# Developing a wiki-integrated workflow to build a living review on just sustainability transitions

Adélie Ranville Grenoble Ecole de Management Romain Mekarni Data Player

Arthur Perret Université Jean Moulin Lyon 3 Techr

Finn Årup Nielsen Technical University of Denmark Rémy Gerbet Wikimédia France

Dariusz Jemielniak Kozminski University

### Abstract

This research proposal focuses on developing a living literature review on just sustainability transitions, addressing the challenges of information overload, knowledge synthesis and dissemination in academic research. We aim to assess the potential of Wikidata for creating an enriched, searchable academic knowledge graph on just sustainability transitions in order to facilitate navigation of existing academic knowledge and synthesis of research findings. To do so, we will conduct a meta-review of existing literature reviews, aiming to synthesize their findings by making the data they include interoperable and compatible with linked open data standards. Utilizing Wikidata, the project will collect and enrich bibliographic data, extract research results, and build a knowledge graph. The final output will include a literature review academic paper linked to this knowledge graph and a technical report about the challenges encountered in our literature review workflow. The project aligns with Wikimedia's strategic goals by contributing to filling content gaps on an important topic and by proposing an innovative way to build and disseminate social sciences results that could improve expert contribution to Wikimedia project and content trustworthiness.

### Introduction

Just sustainability transition refers to the process of shifting towards sustainable practices in a way that is equitable and inclusive. It includes dimensions of procedural, recognition, distributive and reparative justice and the concept is related to climate justice,

environmental justice and energy justice (Heffron, 2021; McCauley & Heffron, 2018). The study of sustainability transitions in social sciences requires dynamic and adaptive research synthesis methods. Sustainability transitions involve complex, multi-level processes influenced by technological, economic, social, and policy factors (Geels, 2020; Geels & Ayoub, 2023; Sovacool et al., 2025). Given the rapidly evolving nature of sustainability-related research, static literature reviews often become outdated, limiting their usefulness for policymakers, scholars, and practitioners. A living literature review continuously updated with new findings - ensures that emerging insights, case studies, and theoretical developments are integrated cumulatively into the knowledge base. Developing such review will answer the call for more evidence-based practices in management sciences (Kepes et al., 2014; Pfeffer & Sutton, 2006). Our project assesses the potential of Wikidata to build living review workflow on sustainability transition. We address three issues encountered by scientists: information overload, knowledge synthesis and results dissemination.

# The problem of academic information overload

Global scientific output doubles every nine years (Richard Van Noorden, 2014), pushed by the "publish or perish" model incentivizing researchers to increase the quantity of research outputs. Researchers are subject to information overload as the number of publications to read is beyond what a human brain can handle, they are expected to produce high-quality research under an increasing time pressure. This intensification of academic work is being denounced as detrimental to the deep cognitive process needed to actually produce interesting knowledge (Hartman & and Darab, 2012). "Wikifying science" may in this context contribute to facilitating researcher's work while preserving scientific quality (Ranville, 2025).

The project aims to build a searchable academic publication database with enriched meta-data that will allow scholars to navigate the existing publications corpus related to just sustainability transition more easily.

#### The problem of knowledge synthesis

The volume of academic production is rendering knowledge synthesis difficult. Scholars have thus called for making literature reviews cumulative and updatable (Vaganay, 2017) and for shifting from static text format publications to dynamic knowledge mapping (Krlev, 2019). This call is being answered through the development of living literature reviews (e.g. Elliott et al., 2017; Uttley et al., 2023). While such reviews method exist for quantitative research producing standardized results, they are not adapted to synthetize social science studies on sustainability transitions that involve diverse methodologies and various disciplinary perspectives.

The goal of the project is to propose a demonstration of a living review method for social science findings on just sustainability transition, relying on the collaborative model and tools of Wikimedia projects notably Wikidata, Wikiversity and Wikipedia.

