



Increasing citation diversity in the journal *Agronomy for Sustainable Development*

Marjolaine Hamelin, Eric Lichtfouse

► To cite this version:

Marjolaine Hamelin, Eric Lichtfouse. Increasing citation diversity in the journal *Agronomy for Sustainable Development*. 9. Annual North American Conference, International Society of Managing and Technical Editors (ISMTE). INT., Aug 2016, Philadelphie, United States. hal-01594730

HAL Id: hal-01594730

<https://hal.science/hal-01594730>

Submitted on 5 Jun 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Increasing citation diversity in the journal Agronomy for Sustainable Development

Marjolaine Hamelin¹, Eric Lichtfouse²

¹ Managing Editor, LBE, INRA, Narbonne, France. marjolaine.hamelin@supagro.inra.fr ² Editor in chief, Agroécologie, INRA, Dijon, France. eric.lichtfouse@dijon.inra.fr

Purpose We wanted to check if our journal had an influence on disciplinary fields other than Agronomy, and if its influence varied with time.

Background

Agronomy for Sustainable Development (ASD) is an **international peer-reviewed journal of the French National Institute for Agricultural Research (INRA)**. The journal has been **renovated from 2003** by changing the title, the editorial policies, by communicating in a blog and in social media, and by increasing the number of published review articles¹.



Figure 1: Evolution of the journal covers
1: 1981 ; 2: 2003 ; 3: 2011

Methods

We first **extracted from the Web of Science (WoS)** the references of articles and reviews published between 2006 and 2015 and **citing ASD articles, except self-citations**.

We compared the dataset to one of a **narrower-scope journal** in the top 20 of the Agronomy category (Rice).

For journals belonging to **several WoS categories**, only the first one was considered.

The 67 WoS categories were gathered into **8 broader disciplinary fields**.

Statistical analyses (correlation, regression) were performed with the R software³.

The scope was also **broadened** to publish studies at the interface of ecological, economic and social sciences. Various “hot” topics such as biofuels, genetically modified crops or urban agriculture emerged in the journal².

The journal rank in the Thomson Journal Citation Reports (JCR) Agronomy category **increased from 29/53 (2-years Impact Factor of 0.56) in 2003, to 4/83 (2-years Impact Factor of 4,14) in 2015**

Results

Figure 2

Number of WOS categories of articles citing the journal
Agronomy for sustainable Development

