



## 「海外のオープンアクセスの概況と推進要因」

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1. イントロ
2. 海外のOA化の状況
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3. 海外の事例から読み解くOAを進めるドライビングフォース
4. GreenとGoldの海外の教科書的処方箋のおさらい
5. 研究成果のOAを議論するために



## 2. 海外の状況


### ・ 米、英、独、EU、GRCの動き

(著者の許可を得て一部を抜粋して利用)

**The Impact of Germany and EU Academic Policies and Growing Open Access**

Dr Ralf Schimmer  
Max Planck Digital Library  
Munich, Germany

Science Council of Japan Academic Forum  
"Global Open Access Policies and Japan:  
Implications for Scientific and Academic Collaboration"  
Tokyo, 13<sup>th</sup> March 2014



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## Open Access in the USA

The debate in the U.S. is focusing on the green way to Open Access; the key instrument has been the National Institute of Health (NIH) mandates with the deposit request for PubMed Central; in February 2013 the White House has issued a new directive with still open results.

### 1<sup>st</sup> NIH Open Access Mandate

Voluntary deposit in PubMedCentral

### 2<sup>nd</sup> NIH Open Access Mandate

Mandatory deposit in PubMedCentral

・ “医薬生物系”  
のパブリックア  
クセスから“科  
学へ”拡張  
・ 専用プラット  
フォーム(PMC)

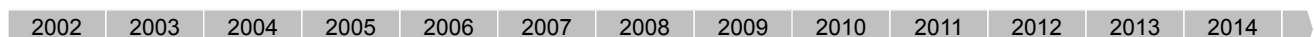
vs.

### Legislative attempts in U.S. Congress to **remove** NIH mandate (all failed)

*Fair Copyright in Research Works Act (2006, 2008); Research Works Act (2011)*

### Legislative attempts in U.S. Congress to **extend** NIH mandate (all failed)

*Fed. Res. Public Access Act (2006; 2010); Fair Access to Science & Technology Res. Act (2013)*



Feb

Today

### Reactions

- NIH proposes to expand PubMed Central (“PubFed Central”)
- Universities propose SHARE: Scale up the existing institutional repositories to contain all research articles based on federal funding.
- Publishers initiative CHORUS (Clearinghouse for the Open Research of the US): portal to journal articles resulting from agency funding

**White House Office of Science and Technology Policy:** directive to federal agencies to develop public access plans within six months

➤ Decision from White House still pending

## Open Access in the UK



Key elements of the Open Access debate in England are the Open Access Mandate of the Wellcome Trust since 2006, the policy statements of the Research Councils UK and the Finch Report published in June 2012.

### Open Access Mandate for Wellcome Trust funded papers

- Wellcome TrustがNIHと歩調を合わせる
- Finch Report Goldより

**RCUK & universities:  
implementing the Finch  
recommendations**

**JISC  
APC  
Pilot**

One-year project to explore the handling of large-scale publication cost payments

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Jun Jul

Today

**Finch Report**  
Addressing the question of how to expand access to research publications in the UK: publications costs shall be covered for research results to be published gold or hybrid

Support expressed by British Government and Research Councils UK to all the conclusions in the report; appropriation of funding

## Open Access in Germany



Many green and gold Open Access activities are being organized, with policy and funding support from the German Research Foundation; recently more pronounced leaning towards Gold OA publishing; no major role of German government so far.

- ベルリン宣言
- APC補助

**OA Working Group of Ger. Science Org.**

Key actor in Germany

**Priority Initiative "Digital Information" of Alliance of German Science Org. (phase 1)**

Core activities: Open Access, Licensing, Ntl. Hosting, Research Data, VRE, Legal Issues

**Priority Initiative "Digital Information" (phase 2)**

Additional core activity: Focus group on Gold OA

**Funding program of the German Research Foundation**

To help German universities to establish an OA Gold publication budget (25+ universities funded so far)

2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

Oct

**Berlin Declaration on Open Access** introduced by Max Planck Society (currently 472 signatories from around the world; annual follow-up conferences on all continents)

