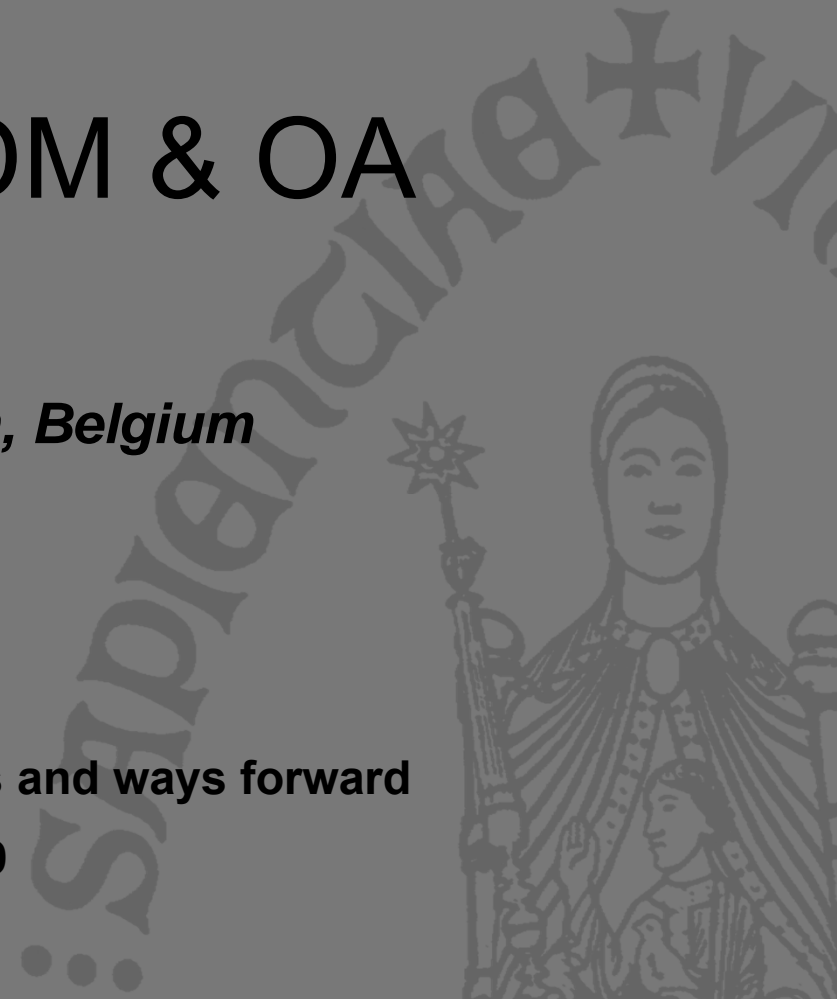


Relevant issues of IP, TDM & OA

Prof. Marie-Christine Janssens
CiTiP (Centre for IT & IP Law) KU Leuven, Belgium

Doctoral education in the 21st Century: aims, challenges and ways forward

University of Minho – 22 October 2019

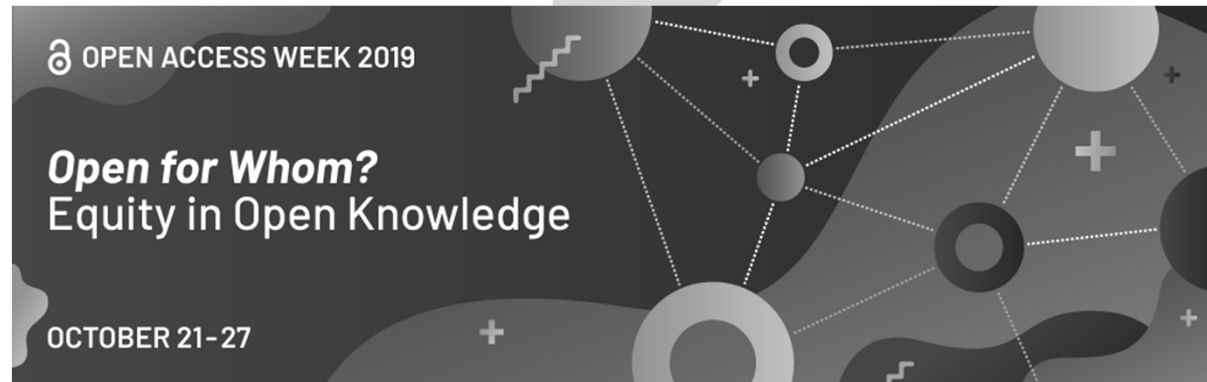


Outline

**Intellectual
Property**

**Text & data
mining**

**Open
Access**





Grant of exclusive
rights (v principle
of freedom of
competition)

relating to

creations of the mind

Use of, names
and images in
commerce
(trademarks).

Inventions;
designs,
copyrighted
works



**Exclusive
rights**



Exceptions

- e.g. art. 75
*Code of
Copyright and
Related Rights*

Code of Copyright and Related Rights (as amended up to Lei n.º 92/2019, de 04/09)

E.g.

