



Open access in a broader European policy context

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Content

Open access in a Science 2.0. context

**Open Access Policy: The ERA and the
Communication/Recommendation on
scientific information**

The international landscape

Conclusions



Definition

Science 2.0 is a comprehensive approach defining the unfolding systemic change in the modern science and research system.

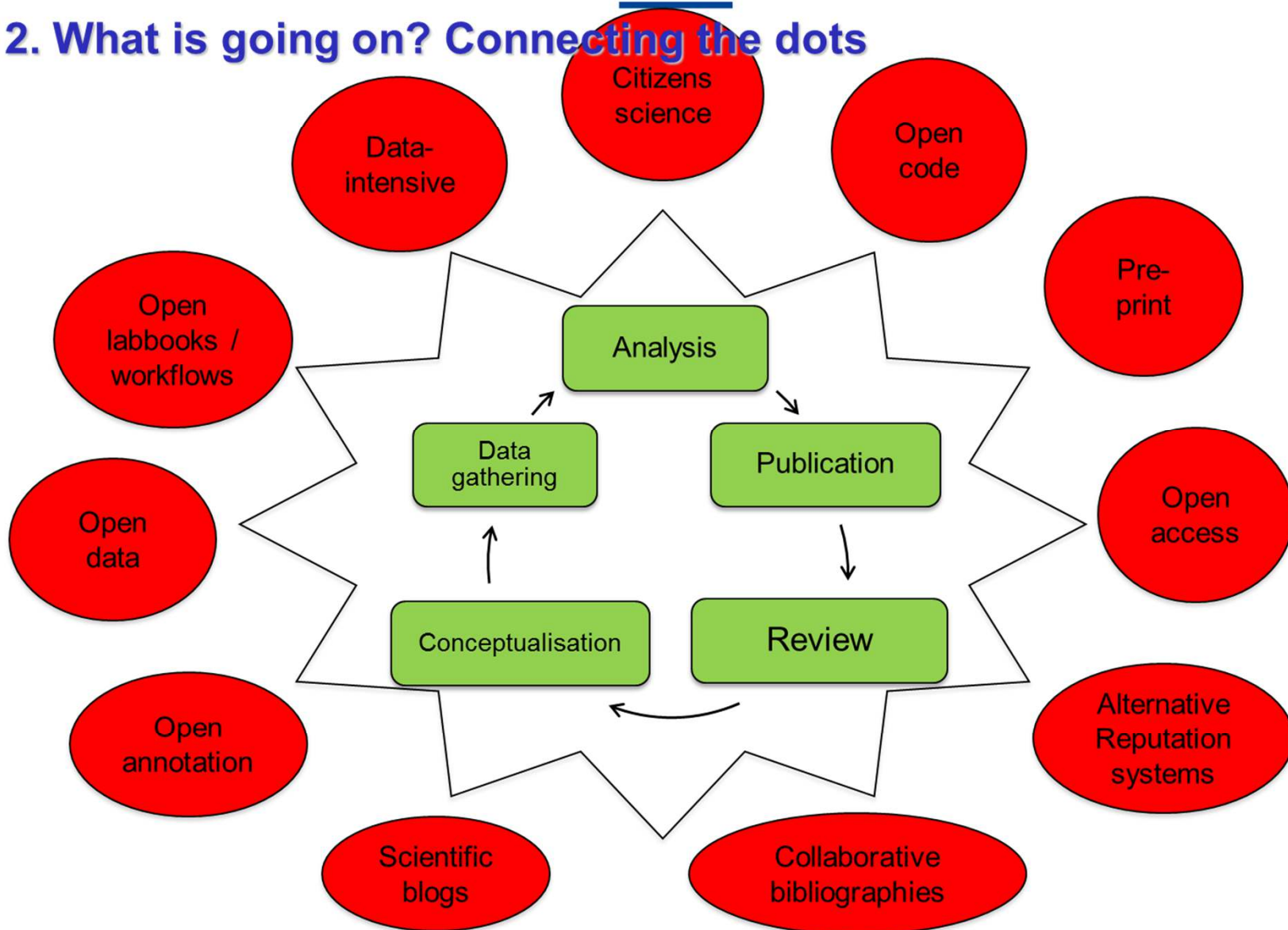
It captures the on-going developments in the modus operandi of doing research and organising science and its impact on related policies.