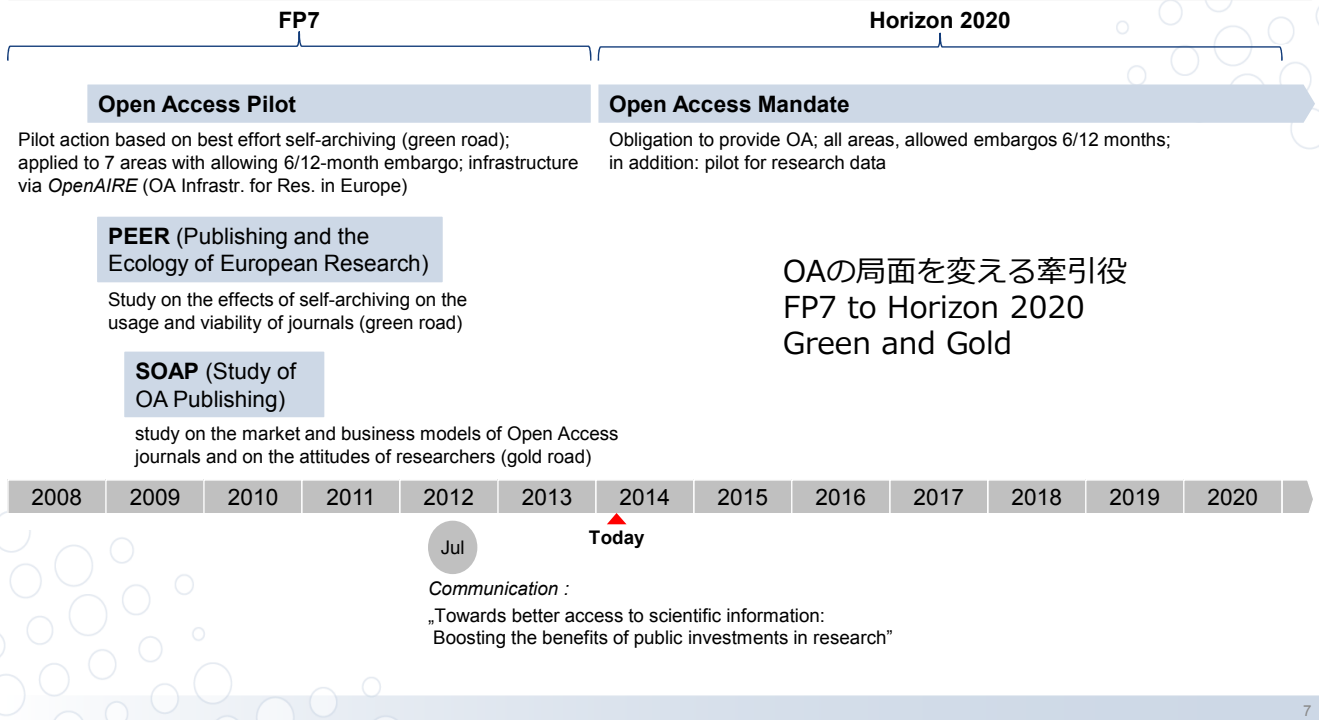
Nov Today

**10<sup>th</sup> Anniversary Conference** of the Berlin Declaration with new mission statement



# Open Access in the European Union

The FP7 framework (2007-2013) collected evidence and created an observatory on Open Access; the new funding program Horizon 2020 (2014-2020) is establishing a firm OA mandate for all EU funded research; the member states are called upon to develop similar directives.



