance, I find this second panoptic site much more threatening: it deals with cutting edge, fundamental knowledge and publishers are presently unaccountable for it. It is, after all, their database. In short, the movement toward the privatization of databanks of fundamental science that has coincided with the digitization of commercial scientific journals is opening untold new opportunities for the Elseviers of the world. It would be surprising to discover that Elsevier has not thought about such perspectives, and, as we shall see in the

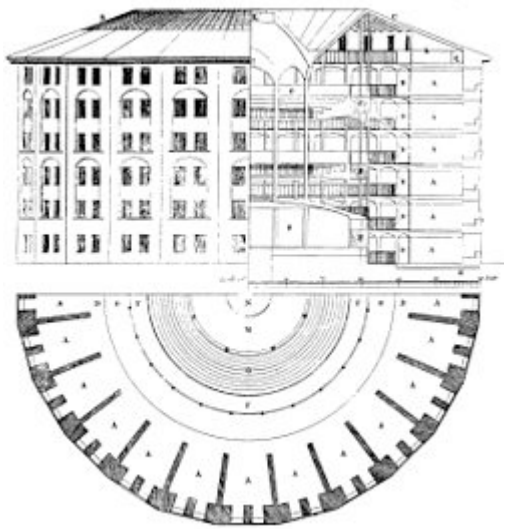
[43] Michel Foucault, *Discipline and Punish: The Birth of the Prison*, Tr. by Alan Sheridan (New York: Pantheon Books, 1977). French original, 1975.
[44] See, for example, <http://www.echelonwatch.org/>, a site organized by the ACLU in the U.S.

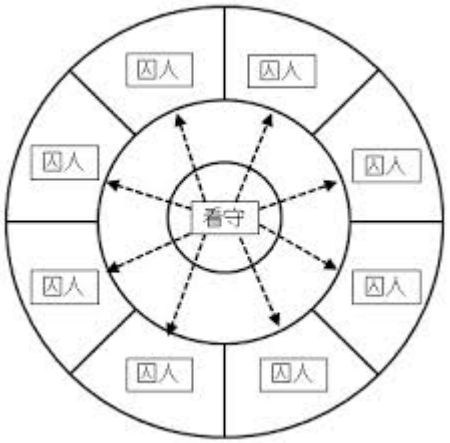
オルデンブルクの長い影

Jean-Claud Guedon. *In Oldenburg's Long Shadow.* ARL, 2001. pp. 48-49.
http://www.arl.org/storage/documents/publications/in-oldenburgs-long-shadow.pdf

- ビッグディールの真の脅威は、出版社がパノプティコンを持つこと
- 出版社は、科学計量学的なデータを占有することができる
- それにより、大学の研究戦略や国の科学政策を操ることも可能となる

パノプティコン（ベンサム）





全展望監視システム

尾城孝一@静岡県大学図書館協議会（2014.12.5）

2014年秋季コミュミティ会議

- コミュニケーションWG
  - SHAREのストーリーをどう組み立てるか。ウェブサイトやマーケティング戦略をどう改善していくか。
- リポジトリWG
  - 研究のアウトプットとは何か。既存のガイドラインを受け入れられるか。
- 技術WG
  - COAR-CASRAIによる国際的OAリポジトリネットワーク構想を含む、国際的な相互運用性への配慮。
- ワークフローWG
  - 研究担当理事をSHARE担当図書館に接続。各々の関心とモチベーションの在処は。対話の創出と継続。

rioxx

the RIOXX metadata profile and guidelines

- RIOXXガイドライン及びアプリケーションプロファイル
  - 機関リポジトリをRCUK OA方針に準拠させる
  - 研究助成機関、研究課題ID
  - RCUK、HEFCEとの協働により、EDINAとChygrove Ltdが開発（JISC助成による）
- Version2.0 ファイナルリリース（2015.1.22）
  - http://rioxx.net/schema/v2.0/rioxx/

rioxx2.0

- rioxxterms:author (One or more / Mandatory)
  - The author of ***the resource*** may be a person, organisation or service, but is most commonly a person. This element **SHOULD** take an optional attribute called *id*, which **MUST** contain an HTTP URI which uniquely identifies the author.
  - Where the author is a person, the **RECOMMENDED** format is to add text in the form Last Name, First Name(s), and to include an ORCID ID, if known, in its HTTP URI form, e.g.