Science 2.0 is enabled by digital technologies and driven by the globalisation and growth of the scientific community and the need to address the Grand Challenges of our times.



European
Commission

2. What is going on? Connecting the dots



Science 2.0

impacts the entire research cycle, from the inception of research to its publication, as well as the way this cycle is organised.

will affect the institutions of science and it potentially has consequences for the organisation of science.

will change how the quality and impact of research is evaluated. It possibly affects the assessment of scientific integrity and risk.

is gaining rapidly momentum. However, the extent of the systemic changes is still unclear.



Potential policy implications

All science will be global

Will traditional publishers remain as important players? New gatekeepers (intermediaries) will emerge.

New ways to determine reputation, CV's?

More Creative Commons (already 400 million CC licenses)?

More citizen (as scientist) science?

Faster science (Google scholar...), beta science a valid status?

New metrics needed?

New ways to fund research? Evaluate projects?

The "Scientific Powers That Be", disappear or adapt?





What do we understand by OA?

OA = online access at no charge to the user

- to peer-reviewed scientific publications
- to research data

Two main OA publishing business models

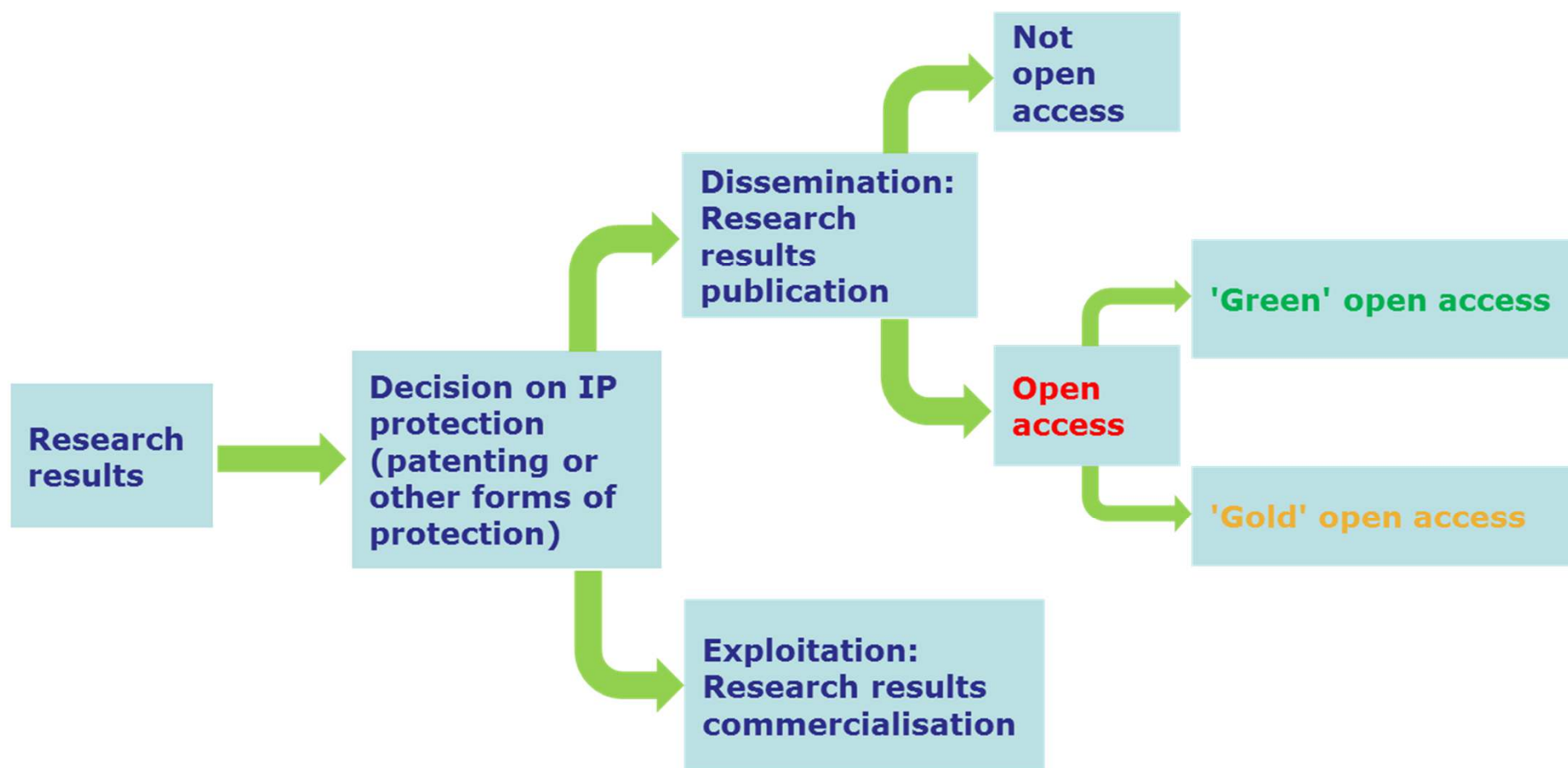
- **Self-archiving**: deposit of manuscripts & **immediate/delayed OA** provided by author ("Green OA")
- **OA publishing**: costs covered & **immediate OA** provided by publisher ("Gold OA")
e.g. 'Author-pay' model (APC) and others, e.g. sponsorship

