

# The opportunities offered by open science to forest and wood science journal editors.

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# Content

1. Open science: opportunities and some consequences;
2. Changes in the publication procedure;
3. The emerging importance of open data;
4. Conclusion: use the new opportunities!

*The perspective is that of a **scientist and journal editor**, who was trained at the end of the Gutenberg era, and followed the developments of open science ” in vivo”.*

## 1. Open science: opportunities and some consequences

Open Science: an old concept in a new context.

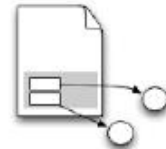
### The end of Gutenberg era ...



No links

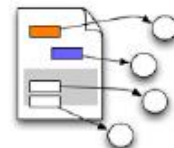


Reference  
cited links



Term links

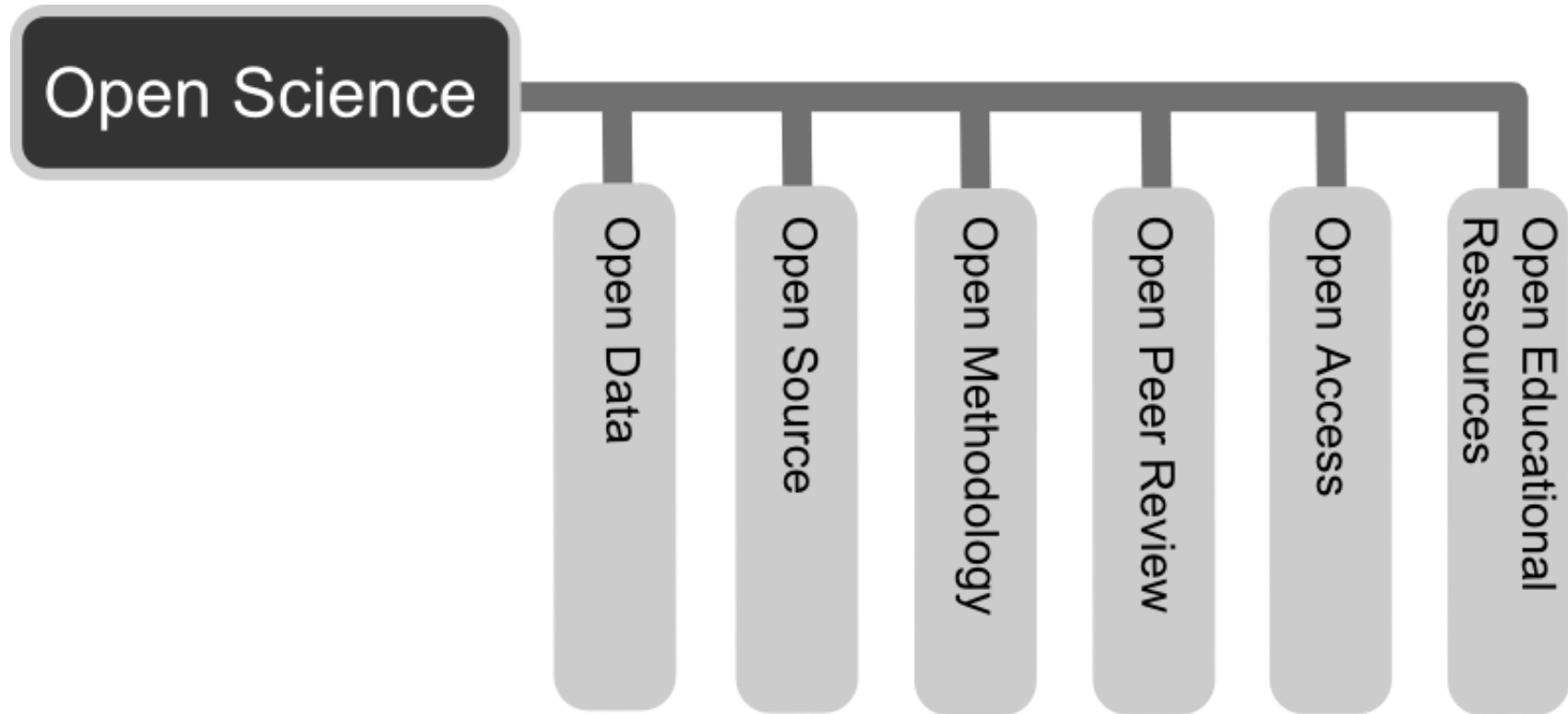
Reference  
cited links



<http://iphylo.blogspot.fr/2009/04/semantic-publishing-towards-real.html>

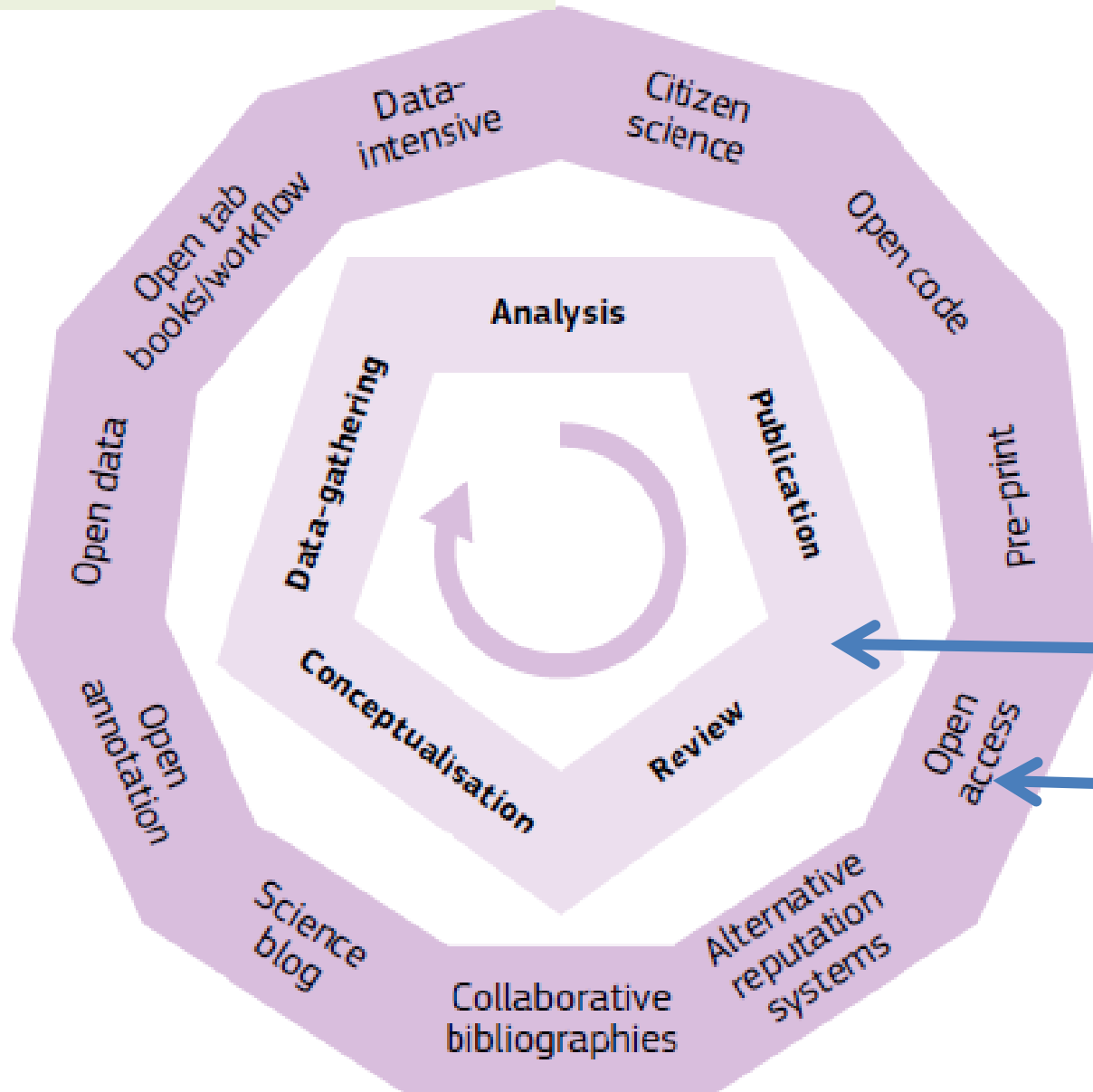
## 1. Open science: opportunities and some consequences