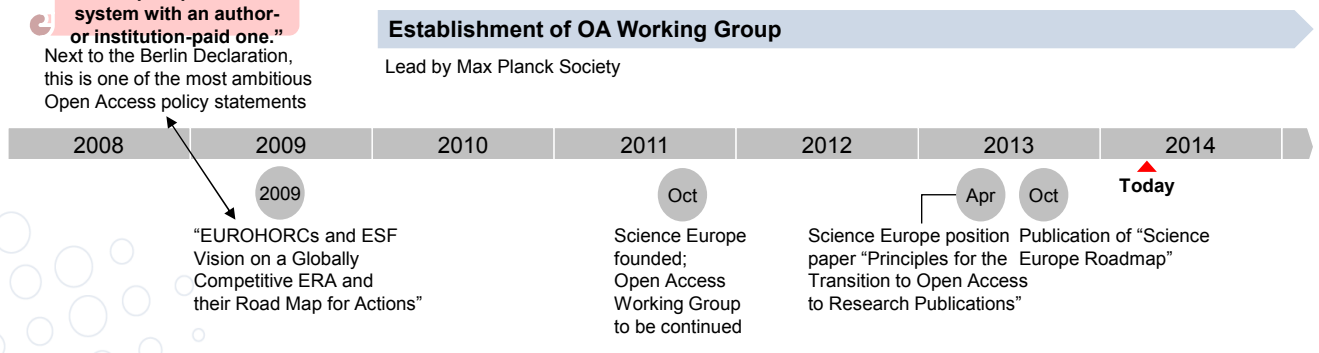
# Science Europe on Open Access

Founded in 2011, Science Europe is an association of European Research Funding Organizations (RFO) and Research Performing Organizations (RPO), based in Brussels. As successor to the former European Heads of Research Councils (EUROHORCs), Science Europe is one of the most pronounced supporter of Open Access and wants it to become the "standard mode of publication."

**"The aim is a system of scientific publications in which free access to all (published) scientific information is guaranteed. This involves a move toward Full Open Access. Ultimately, this means replacing the present reader-paid publication system with an author- or institution-paid one."**

Next to the Berlin Declaration, this is one of the most ambitious Open Access policy statements