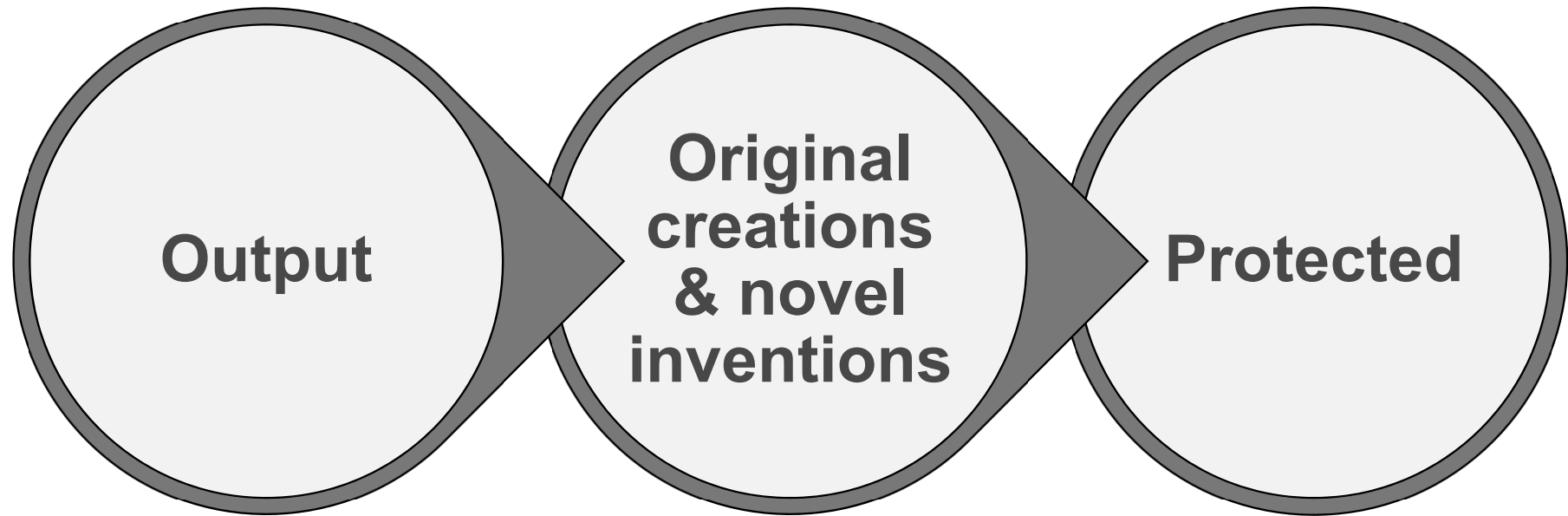
☐Art. 75

- 2 (f) The reproduction, distribution and making available to the public for educational purposes of parts of published works, to the extent of the educational purposes and provided that they are not for direct or indirect commercial advantage of the entity
- 2 (g) Quotations to support theories, critiques, reviews or educational purposes, to the extent necessary for such purpose
- 2 (h) The inclusion of parts of works in educational works
- 2 (o) The use by communication or making available, for the purpose of research or private study, to individual members of the public through dedicated terminals on the premises of libraries
- 5 : Deviations by contract are unenforceable

☐See also Art. 81 (b): private use

☐Future changes by the 2019 DSM Directive

IP & Universities



- Academic staff
- Doctoral researchers
- Guest-researchers
- Collaborations
- Underlying funding
- ...

- Copyright
- Patents

Ownership ?

Universities & IP ownership

General rule that the intellectual property rights belong to its creator; unless ..

Copyrighted works

Rules in Copyright Act?

- Transfer only if clause in contract

Ownership is important in view of OA policy

Patentable inventions

Rules in Industrial Property Code ?

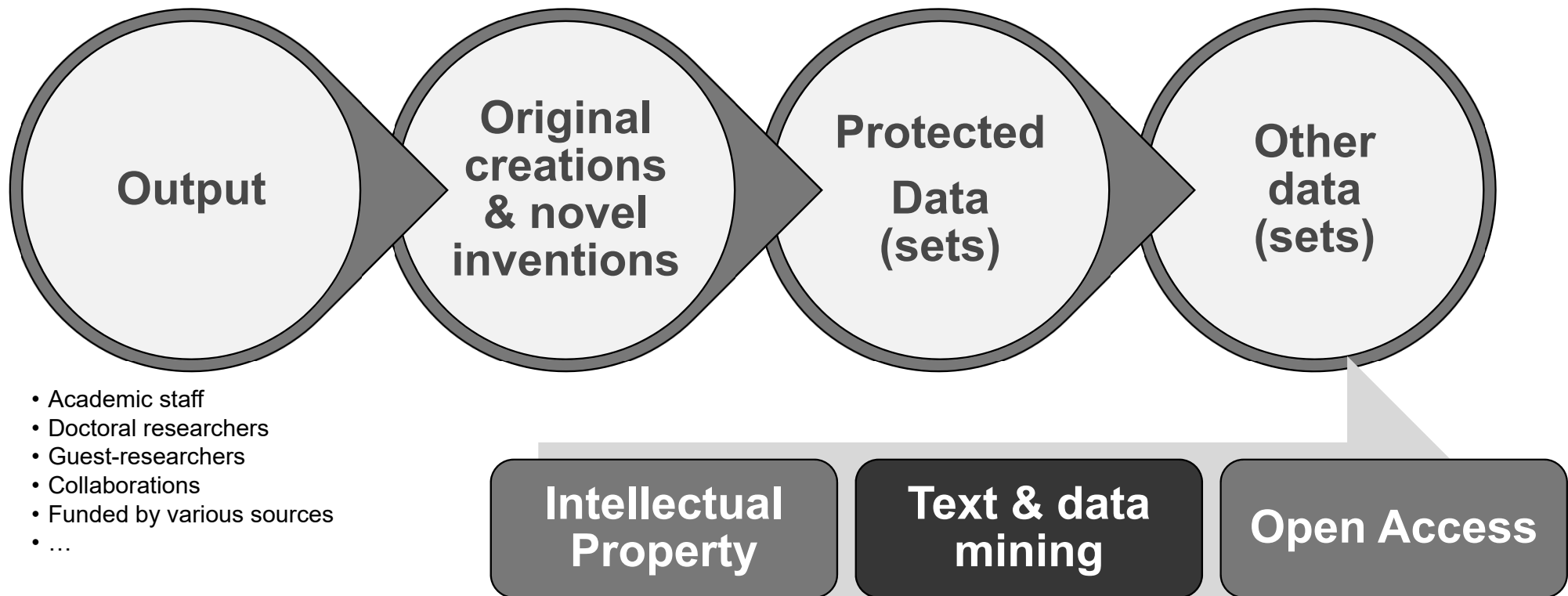
- the right to the invention made during the performance of a *labour agreement that provides for the inventive step* shall belong to the employer
- Application to universities ?