**Open science is not just about « Open publishing »**



"Open Science - Prinzipien" by Andreas E. Neuhold - Own work. Licensed under CC BY 3.0

# 1. Open science: opportunities and some consequences



**Open Science opens up the whole research process by means of different tools**

**Research process**

**Digital tools**



**1. Open science:  
opportunities and some  
consequences**

# **Open Access to the products of Science is a central issue for Open Science**



cOAlition S

**Accelerating the transition to  
full and immediate Open Access  
to scientific publications**

<https://www.coalition-s.org/principles-and-implementation/>

## 2. Changes in the publication procedure

*1. Still dominant model: subscription based dissemination.*

*2. Gold open access*

*Authors pay the Article Processing Charges  
(may reach 3000 €)*

*80% of the journals created in the last years  
are Gold Open Access (BMC, PlosOne, .....)*

*Favoured by publishers, emergence of  
predators....*

*3. Green open access*

*Institutional manuscript repositories (like HAL)*

*Pre-prints on suitable repositories*

*4. Hybrid model between subscription and gold open access*

**An easy start: making sure your production (papers, pre-prints, post-prints, final papers) is available in a public repository in the frame of the copyright rules of the journals.**

- 1. Pre-print: manuscript version prior to journal submission;***
- 2. Post-print: manuscript version of the published paper;***
- 3. Final paper: usually, the .pdf or the .xml of the published paper.***

**In France, law states that the embargo on pre-print deposit cannot last more than 6 months (12 for humanities).**

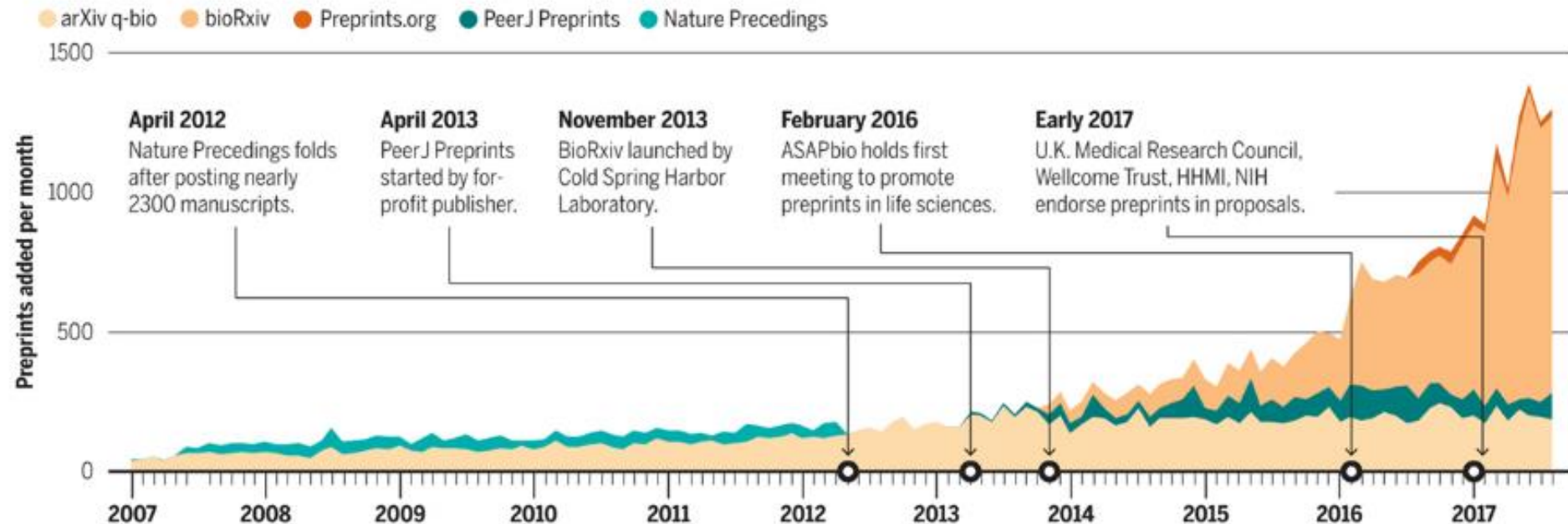
**Most publishers accept pre-prints for submission to journals.**