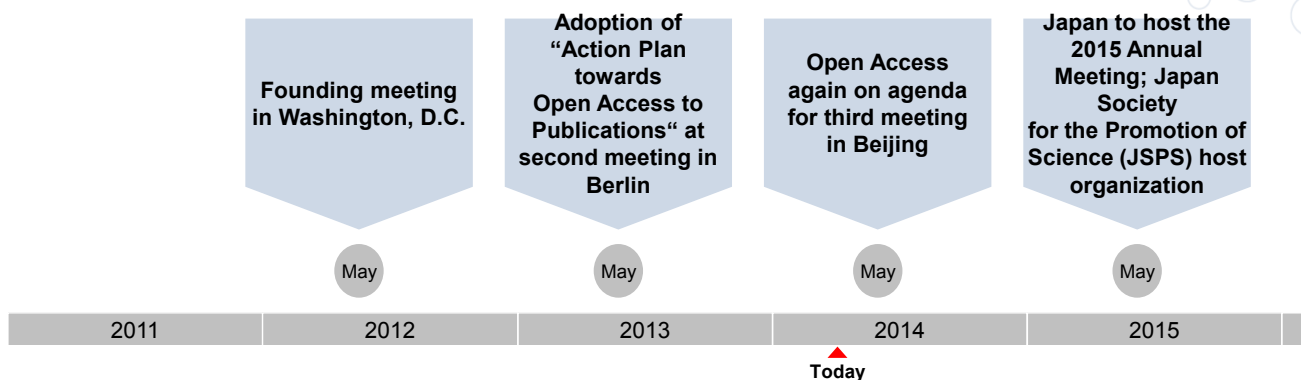
EUの助成団体の集まりによる活動



## Global Research Council

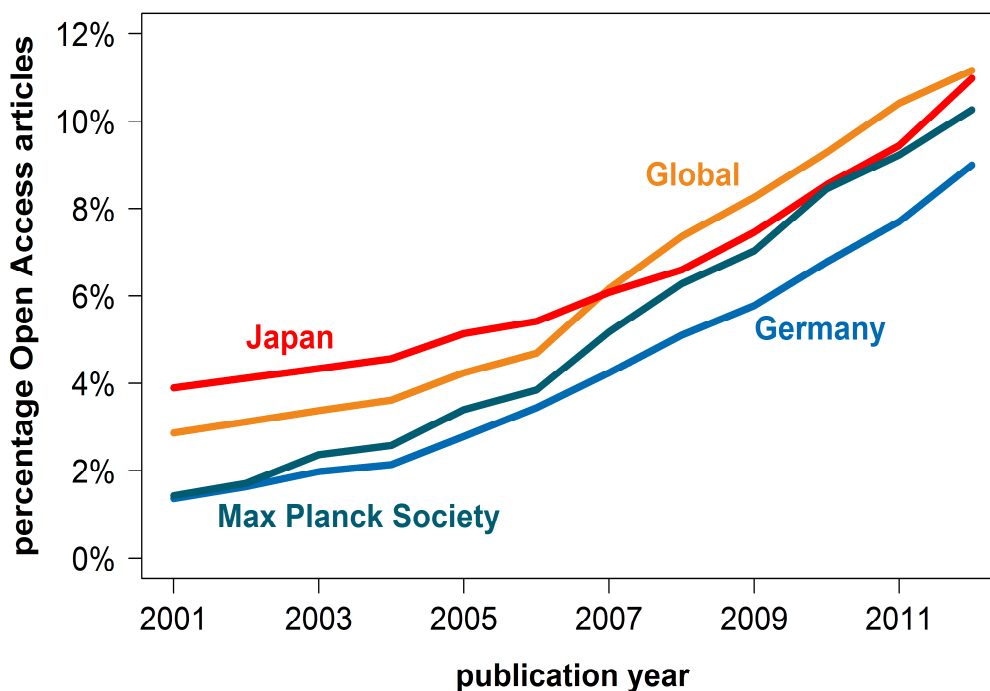
Convening for the first time in 2012, the Global Research Council has immediately adopted Open Access as one of its key areas of activity and adopted an action plan for its members in 2013.

アクションプランの策定が日本の研究者にも大きな影響を与えた

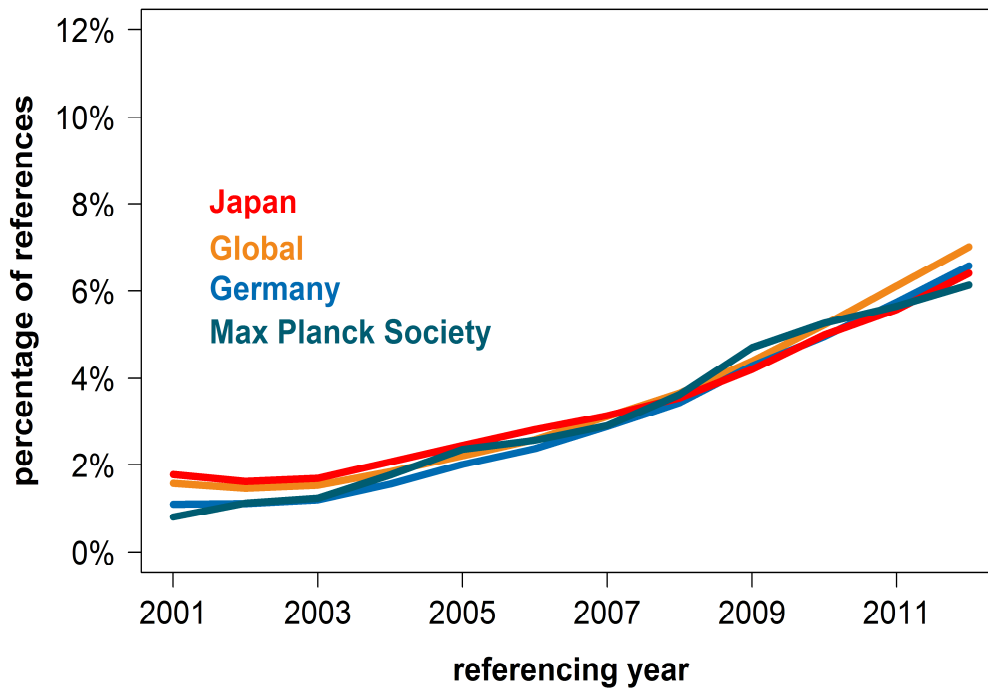


The OA growth rate is significantly steeper than the overall article output rate. Japan, Germany and MPG are all following the global trend.