What OA is NOT

- Not an obligation to publish
- Not at odds with patenting
- OA publications go the same peer review process



Dissemination and exploitation



The European Commission is a...

Policy maker

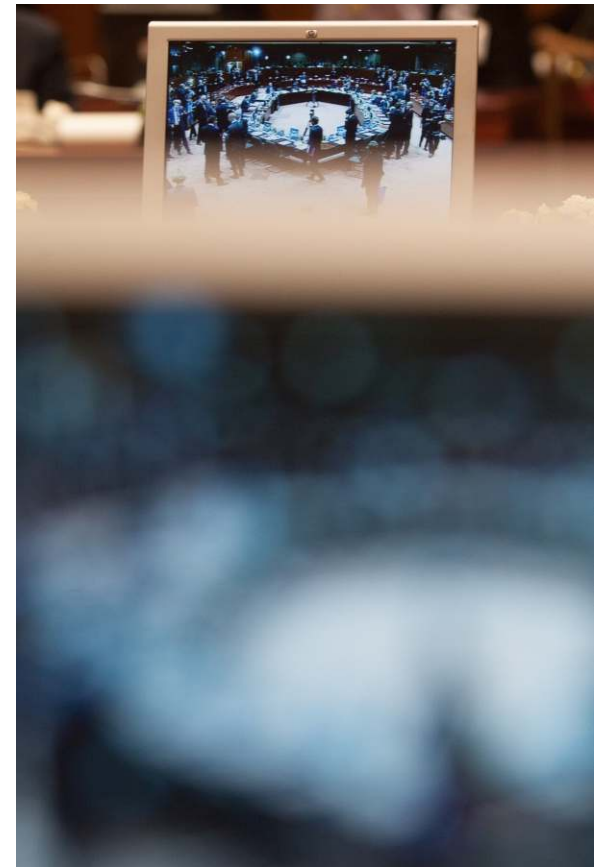
- It proposes EU legislation & legislates with other EU institutions
- It invites Member States to act