# *The rapid development of pre-print servers in biology.*

## A long time coming

Physicists have posted unreviewed preprints of their work for decades, but the practice is only just taking off among biologists. Many reckon that the 2013 launch of bioRxiv marked the tipping point. But even now, just 1.3% of biology papers first appear as preprints.



Kaiser J., Science 2017

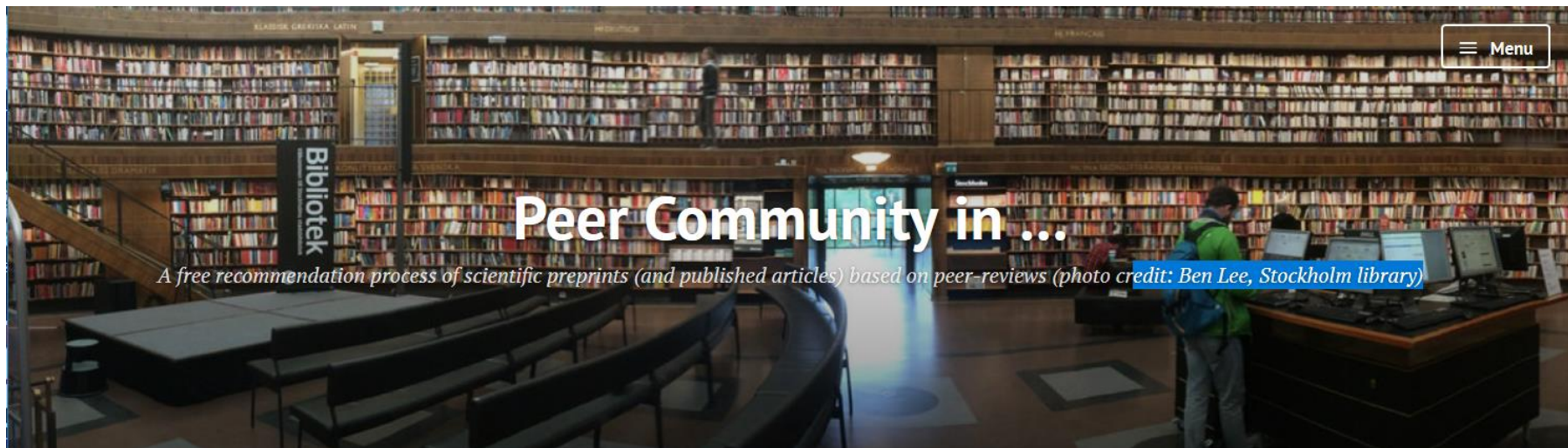
<http://science.sciencemag.org/content/357/6358/1344>

# Pro and cons of publishing pre-prints

Many pros: *open reviews, rapid dissemination, successive versions available, no precedence conflicts, citeable items, may be published in recognised journals; .....*