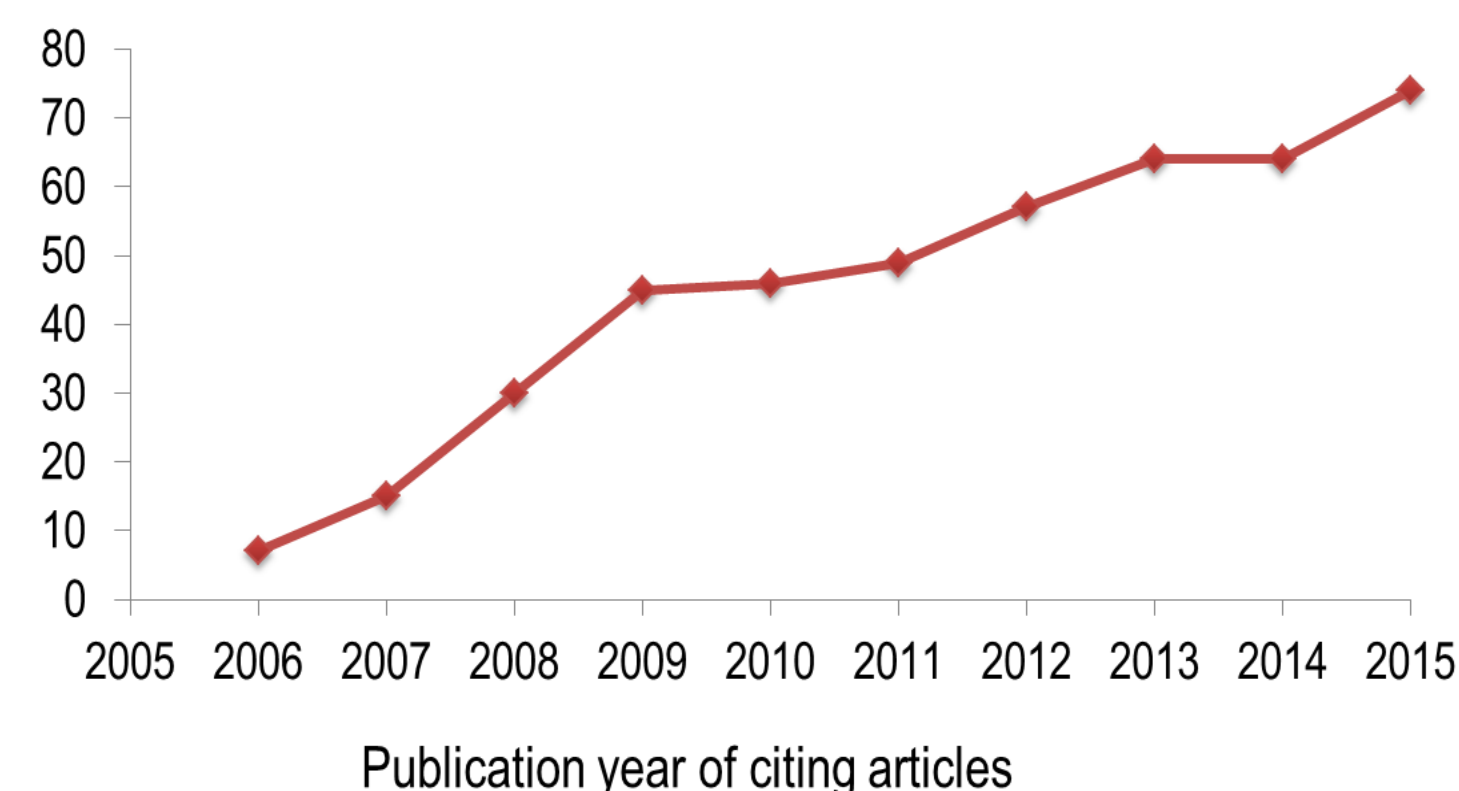
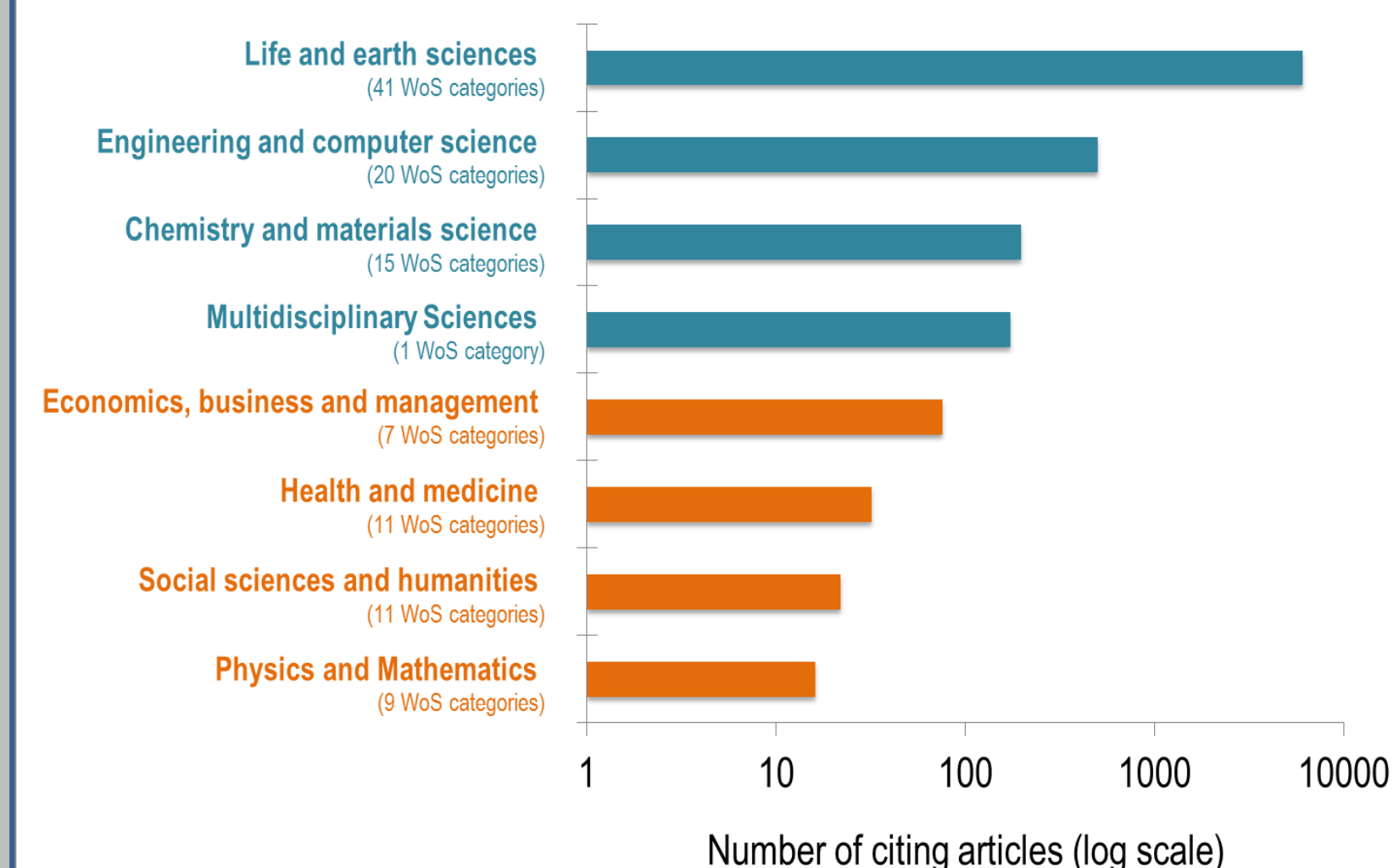