Institutional policy

- University of Minho's Intellectual Property Regulation



IP & Universities



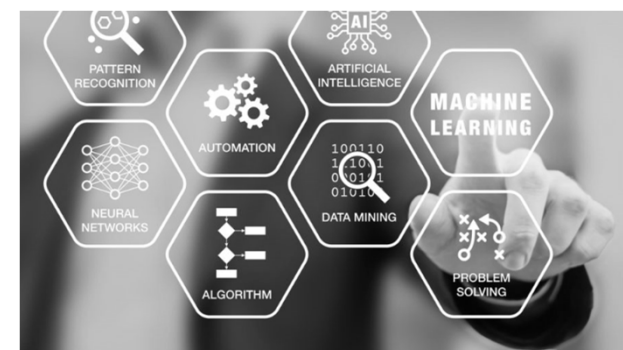
Text- and datamining (Content mining)

□ Definition (Art. 2.2 2019 DSM Directive)

- Means any automated analytical technique aimed at analysing text and data in digital form in order to generate information which includes but is not limited to patterns, trends and correlations

□ I.e.

- Computer-based analysis of large bodies of data in order to gain knowledge
- Hugely important research tool in science and many other domains



Text- and datamining (Content mining)

□ Examples

- Linguistics: analyse large bodies of text to extract syntactic or grammatical patterns
 - But also Musicology, astronomy, social sciences ...
- Arts : e.g. Rembrandt project
- Pharmaceutical research
- Journalism
- Information retrieval
- Search

□ Essential tool in AI context & self learning systems (speech recognition, translation, ...)

Universities & TDM

**Producers
of data**

**Consumers
of data**

Producers of data

Consumers of data

TDM creates huge possibilities for academic research

If access and reuse allowed

- Open access (institutional) repositories
- Versus: proprietary (scientific publication) repositories
 - e.g. prohibition clause : 'crawlers and other automated processes may not be used to systematically retrieve ...

TDM → Possible IP / © liability → Legal uncertainty

Individual
(possibly
protected)
content

Content
placed in
Data set
e.g.
repository

Access +
Mining by
applying
specific
algorithms

Analysis
of
processed
data

New
knowledge

New EU TDM
legislation
(2019 → 2021)

**DIRECTIVE (EU) 2019/790 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL****of 17 April 2019****on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC****Article 3**
Mandatory exception for TDM

- Beneficiaries :
 - Research institutions and cultural heritage institution
 - For the purposes of (non-commercial) scientific research
- No possibility to contract away

Article 4
Mandatory exception for TDM

- Beneficiaries
 - No limitation
 - For every purpose
- Possibility to contract away
- + : ‘opt out’ provision
 - “express reservation by rightholders”

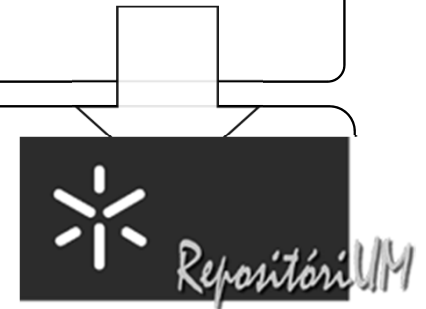
Producers of data

**Consumers
of data**

**Increasing pressure to make (publicly funded) data
available**

Open access schemes (v traditional channels)