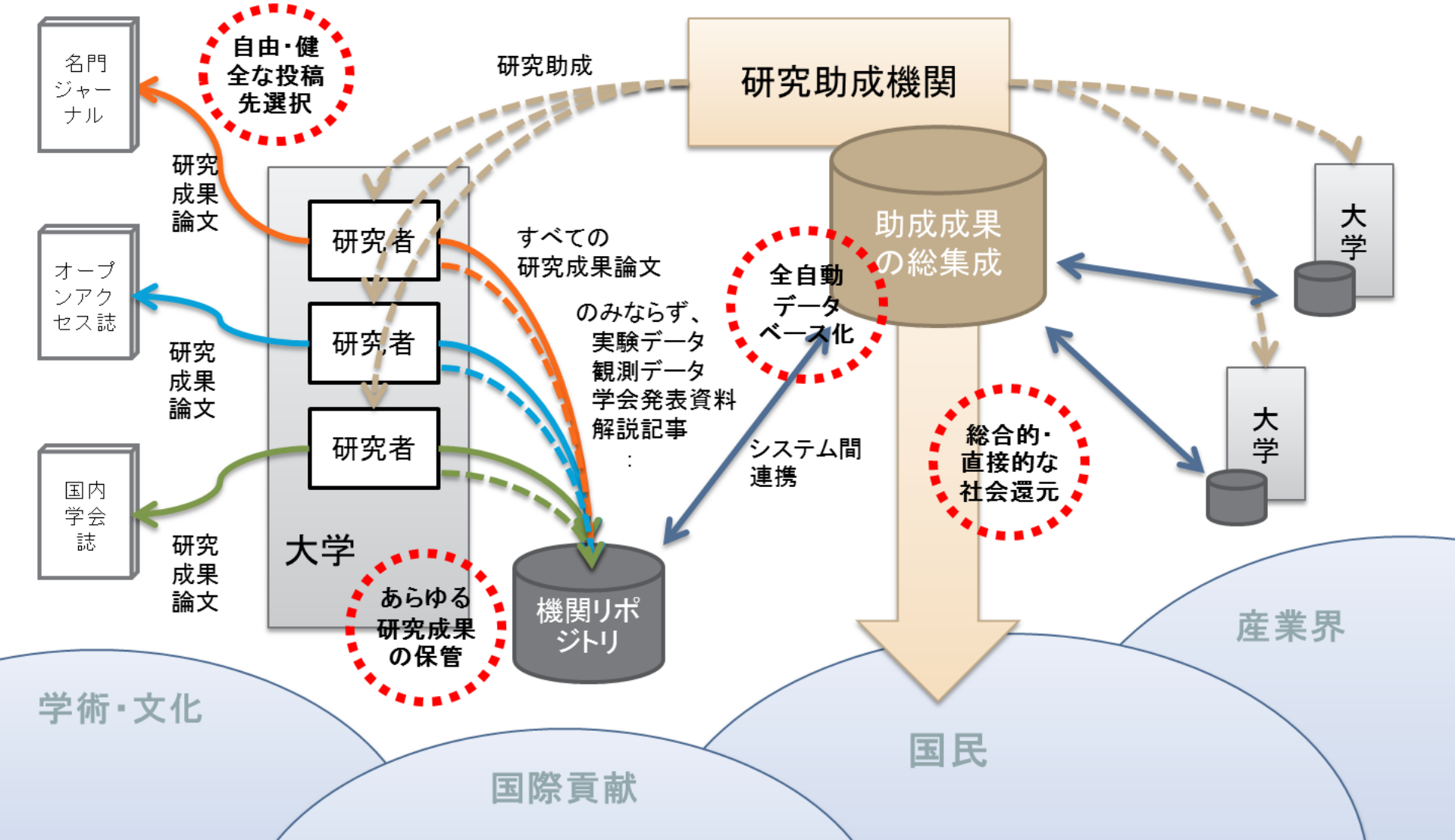
```
<rioxxterms:author
id="http://orcid.org/0000-0002-1395-3092“
>
        Lawson, Gerald
</rioxxterms:author>
```