Major issue: *quality control procedure?*

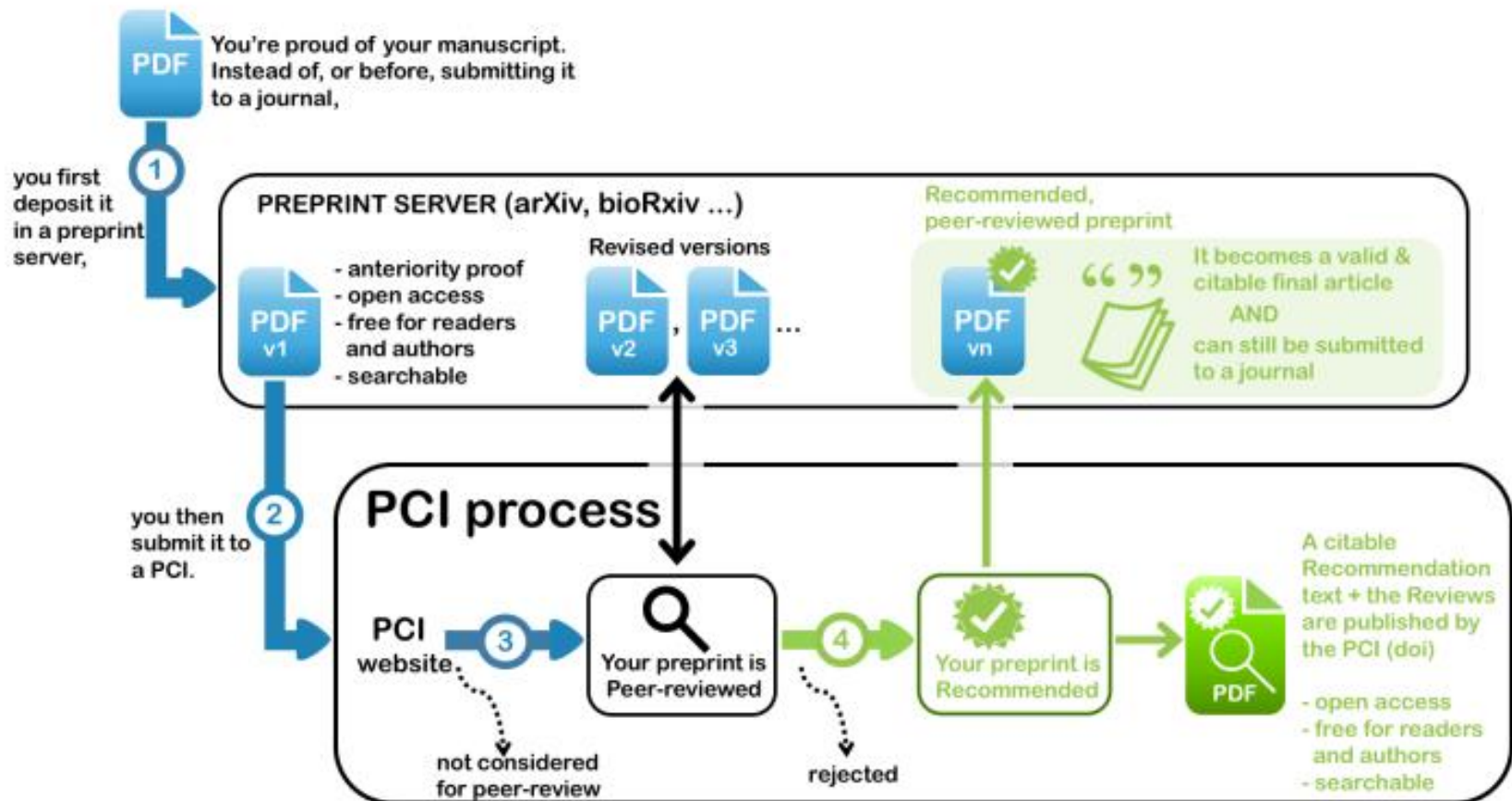
*New initiatives aiming at assessing the quality of pre-prints:*



<https://peercommunityin.org>,  
@PeerCommunityIn

Creators: Denis Bourguet, Thomas Guillemaud, Inra-Antibes and Montpellier

## The project in a few lines



# Existing PCIs....

January 2017



Denis Bourguet, Benoit Facon  
& Thomas Guillemaud

January 2018



Jeremy Anquetin & Guillaume Billet



François Massol, Tim Couslon,  
Dominique Gravel & Cyrille  
Violle

June 2019



Rafael Muñoz-Tamayo



Denis Bourguet, Benoit Facon  
& Thomas Guillemaud



# A new PCI....



## Peer Community In

Forest & Wood  
Sciences

Free and transparent preprint and postprint  
recommendations in forest & wood sciences