- e.g. institutional repositories (green route) or gold OA



**Intellectual
Property**

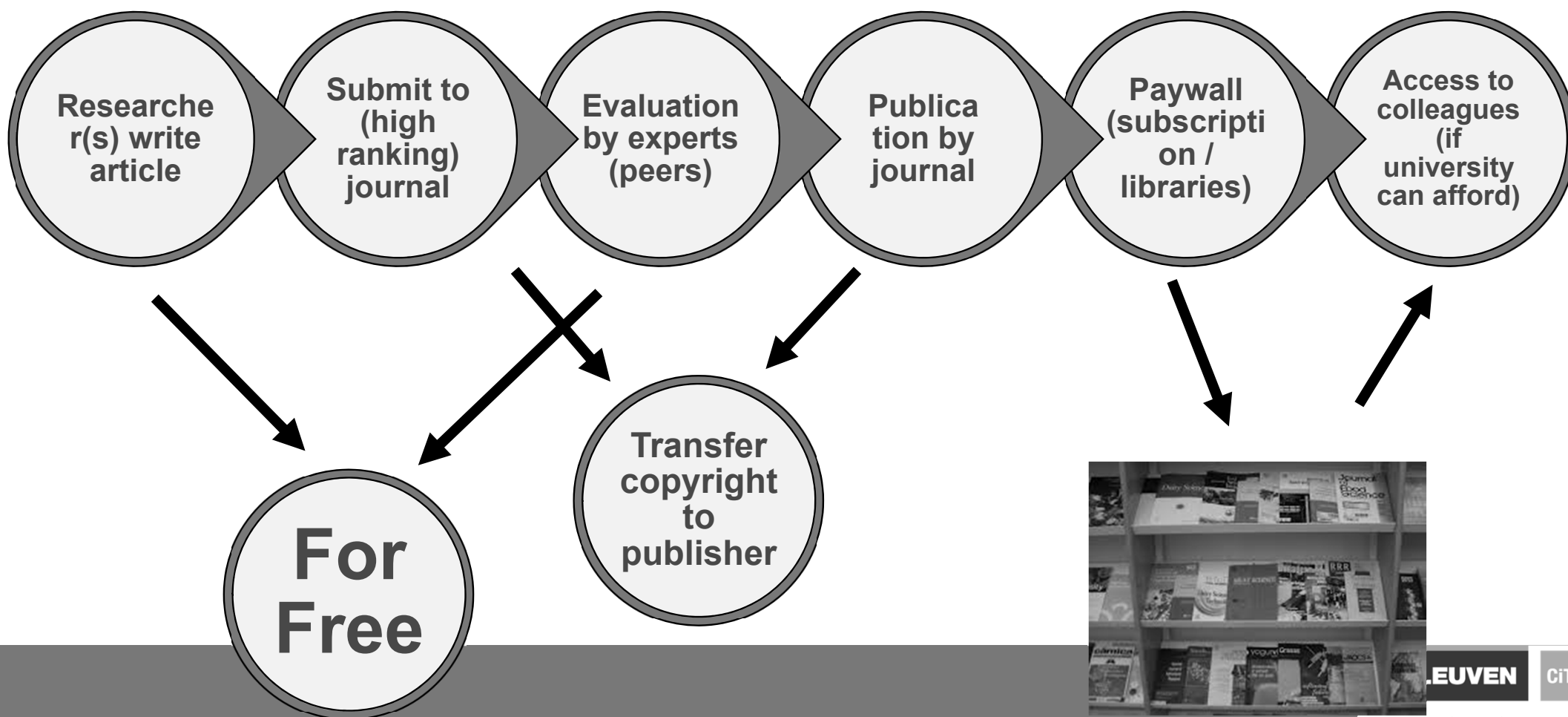
**Text & data
mining**

Open Access

if adequate licensing strategy (access + reuse)

- Often : CC By and/or OpenDataCommons (database rights)
- Problem of licence incompatibilities !

Traditional publication model



Boosters of OA end of 20th century



Digitization (lowering publishing costs) & networking (facilitating access)



Journal subscriptions outpaced inflation by over 250 % over the past 30 years

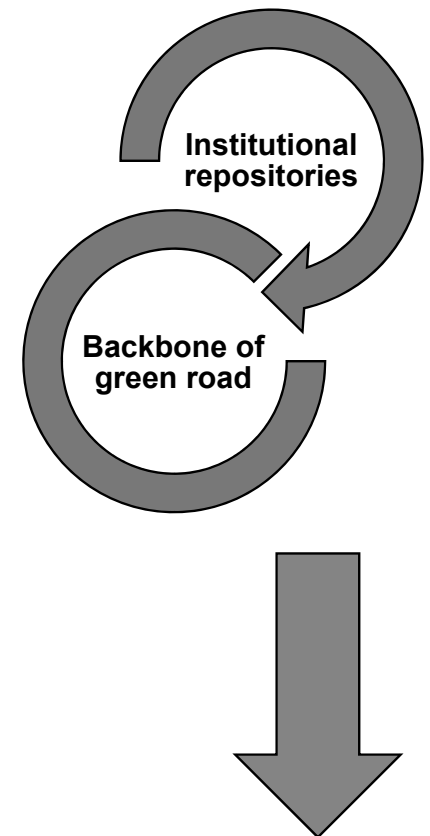
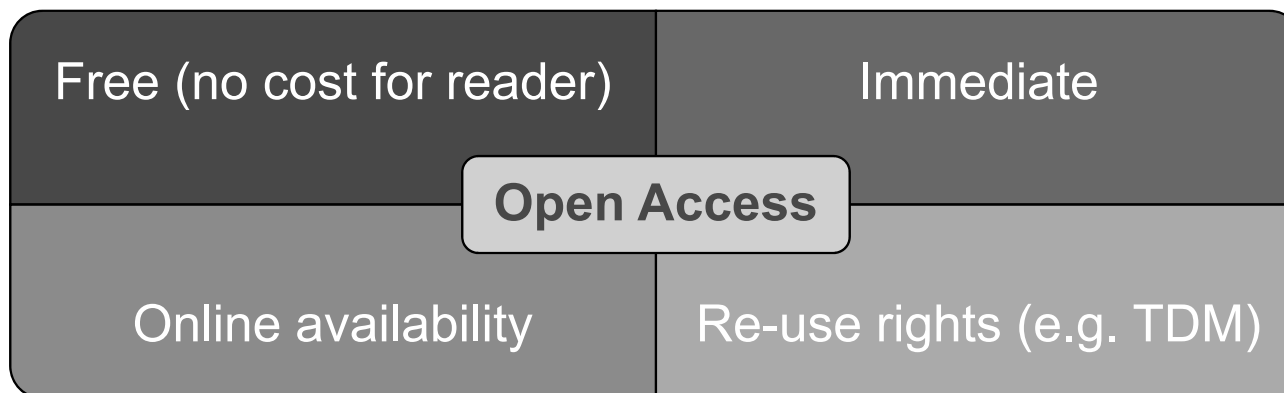
Yet the journals do not

Produce the research content;
Employ the people who write the papers
Employ the people who review the papers