rioxx2.0

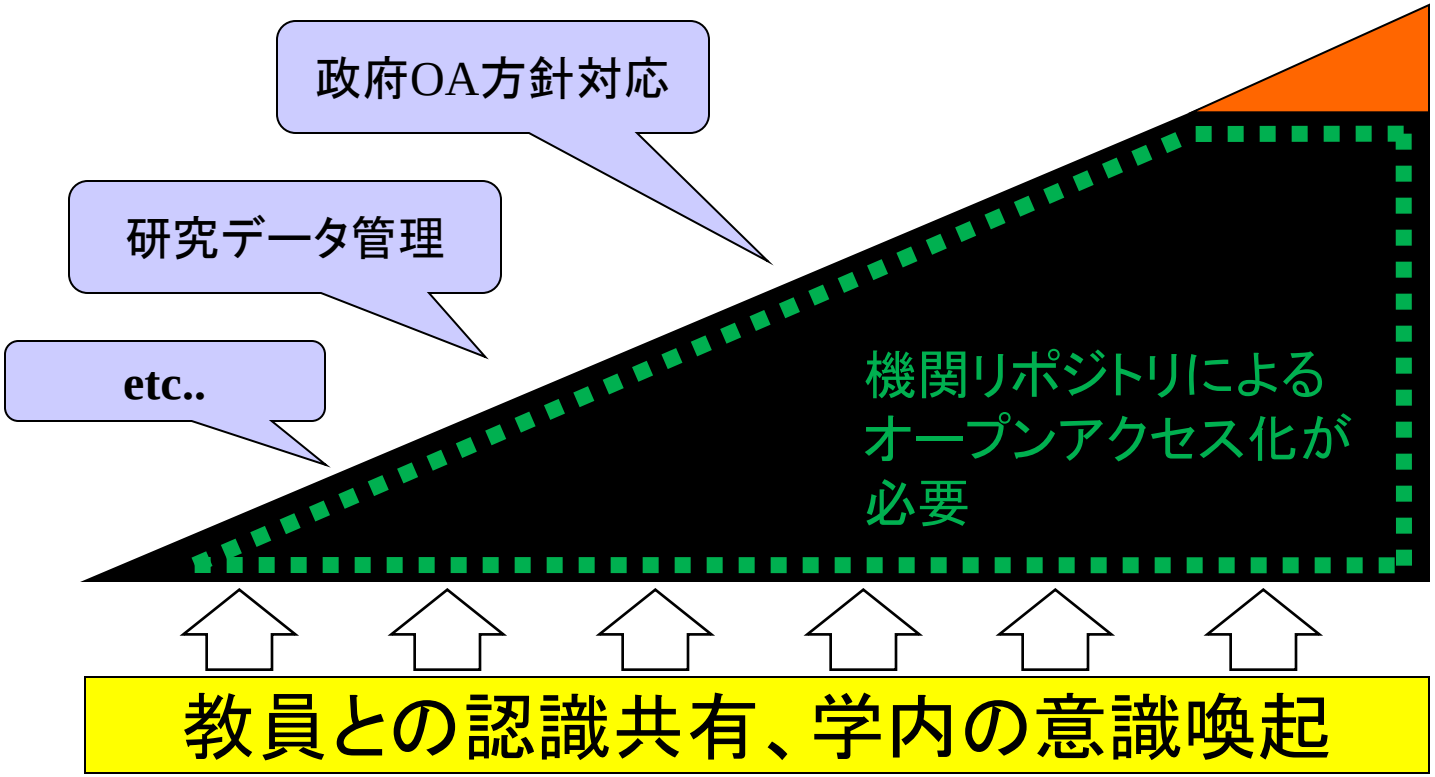
- rioxxterms:project (One or more / Mandatory)
  - This is designed to collect the project ID(s), issued by the funder(s), that relate to ***the resource***, together with the name and/or global identifier for the funder(s).
  - The element **MUST** contain one project ID, an alphanumeric identifier provided by the funder in its original format. In cases where ***the resource*** has been funded internally, an appropriate internal code might be used.
  - The element takes two attributes, *funder_name* and *funder_id*. One or both of *funder_name* and *funder_id* **MUST** be supplied.

```
<rioxxterms:project
funder_name="Engineering and Physical Sciences Research Council“
funder_id=http://isni.org/isni/0000000403948681
>
        EP/K023195/1
</rioxxterms:project>
```

機関リポジトリを基盤とした
オープンアクセスの推進



やることはどっさりある!!
そのために私たちが考えて、決めて、現実化していかなきゃいけないことがどっさりある



なので、一緒に考えて、決めて、現実化していきましょう!!