

Bioeconomy and Grey Literature — Empirical Evidence

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Abstract

The purpose of this poster is to provide empirical evidence on the role of grey literature in bioeconomy, as one of the emergent research fields at the crossroads of several disciplines and with high societal and industrial impact.

Research project

The purpose of our research is the analysis of the production, the usage and the communication of scientific and technical information in the field of bioeconomy and in the context of open science, in the French region Hauts-de-France.

Bioeconomy ?

Bioeconomy is an “economy based on the sustainable production and conversion of renewable biomass into a range of bio-based products, chemicals and energy”.

(De Besi & McCormick, 2015)

Methodology

Based on scientometric studies and on results from a survey in the field with research laboratories, corporate companies and other organizations.



Conclusions

QUALITY, VISIBILITY AND RETRIEVAL OF GREY LITERATURE ARE (STILL) ISSUES.

Recommendations

Improving FINDABILITY

Assignment of persistent identifiers and description with rich metadata

Increasing ACCESSIBILITY

Systematic sharing of reports, theses, working papers, preprints etc. in open access with repositories

Raising AWARENESS

Targeted advocacy and information on grey literature in professional and scholarly journals of the field

Creating TRUST

Appropriate documentation, transparency and labeled (certified) platforms

Acknowledgment

This work is part of a larger, interdisciplinary research project funded by the French National Research Agency (RECABIO ANR-16-IDEX-0004 ULNE).



LEARN MORE ABOUT THIS RESEARCH

Results

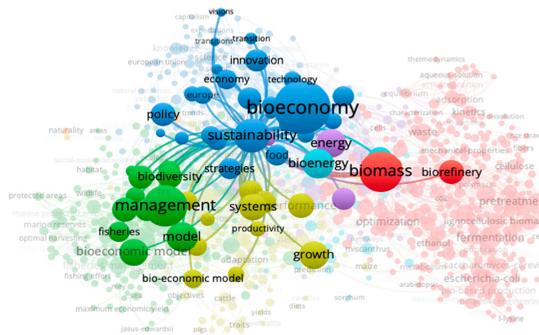


Figure 1. Fields of bioeconomy (Duquenne et al., 2020)

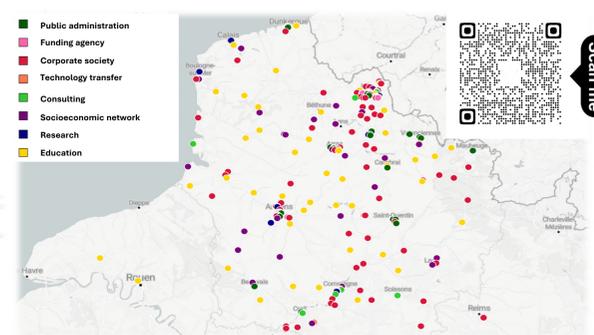


Figure 2. Bioeconomy stakeholders interactive map

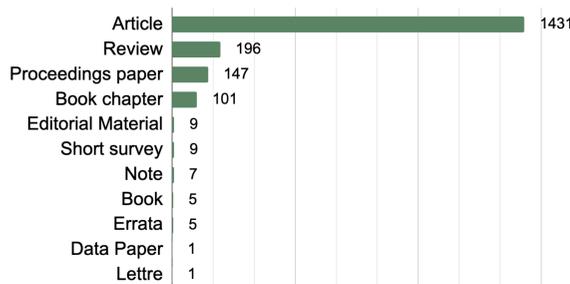


Figure 3. Numbers of document per type — France (N=1913) (Duquenne et al., 2022)

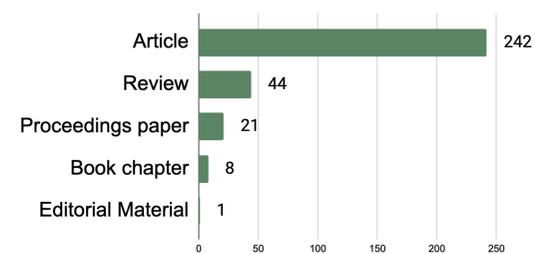


Figure 4. Numbers of document per type — Hauts-de-France (N=316) (Duquenne, in press)

INTERVIEWS

- Mass of information** « We have to look elsewhere for information, that is to say all the grey literature, reports and activity reports, databases. There are many, many, many... »
- Novelty** « When there is no choice, yes, I quote (grey literature). That is, in my field, there are things that are too new that are not yet published »
- Evaluation** « Yeah, it's important for us to use evaluated information (...) you can't just quote the grey literature »
« We generally have more confidence in what is evaluated by (reviewers) - I am not saying that we systematically discard preprints in our research, far from it, we also take them into account, but we will perhaps take a little distance, some precautions with the published results »
- Critical look** « Well, I think that (...) it is more after the critical look that one can have on the content finally and on the results. You can use them (= preprints) but you have to take the information with a grain of salt when you want to use it »
- Preprints** « I work mostly with reviewed articles but that doesn't mean I won't read an upcoming article »
« All that is preprint (is) rather useful to start a reflection »
- PhD theses** « I actually quote them as scientific literature (but) most of the time the theses have given rise to an article behind, not always but most of the time »

ANALYSIS

- Grey literature on bioeconomy is more or less invisible in bibliographic databases, except for conference papers ;
- Grey literature on bioeconomy, especially reports, preprints and PhD theses, is more visible in open repositories ;
- Identification and retrieval of grey literature on bioeconomy with the usual discovery tools is not easy ;
- Most respondents were rather reluctant to use grey literature (reports, preprints, PhD theses). The perceived advantage is novelty and diversity ; but they are concerned about poor (uncertain) quality.