Figure 3

Disciplinary fields of ASD citing articles



Work supported by  INRA
SCIENCE & IMPACT

The **observed number of WoS categories** of the citing articles **increased** from 7 in 2006 to 74 in 2015 (Figure 2). This increase in diversity might be due **the increase of number of citing articles** (Pearson correlation $\text{cor}=0.893$, $\text{p-value}<0.001$).

Some citations originate from journals in rather **remote disciplinary fields** such as health and medicine, or humanities and arts (Figure 3).

The **number of WoS categories is higher** for ASD than for a narrower-scope journal such as Rice (Figure 4)

We observed a **sharp increase** of the **number of WoS categories of citing articles with the 5-years Impact Factor** of the journal Agronomy for Sustainable Development (Figure 5).

Figure 4

Number of WoS categories of articles citing the journals

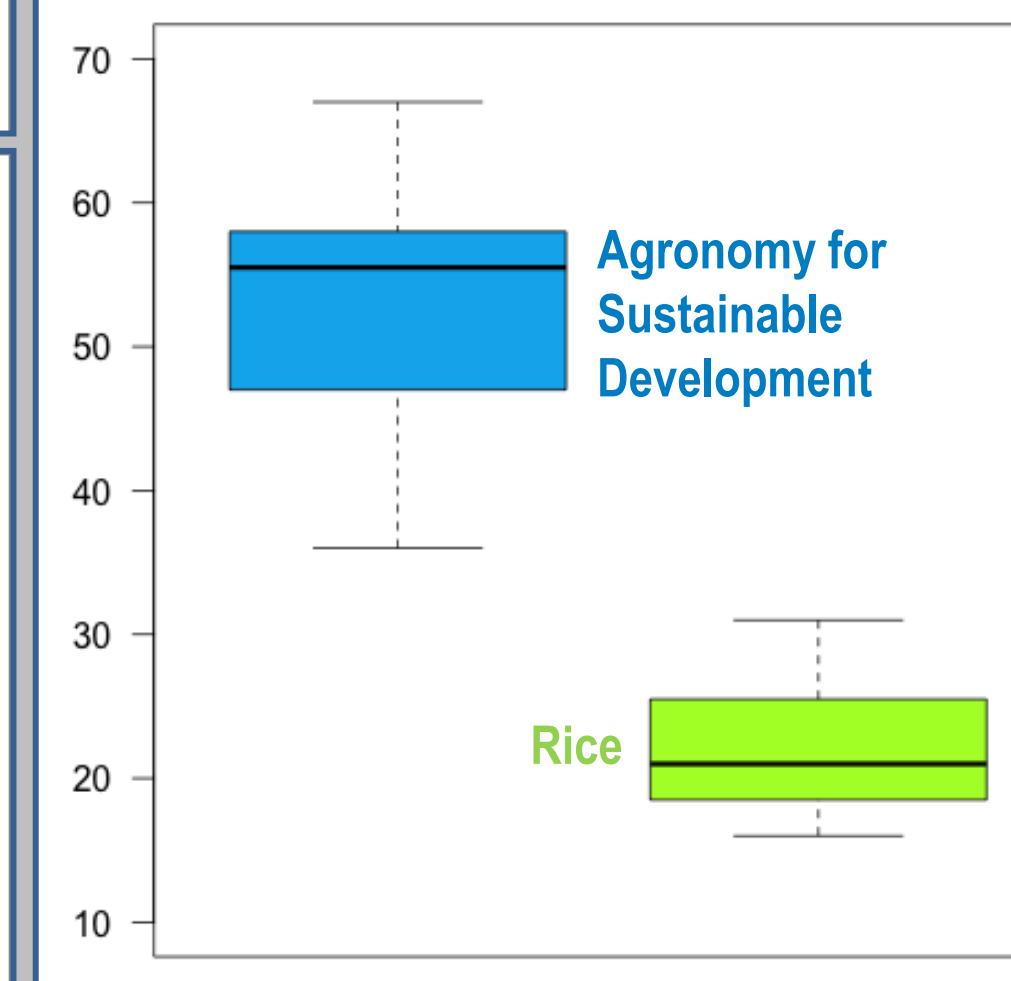
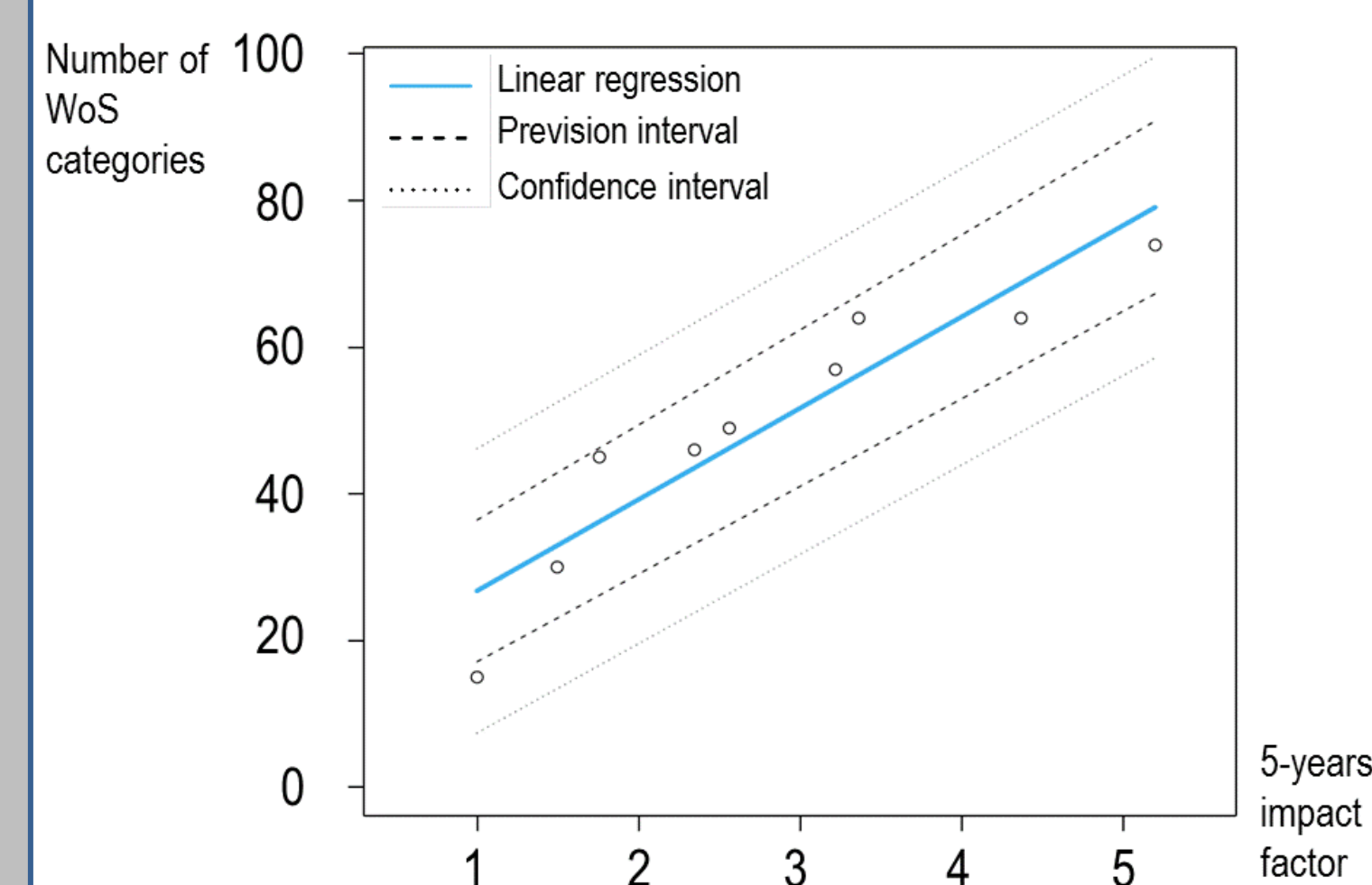


Figure 5

Linear regression between the number of WoS categories and the 5-years Impact factor for ASD



Take-home message

The **diversity of the readership of articles** from Agronomy for Sustainable Development increases with time. Our observations support the idea that **research at the interface between different disciplinary fields is developing**. Journals with a large scope may benefit from this evolution. This also underlines the importance of **making articles readable by scientists from other disciplines**.

References

- ¹Lichtfouse, E., Navarrete, M., Debaeke, P., Souchère, V., Alberola, C., & Ménassieu, J. (2009). Agronomy for sustainable agriculture: a review. In *Sustainable Agriculture* (pp. 1-7). Springer Netherlands.
- ²Lichtfouse, E., Hamelin, M., Navarrete, M., Debaeke, P., & Henri, A. (2010). Emerging agroscience. *Agronomy for sustainable development*, 30(1), 1-10.
- ³R Core Team (2015). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <http://www.R-project.org/>.