## Open Access Gold share in Web of Science articles and reviews



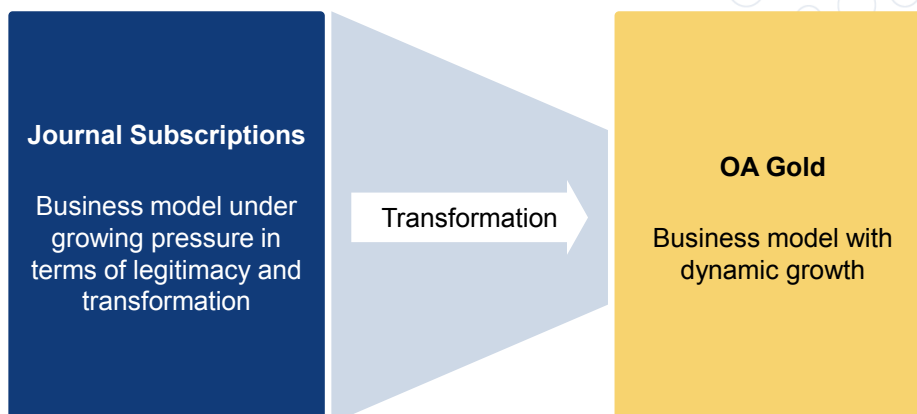
## Open Access Gold share in Web of Science references



Source: MPDL analysis

New realities emerge and put pressure on the existing ones. This also will bring further changes to the roles of research institutions, libraries and publishers.

## The current existence of two realities with growing pressures toward OA



At the moment two distinct spheres of activity and funding but with growing pressures:

- transformation
- re-organization
- re-design of financial flows

**Providing new context –**  
for research institutions,  
publishers & libraries



## 3. 海外の事例から読み解くOAを進めるドライビングフォース

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### シリアルクライシスを越えて

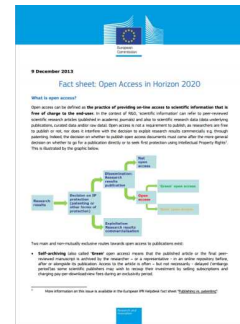
- かつては、(今も) 購読費高騰、アクセス不平等問題の解消 (前回の討議の中心)
  - 17世紀から続く情報流通の枠組みが色濃い
  - PDF : 電子「化」ジャーナル
- 今はイノベーション政策および、次世代科学研究を実現する基盤インフラとしての観点が加わる

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# OAの潜在的便益（政策的観点）



- 研究を加速し成果を見つけやすくすることで研究開発投資の費用対効果を上げる
- 同じ研究を繰り返すこと避け、研究開発コストを抑える
- 境界領域や多領域にまたがる研究の機会を増やし、多分野の協調を促す
- 研究結果の商業化を早く広い観点から行い、公共研究開発投資の効果を上げ、科学情報を基にした新しい産業を生み出す



Fact sheet: Open Access in Horizon 2020

[https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/FactSheet\\_Open\\_Access.pdf](https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/FactSheet_Open_Access.pdf)<sup>15</sup>

# 義務化政策としてのOA

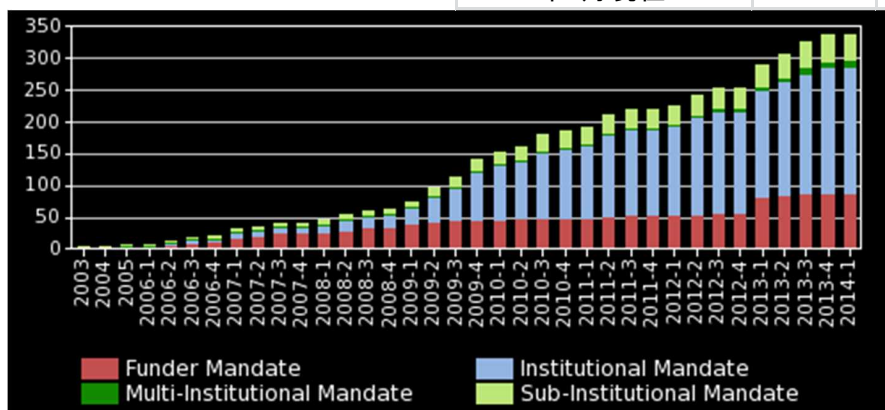


- 欧米以外を含む多くの国、機関等でOA義務化プログラムが策定(49カ国)