*Accepted September 2019;  
Launching: 1 January 2020.*

***Multi and inter-disciplinary: From biology to social  
sciences.***

***Big issues:***

***Forest ecology and ressources  
Mitigation of CC; adaptation to CC,  
Forest based bioeconomy;  
Biodiversity; Landscape restoration;***

***...***

Web page coming soon,

Mail: [contact@forestwoodsci.peercommunityin.org](mailto:contact@forestwoodsci.peercommunityin.org)

### 3. The emerging importance of Open Data



PUBLICATIONS AND DATA



## Open data: journals encouraged to promote open data and define an explicit policy towards data

<http://www.springernature.com/gp/group/data-policy>

### Policy Types

#### Type 1

Data sharing and data citation is encouraged but not required

#### Type 2

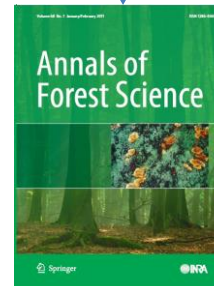
Data sharing and evidence of data sharing encouraged

#### Type 3

Data sharing encouraged and statements of data availability required

#### Type 4

Data sharing, evidence of data sharing and peer review of data required



## Annals of Forest Science

## BLOG

[News and comments](#)[About Annals of Forest Science »](#)[Archives](#)[For authors »](#)[For Referees »](#)[Editorial news](#)

### **GUIDELINES FOR AUTHORS: HOW TO SHARE YOUR DATASETS?**

By [Isabelle Fabrisin](#) On 24 July 2019 In [For Authors](#)

Science publication moves gradually towards Open Science, meaning that products of research are made as much as possible openly available to the scientific community.

Annals of Forest Science aims to develop an explicit and voluntary policy about access to the data in support of research paper and data papers. We strongly encourage the authors of research papers to provide access to their data under the form of open data sets, together with all required metadata. We discourage the uploading of datasets as supplementary material files that are published online in the journal's platform under restricted access and involve the transfer of copyrights to the publisher.

Data must be Findable, Accessible, Interoperable, and Reusable (FAIR) and these

### **SEARCH**



### **ARCHIVES**

[→ September 2019](#)[→ August 2019](#)[→ July 2019](#)[→ June 2019](#)[→ May 2019](#)[→ April 2019](#)[→ February 2019](#)

<https://ist.blogs.inra.fr/afs/2019/07/24/guidelines-for-authors-how-to-share-your-datasets/>

# SCIENTIFIC DATA

Amended: Addendum

OPEN

SUBJECT CATEGORIES

- » Research data
- » Publication characteristics

## Comment: The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson *et al.*<sup>#</sup>

SCIENTIFIC DATA | 3:160018 | DOI: 10.1038/sdata.2016.18

## ***Data papers***

**A short paper describing  
the data set**

**A meta data file  
enabling any reader to  
reuse the data**

**The data set itself**

**Identified by a  
digital object  
identifier (DOI)**

**Made available  
on a public data  
repository**

# Conclusions

The development of the digital world offers **large opportunities** to practice research and science based on transparent procedures **under high standards of scientific integrity.**

## 1. Improved **dissemination of all products of science:**

- results of experiments (publications);
- data and codes;
- protocols;
- meta analyses of large data sets and reviews;
- text and data mining;
- .....

2. This requires high level standards for **scientific integrity**:

- **Avoiding misconducts** (like plagiarism, falsification, fabrication...);
- **Avoiding sloppy science** (*inadequate designs, lack of key information on experimental designs, cherry picking among data, publication only of significant results, .....*);
- **Publishing negative results**;

***Open Science is about the highest possible standards for scientific quality, integrity and ethics.***



***Open Science is about the highest possible standards for scientific quality, integrity and ethics.***

***Consistent use of Open Science may improve the confidence of the general public in science outcomes.***

***Thank you for your attention!***