Building up the OA Principles

□ International level

- Budapest Open Access Initiative (Open Society Institute 2002)
- Bethesda Statement on Open access Publishing Declaration (Howard Hughes Medical Institute 2003)
- Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (Max Planck Institute 2003)
 - On 27 November 2006 the Council of Rectors of Portuguese Universities (CRUP) joined the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities



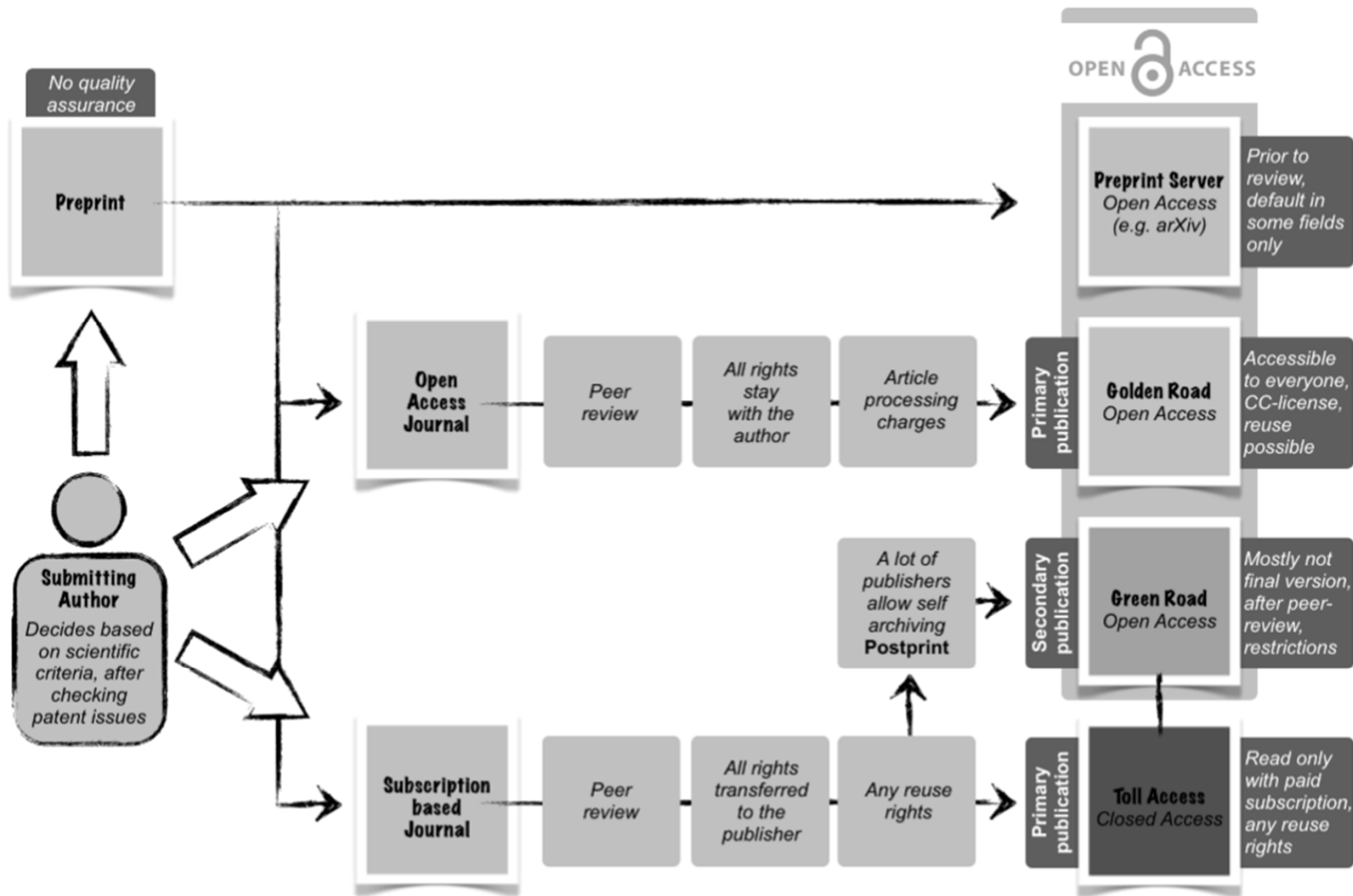
Forms of Open Access (not either/or)

❑ **Green OA (often post-print version + delayed): self-archiving**

- The author self-archives a version of the subscription article in an online repository or website + decides on free availability (unless institutional policy mandates this)
 - Institutional repository, Own website, Subject-based repositories, Research communities (*arXiv*, *PubMed Central*, *ResearchGate*, *SSRN*, ...)
- *Provided no problematic terms in copyright contract(!!)*
 - Yet many major publishers allow this, often subject to an embargo period (see Sherpa/Romeo DB)