OA義務化ポリシー数

	実施	計画中
助成機関	85	12
研究機関	248	15
学位	108	-
合計	441	27

\*2014年1月現在







- 研究成果の共有と再利用が促すイノベーション
  - 漸次的：
    - 科学者の共同研究を促進し、境界領域への参入が容易に
  - 非連続的：
    - Data Science
      - 紙と物流の情報流通では行えなかった新しいScience
    - Open Science (Citizen Science)
      - Scienceの敷居が低くなる
      - 桁違いの共同研究（数万～数十万）



## 4. GREENとGOLDの海外の処方箋

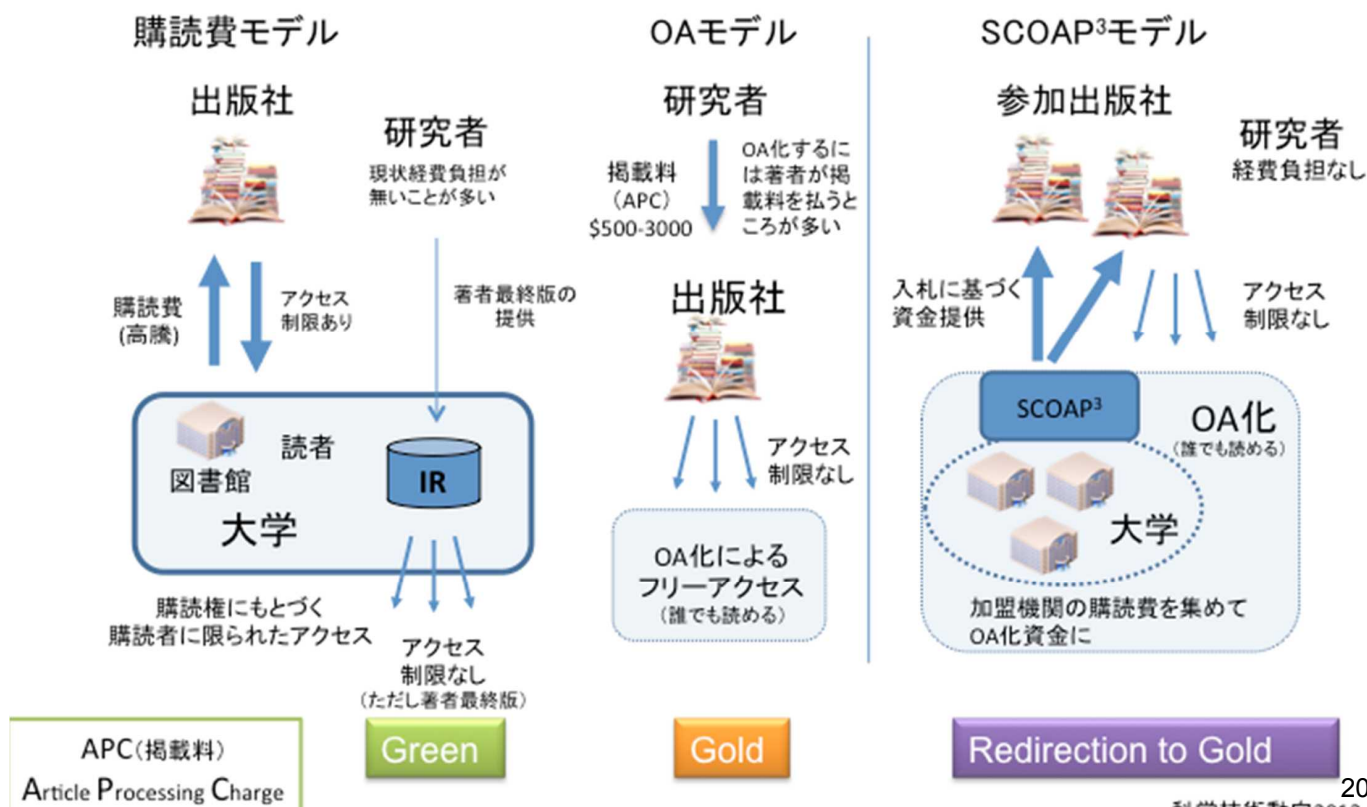
# OA化の手段（研究論文）



- **Green Route** OAジャーナル Alternative Route
  - 原則著者の最終版原稿を利用
    - セルフアーカイブ(Self Archiving)
    - 大学機関レポジトリ掲載 (IR)
    - 政府系レポジトリ掲載 (Pub Med Central)
  - 購読費モデルジャーナルへのアクセスの別ルートを提供
- **Golden Route** OA ジャーナル Full Open Access
  - ジャーナル自身のOA化
    - 掲載料APCモデル（著者支払いモデル） \$500-\$2500
    - 寄付モデル、機関運営費モデル（STAM、IR上での紀要公開）
  - 新刊ジャーナルに多い (PLoS, Scientific Reportなど)
- **部分的OA化**
  - 購読費ジャーナルにOAオプションを付加し、ハイブリッド化
  - 既存のジャーナルの多くが提供
- **期間（エンバゴ）の有無が組み合わさることがある**
  - Delayed OA