Funding agency

- It sets its own access and dissemination rules for EC-funded research

Capacity builder

- It funds projects that support EC/EU policy





The Commission objective

optimise the impact of publicly-funded scientific research

- At European level (FP7 & Horizon 2020)
- At Member State level

One way to get there: open access

Expected benefits:

- Better and more efficient science □ *Science 2.0*
- Economic growth *Innovation Union*
- Broader, faster, more transparent and equal access for the benefit of researchers, industry and citizens *Responsible Research and Innovation*

... in the European Research Area and beyond



Two Commissioners on open access



Vice-President Neelie Kroes **Digital Agenda**

Digital single market/Digital agenda



Commissioner **Máire Geoghegan-Quinn** **Research & Innovation**

Horizon 2020

*European Research Area (ERA) &
Innovation Union*

Three key documents (16.07.2012)

Communication 'A reinforced European Research Area partnership for excellence and growth'

Communication 'Towards better access to scientific information: boosting the benefits of public investments in research'

Recommendation on access to and preservation of scientific information





Communication 'ERA'

The ERA is based on the internal market in which researchers, scientific knowledge and technology circulate freely

Five priority areas:

- More effective national research systems
- Optimal transnational cooperation and competition
- An open labour market for researchers
- Gender equality and gender mainstreaming in research
- **Optimal circulation, access to and transfer of scientific knowledge**

Joint statement by stakeholders organisations

**Formal commitments and activities on open access by:
EARTO, NordForsk, Science Europe, LERU and EUA (+CESAR)**





Communication 'ERA'

MS are invited to coordinate their policies on access to and preservation of scientific information

▮ Recommendation on access to and preservation of scientific information (C(2012)4890).

SHO are invited to adopt and implement open access measures for publications and data resulting from publicly funded research

▮ Signed Memorandum of Understanding with LERU, EARTO, EUA, NORDFORSK and Unilateral Statement by Science Europe

The Commission "will adopt establish open access to scientific publications as a general principle for all EU funded research projects in Horizon 2020. For research data the EC will develop a flexible approach that takes into account different scientific areas and business related interests". "The Commission will continue to fund projects related to open access."

▮ Communication 'Towards better access to scientific information', COM(2012)401





2. Communication 'Towards better access to scientific information'

Why does better access matter for Europe?

The Commission's vision

Where do we stand?

- Access to publication and data, preservation, international context

What are the barriers to change?

- Transition to OA to publications, the case of data, long-term preservation

Action at European level

- What has the Commission done so far, what are the next steps (Horizon 2020)





3. Recommendation to Member States

Member States to define policies for and implement:

- OA to publications
- OA to research data
- Preservation and re-use of scientific information
- E-infrastructures

Consistency between H2020 policy and MS policy

Structured co-ordination of MS (National Points of Reference) at EU-level and reporting





Open access in the ERA (2013/2014)

(i) Member States (MS)

- ✓ ERA Progress Report (2013): progress among MS "gradual yet visible" (legal and administrative) but efforts need to continue.
- ✓ For interaction with the EC and among each other MS have nominated a national Point of Reference (NPR)
 - ✓ First meeting of NPRs held in 2013
- ✓ Commissioner Geoghegan-Quinn participated in a Competitiveness Council debate on open access
- ✓ Interest from ERAC – taskforce on "open access and innovation"

(ii) Stakeholder Organisations (SHO)

- ✓ Significant interest in the subject, have organised a variety of events, many of them with Commission (e.g. LERU Conference of 2012, Nordforsk Open Data Workshop, COST workshop, a the Science Europe ERA Europe High Level Workshop).
- ✓ Open access also a point for discussion in the ERA High Level Stakeholder Platform and the associated doers network.
- ✓ ERA Progress Report (2013): Significant number of Research Funders and Research Performing Organisations support OA on the national level



Open access in the ERA (2013/2014)