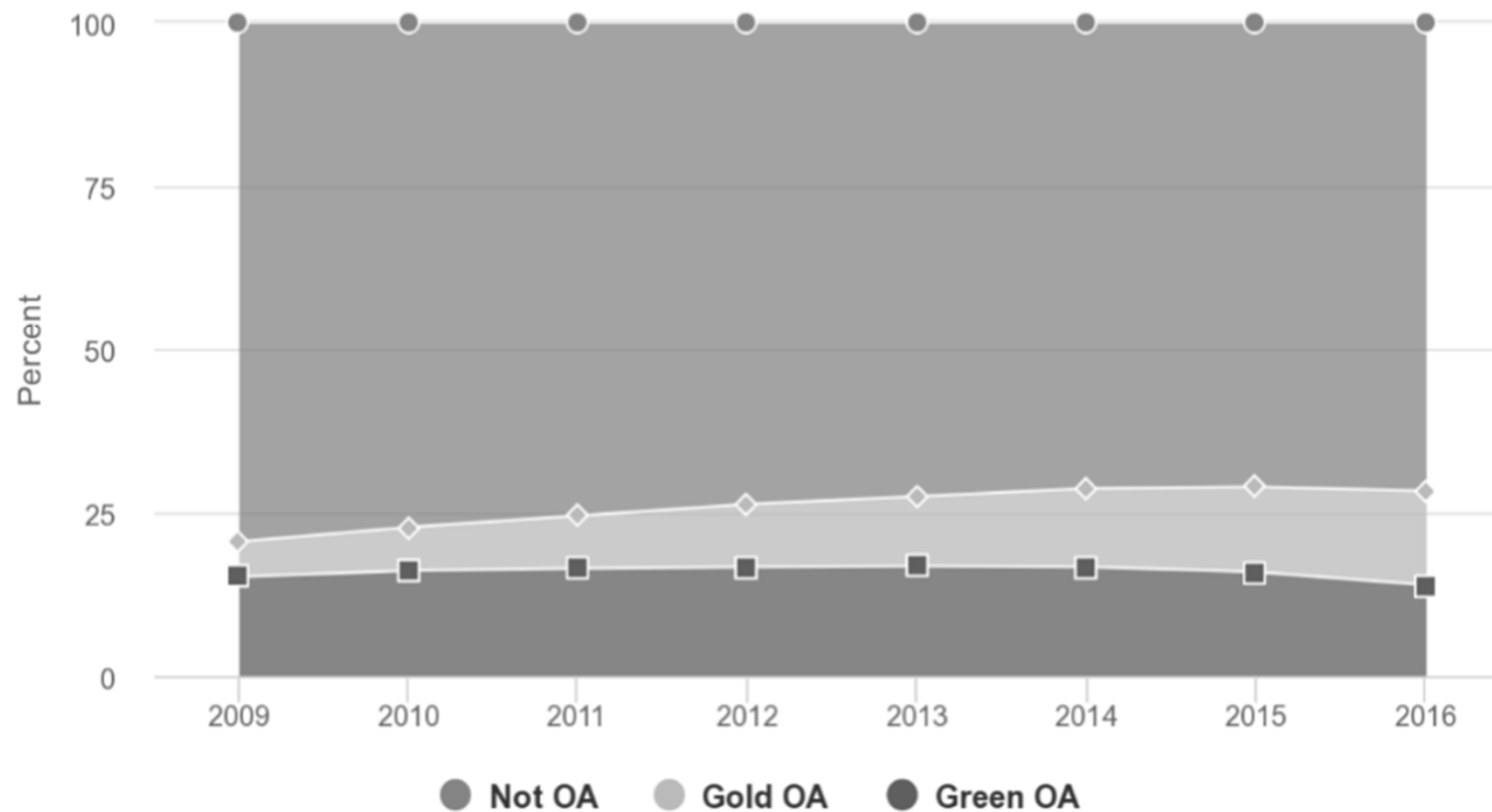
❑ **Gold OA (publisher's pdf + immediate): publication**

- The published article is immediately freely available online for all to read, download, and share
- 3 ways - authors may publish in a:
 - Fully open access journal & the author pays an APC (Article Publication Charge) (e.g. PLOS journals) – 1000 → 4.500 euro !
 - Fully open access journal without APC ('diamond road') (e.g. JIPITIC)
 - Hybrid journals with a mix of subscription content and open content (APCs paid) – problem of 'double dipping'
- Often, the publisher still requires transfer of the copyright



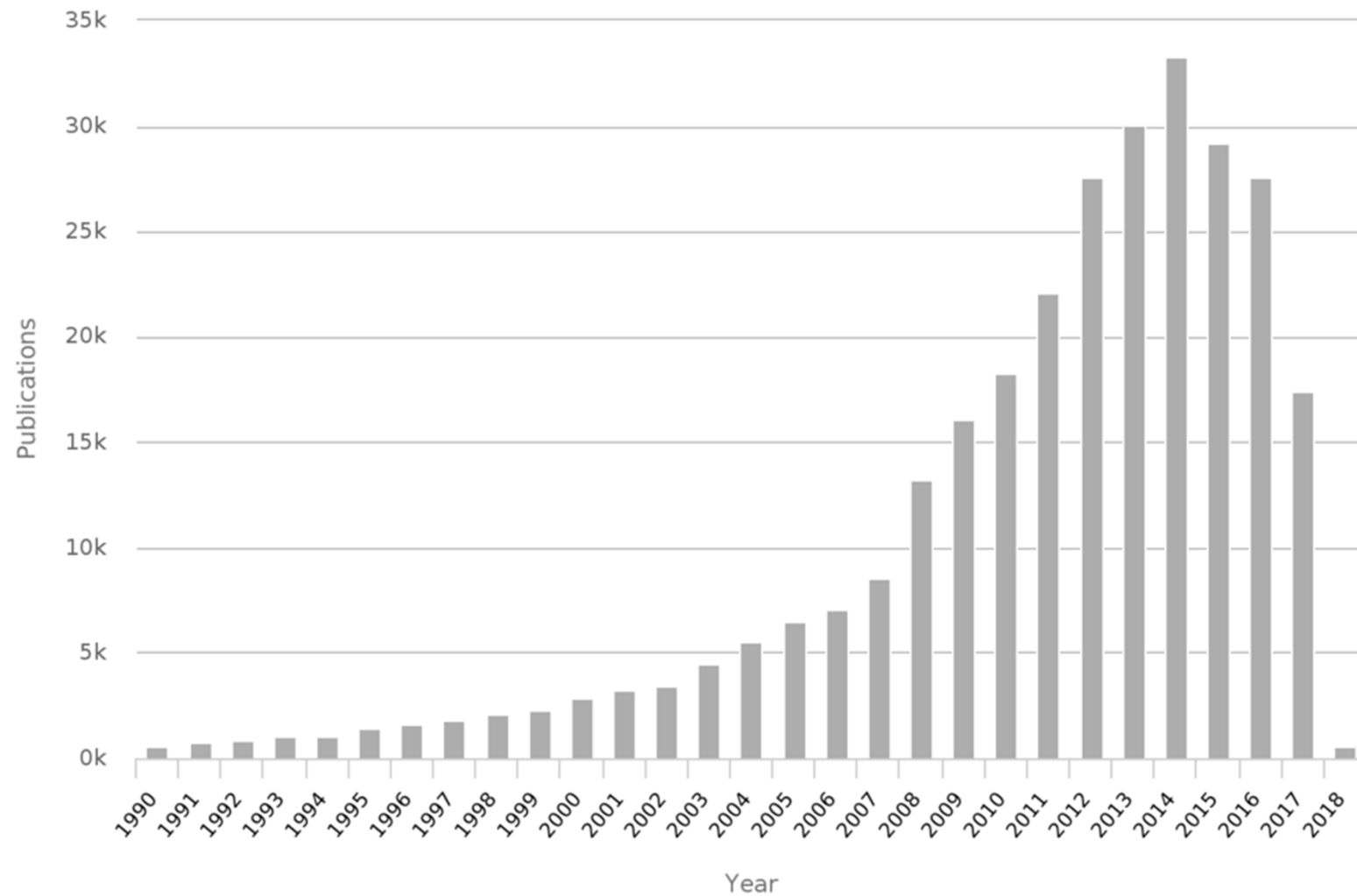
Percentage of open access publications (gold and green) by year on total