## The problem of scientific results dissemination

There is urgent need to disseminate knowledge on impactful topics like sustainability transition while proprietary publication models, disinformation and censorship (e.g. US) is threatening access to free and reliable knowledge. In parallel, social scientists struggle to make their work impactful (Haley, 2023). Wikipedia is a key knowledge dissemination platform widely used by students (Sunvy & Reza, 2023) and scientists themselves, as shown by the fact that articles used as sources on Wikipedia are more cited in the literature (Thompson & Hanley, 2018) and that some scholars cite directly Wikipedia (Dooley, 2010). However, scientists do not naturally contribute to wikimedia projects as part of their work because of lack of incentives (Chen et al., 2024; Kincaid et al., 2021), but also other factors such as lack of time, lack of recognition and fit with scholarly workflow (Taraborelli et al., 2011). In addition, expert participation is not immune to the gender gap (Taraborelli et al., 2011) and because of gender segregation in disciplines (Ceci et al., 2014), this may be detrimental to the content coverage on "female" topics (Lam et al., 2011), notably for social science in which women are more present.

Our project proposes to improve expert contribution by making wikimedia projects (notably wikidata) useful tools that can facilitate research work, in addition to a key knowledge dissemination platform that is not country or institution-dependent. We propose to approach Wikimedia projects as a powerful (and free) knowledge management infrastructure that researchers could use.

#### Potential impacts for Wikimedia projects

Our project goals is to evaluate potential sociotechnical solutions to conduct living literature reviews using Wikimedia projects. We have two objectives aligned with the strategic priorities of the Wikimedia movement.

#### Objective 1: Test how Wikimedia projects can be used as open science infrastructure integrated in researchers' everyday literature review workflow This project goal contributes to Wikimedia's objective by assessing how Wikimedia projects can be used as

by assessing how Wikimedia projects can be used as innovative collaborative open science infrastructure for disseminating scientific knowledge (<u>Innovate in</u> <u>Free Knowledge</u>, 2030 Strategic direction). Our study will also allow a deeper understanding of the barriers encountered by academic contributors for contributing to Wikimedia project. This is important because experts are valuable contributors to make content reliable (<u>Deliver trustworthy encyclopedic content and</u> fuel volunteer growth, Multigenerational strategy).

#### Objective 2: Contribute to fill content gaps in Wikimedia projects by contributing on an important topic (just sustainability transition)

This project goal contributes to Wikimedia's objectives of developing important datasets and

addressing content gaps (Abián et al., 2022; Redi et al., 2021) on an important topic (<u>Identify Topics for</u> <u>Impact</u>, 2030 Strategic direction) such as just sustainability transition.

#### Question & hypothesis

#### How can Wikimedia projects contribute to building a collaborative living review on just sustainability transition ?

- **Hypothesis 1:** Wikidata can be used to enrich scientific item metadata and build living scientific corpora with rich annotations.
- Hypothesis 2: Wikidata can be used for scientific knowledge modeling through statements using scientific items as reference (e.g. conceptual typologies, cause-effect chains...).
- **Hypothesis 3:** SPARQL-based queries and visualizations can be used to navigate scientific corpora and scientific knowledge graphs.
- **Hypothesis 4**: Wikimedia or Wikiversity pages can be used to write literature reviews collaboratively in text format augmented by interwiki links (following the ideal of linked open data).
- Assumption 1: Wikimedia projects have to be integrated into validated scientific protocols in order to be a valuable research tool.
- Assumption 2: Wikimedia project contribution has to be made interoperable with tools, methods and data types already used by researchers.

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## **Related work**

Existing methods for living literature reviews (e.g. Elliott et al., 2017; Uttley et al., 2023) generally rely on automated data extraction from very standardized research findings stemming from quantitative research and follow statistical meta-analysis methods. Social science research and especially qualitative research produce a wide diversity of research findings such as fine-grained interpretations of concepts, typologies, causal mechanisms, processes and complex

interactions that cannot be summarized by classical statistical meta-analysis method. Without rejecting the potential of automation tools, we propose to explore a more crowdsourced model of living literature review that could map qualitative and heterogeneous research outputs. This section presents existing tools that researchers already use to conduct literature reviews, their limits and potential for conducting collaborative living literature reviews.