(iii) European Commission

- ✓ Open access to publications pilot in FP7
- ✓ Horizon 2020: open access to publications an underlying principle (obligatory)
- ✓ Horizon 2020: a limited pilot on open access to research data (opt-in/opt out principle)
- ✓ Running support actions: projects such as RECODE, FOSTER, Pasteur4OA, OpenAIRE
- ✓ Calls in SWAFS and e-Infra WP





OA in Horizon 2020: where to look

- Regulation establishing Horizon 2020 (article 18)
- Specific Programme (preamble 1.3)
- Rules for Participation (article 43)
- Work Programme 2014-15 (Introduction 1.5 and relevant areas)
- Model Grant Agreement (articles 6.2.D.3, 29.2 and 29.3)
- Annotated Model Grant Agreement (reference to Guidelines below)
- Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020
- Guidelines on Data Management in Horizon 2020
- Source for all documents: Participant Portal (reference documents)
<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

The international landscape (1/3)

Study to measure the growth of OA

- Wide sample of 1 million records for in-depth study of between 2008 and 2013
- Focus on ERA, Brazil, Canada, Japan and USA
- Global proportion higher than previously assumed:
 - 55% of those published in 2012 are now free (adjusted for precision and recall)
 - Quantity of Gold OA papers increasing by 18% per year
 - Quantity of Green OA papers increasing by 8.8% per year
 - Quantity of Other OA papers increasing by 8.8% per year
- OA papers were between 26% and 64% more cited on average
- Backfilling of papers is really important: about 700,000 papers from 1996-2011 became freely available between April 2013 and April 2014, the same quantity as those published 2013



The international landscape (2/3)

Study to measure the growth of OA

- OA availability varies among disciplines: 'tipping point' passed in Biology, Biomedical Research, Mathematics & Statistics and in General Science & Technology. Least open access in SSH, applied sciences, engineering and technology
- The majority of 48 major science funders considers both Gold and Green OA acceptable. More than 75% accepted embargo periods of 6-12 months
- Policies for OA to data not as well developed but increasing



The international landscape (3/3)

**Global Research Council
(GRC)**

G8 Science

OECD

'Berlin' conferences on OA

Research Data Alliance

Etc.



Some milestones

2006	<ul style="list-style-type: none">• EC-funded Study on the scientific publication market in Europe
2007	<ul style="list-style-type: none">• EC Communication on scientific information• Council Conclusions on scientific information in the digital age• FP7 (OA publishing costs/Gold OA)
2008	<ul style="list-style-type: none">• Open Access Pilot in FP7
2009	<ul style="list-style-type: none">• OpenAire platform launched to give EU-wide access to publications (and since Dec. 2011: research data)• EC Communication on ICT infrastructures for e-Science
2012	<ul style="list-style-type: none">• Surveys: OA in FP7, State of play in Member States• EC Communication on ERA• Scientific information package: EC Communication and Recommendation on scientific information
2013	<ul style="list-style-type: none">• Public hearing on open research data• Open access in Horizon 2020• Open access in the ERA

In summary...

- Open access as part of a changing scientific system (Science 2.0)
- Open access as a means to improve knowledge circulation and provide value for the taxpayers' money
- Horizon 2020 ambitious yet pragmatic on aspects of open access
 - Open access to publications mandatory (green or gold)
 - Limited pilot for open access to research data (opt-in/opt out principle)
- Support from/for H2020: work programmes e-Infrastructure & Science with and for Society
- Open access must be effective, affordable, competitive and sustainable for researchers and innovative businesses



We welcome your input

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Links

EC OA website

http://ec.europa.eu/research/science-society/open_access

European Research Area (ERA)

http://ec.europa.eu/research/era/index_en.htm

Innovation Union

<http://ec.europa.eu/research/innovation-union/>

Study to measure growth of OA

http://europa.eu/rapid/press-release_IP-13-786_en.htm

H2020 guidance

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