Source: Consortium's own analysis of Scopus database



© Europese Unie, 1995-2018 – Scopus Database

OA Publications in Portugal over time



**Crawford, Walt (ORCID 0000-0002-4815-1997),
Gold Open Access by Country 2012-2017,
Livermore, CA: 2018**

Portugal

The Big Numbers

2018	Journals	Articles	Art%	\$/Art
All	12,180	711,670		\$913
Fee	3,506	413,826	58%	\$1,569
No-fee	8,674	297,844	42%	
Biomed	3,062	252,842	36%	\$1,296
Fee	1,519	177,287	70%	\$1,849
No-fee	1,543	75,555	30%	
STEM	3,181	289,522	41%	\$1,039
Fee	1,203	199,232	69%	\$1,510
No-fee	1,978	90,290	31%	
Hum&SS	5,937	169,306	24%	\$123
Fee	784	37,307	22%	\$558
No-fee	5,153	131,999	78%	

Table 1.1. Key facts, overall

	Jrn.	Art.	Art%	Rel%	\$/Art	Rel%
All	87	2,870			\$140	-85%
Fee	12	807	28%	-52%	\$497	-68%
No-fee	75	2,063	72%	72%		
Biomed	14	610	21%	-40%	\$2	-100%
Fee	1	62	10%	-86%	\$17	-99%
No-fee	13	548	90%	201%		
STEM	10	326	11%	-72%	\$62	-94%
Fee	1	121	37%	-46%	\$168	-89%
No-fee	9	205	63%	102%		
H&SS	63	1,934	67%	183%	\$196	60%
Fee	10	624	32%	46%	\$609	9%
No-fee	53	1,310	68%	-13%		

Mostly H&SS, mostly no-fee.

Problems with Green Road

☐ Copyright 'ownership'

- Not all scientific journals allow a method of self-archiving (SherpaRomeo database)
- Initiatives legislator

☐ Embargo (unless Gold)

- Scientists cannot wait

☐ Postprint version

☐ Lack of peer review & recognition within evaluation system

☐ Social norms

- Researchers are very conservative in changing how they do things



Copyright contract law at the intersection

of



and



- ❑ The conflict between authors and publishers about access to scientific work refers to an underlying, more fundamental fact, namely the free transfer of copyright.

Legislative initiatives in EU Member States

☐ Italy

- Law concerning the valorization of culture of 7 Oct. 2013

☐ Spain

- Law 14/2011 of 1 June 2011 (art. 37.2)

☐ Germany

- Art. 38 (4) Copyright Act (1.1.2014)
 - The author of a scientific contribution which is the result of *a research activity publicly funded by at least fifty percent* and which has appeared in a collection which is *published periodically at least twice per year* has the right, even if he has granted the publisher or editor an exclusive right of use, to make the contribution available to the public in *the accepted manuscript version* upon expiry of *12 months after first publication*, unless this serves a commercial purpose. The source of the first publication shall be indicated. Any deviating agreement to the detriment of the author shall be ineffective

☐ Netherlands

- Art. 25fa Copyright act (1 July 2015)

☐ France

- Art. L. 533-4 – code de recherché (28.09.2016)