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## 購読費モデル、OAモデルと購読費リダイレクション



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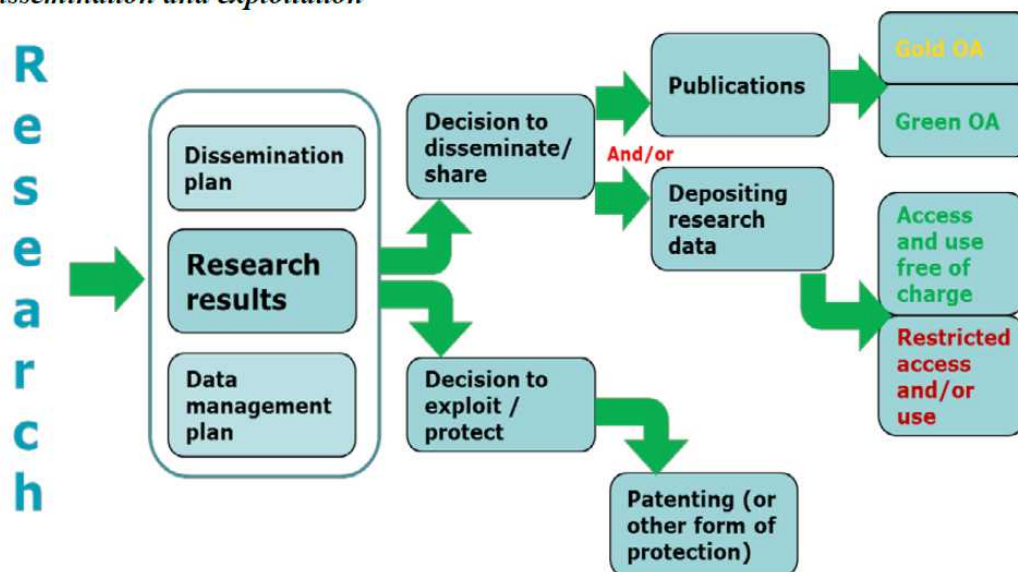
## 5. 研究成果のOAを議論するために

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### Overlook a little bit



*Graph: Open access to scientific publication and research data in the wider context of dissemination and exploitation*





- 科学技術・学術研究システムの将来を見据え“研究成果のOA”を進めることが日本発の研究力（および情報発信力）をどう強化するのか  
(GRC2015を日本としてどう迎えるか)

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## まとめ



- 海外の状況（米、英、独、EU、GRC）からOAに関しては、ジャーナル購読費問題を越えた観点からProactiveに動いていることが分かる。
- Gold OA, Green OAに関しては、ビジネスモデルを含む運営手段に一定の落ち着きが見られているが、ジャーナル購読費問題を根本的に解決するというよりは対症療法的である。
- 17世紀から続く科学技術・学術情報流通の枠組みを越えた、新しい科学技術・学術システムから生まれるイノベーションを見据え、公的資金を得た“研究成果”のOAを考える必要がある。

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