☐ Belgium

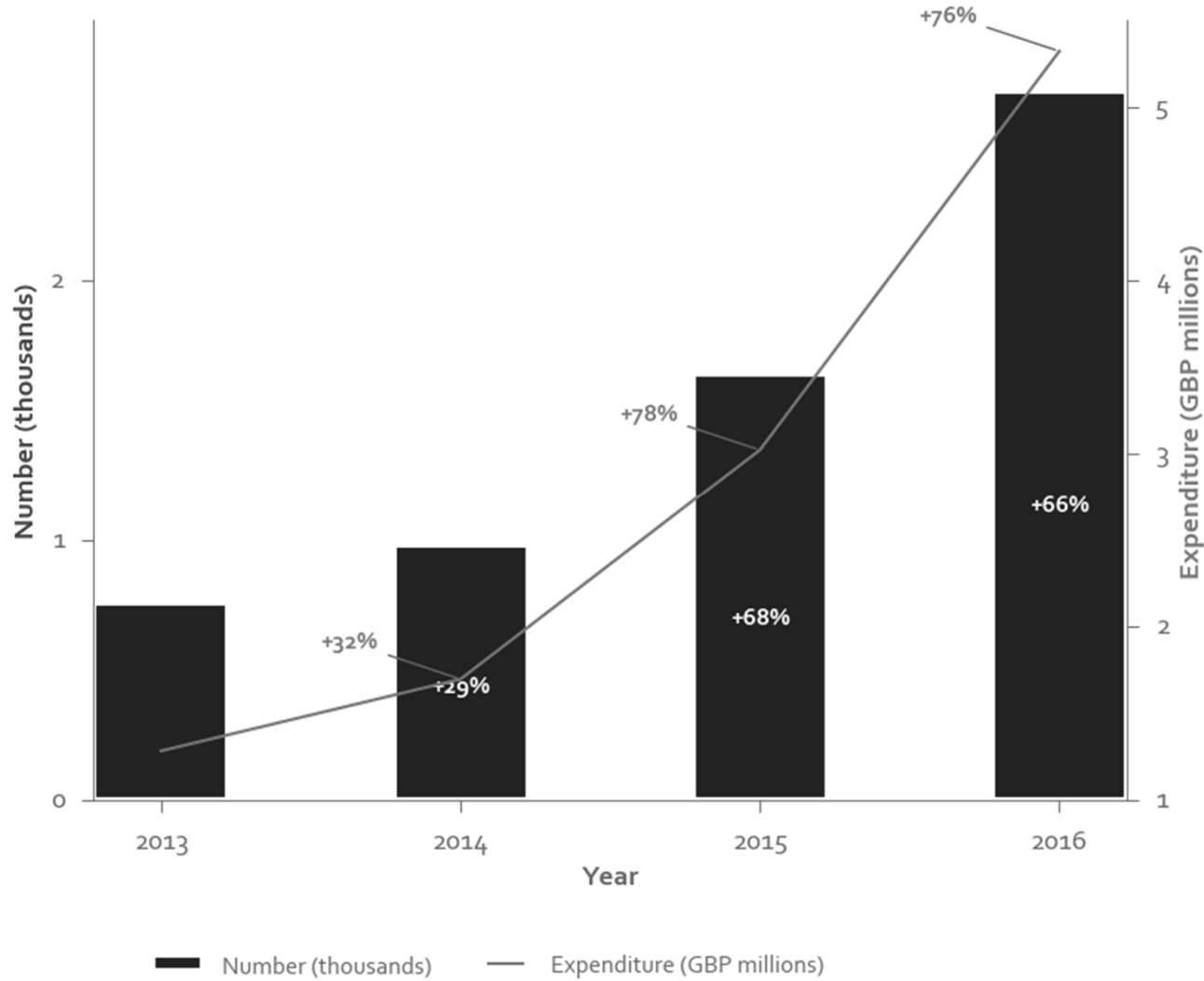
- Art. XI.196 Code of Economic Law (Copyright Act), inserted in 2018

Other relevant EU Legislation

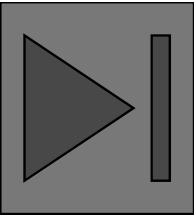
Open Access → Open Science

- ❑ **PSI Directive 2003/2013 → renamed as Open Data and Public Sector Information Directive** (into force on 16 July 2019 – deadline : 16 July 2021))
- Enlarges the scope of the Directive to research ***data resulting from public funding***
 - “Member States shall support the availability of research data by adopting national policies and relevant actions aiming at making publicly funded research data openly available (‘open access policies’) following the principle of open by default and compatible with ***FAIR principles***”
 - FAIR : findable, accessible, interoperable, reusable
 - “for commercial or non-commercial purposes insofar as they are publicly funded and researchers, research performing organisations or research funding organisations have already made them publicly available through an institutional or subject-based repository”^{x2}

Problems with Gold Road



New
approach
Plan S ?



- On 4 September 2018, a group of national research funding organisations, with the support of the European Commission and the European Research Council (ERC), announced the launch of cOAlition S, an initiative to make full and immediate Open Access to research publications a reality. It is built around Plan S, which consists of one target and 10 principles.
- Plan S requires that, from 2021, scientific publications that result from research funded by public grants must be published in compliant Open Access journals or platforms.

Participants



National funders



+ Statements of supports



10 Principles

1. Authors or their institutions **retain copyright** to their publications.
2. Develop robust criteria and requirements for the services of high-quality Open Access journals
3. Provide incentives to establish and support for Open Access infrastructures where necessary
4. Open Access publication fees are covered by the Funders or research institutions, not by individual researchers
5. Allow for a diversity of business models for Open Access journals and platforms.
6. Governments, universities, research organisations, libraries, academies, and learned societies should align their strategies, policies, and practices, notably to ensure transparency
7. Principles shall apply to all types of scholarly publications, but it is understood that the timeline to achieve Open Access for monographs and book chapters will be longer and requires a separate and due process
8. **No support for the ‘hybrid’ model** of publishing (yet, there will be a transitional pathway)
9. The Funders will monitor compliance and sanction non-compliant beneficiaries/grantees
10. The Funders commit that when **assessing research outputs** during funding decisions they will value the intrinsic merit of the work and not consider the publication channel, its impact factor (or other journal metrics), or the publisher.

(Not really) The End

Thank you for your attention