#### Bibliographic data management

Many private databases (WOS, Scopus...), public or community databases and archives (HAL, Zenodo, Huma-num, Nakala, OpenAlex, Istex ... ) encounter the issue of indexing large corpus of academic production as producing quality meta-data remains an issue. For scholars, navigating such "knowledge sea" is a challenge. Various services (Connected papers, Litmap, Research rabbit, Researchgate...) propose new ways for researchers to navigate academic corpus but the underlying methods (e.g. recommendation algorithms, citation graphs) is sometime at odd with the scientific method of literature review that requires filtering scholarly items on precise criteria (topic, quality, methods, theories...). Wikidata presents the potential to facilitate such navigation through the enrichment of scholarly item metadata and the possibility to write precise queries to filter items according to such criteria. The project wikicite already made possible the integration of scholarly items metadata in Wikidata. However, there are still missing tools to make scholarly item importation and dataenrichment easy for researchers with low computer skills (e.g. synchronisation with Zotero, reconciliation through Open Refine), qualitative researchers may encounter barriers while their precise knowledge of concepts and meaning can be key to build and validate conceptual ontologies.

# Analysis method to extract and visualize knowledge from academic items

Researchers employ a diversity of methods and tools during literature reviews to analyze existing publications and synthesize knowledge from academic items, for example:

• Manual coding: Computer-assisted qualitative data analysis software (Atlas.ti,

HyperRESEARCH, NVivo, The Ethnograph...) allows rigorous, precise and qualitative data analysis and structuring. However, the data coding functions only allow identifying hierarchical structure of information and export functions are limited.

- **Text annotation:** Text annotation tools (Doccano, Tagtog, Brat...) are originally used to build text corpora to train artificial intelligence. They have the potential to be used for qualitative analysis (e.g. Garigliotti et al., 2023) through their ability to make user annotations machine-readable. However, their use in qualitative social research remains scarce.
- Lexicometric analysis: Lexicometry softwares or plateforms (Tropes, Alceste, Iramuteq, Sphinx, CorTexT, Gargantext, <u>open knowledge map</u>...) allows to analyse quantitatively the presence of topics through the co-occurrence of words and clustering of themes within academic text. This technique is used to identify thematic clusters but is limited to understanding precisely the meaning behind word co-occurrences.
- **Bibliometry:** Online plateforms offer services to explore academic literature through citation graph visualisation (<u>Connected papers, Litmap, Research</u> <u>rabbit</u>...). <u>Scholia</u> is the equivalent in the Wikimedia ecosystem.
- Large language models: LLMs can be used for literature reviews as powerful tools for filtering and categorizing articles, extracting data (e.g. named entity recognition and relation extraction). Using these tools in a reliable way requires deliberate and careful prompting, transparency in reporting the analysis process, and human validation (Alshami et al., 2023, Lieberum et al., 2025). Some platforms offer academic generative AI summaries and review writing (SciSummary, Scanlit...).
- Scholarly knowledge graphs: Knowledge graphs (<u>Open Research Knowledge Graph</u>, <u>Wikipathways</u>...) have potential to provide an efficient, coherent and durable scientific knowledge base that can be searched and visualized. Knowledge graphs with queries

are more efficient than LLM to store and retrieve information on the long term due to LLMs high calculation time, languagedependence and incoherence (Groth et al., 2023; Vrandečić, 2023).

• Graph visualisations: Wikidata can be used to build scholarly knowledge graphs and many visualizations can be generated from SPARQL queries with tools such as <u>Scholia</u> or Synia (Nielsen, 2023; Nielsen et al., 2017) which proposes visualization from Wikidata.

#### Validating scientific contributions

Despite a positive attitude of scholars toward Wikipedia and hopes that it could become a hub for scholarly information, its status as a reliable source of academic knowledge has always been debated (Okoli et al., 2014). We will thus explore if and how contributions to Wikimedia projects can be made compatible with the criteria of the scientific method. For example, it would be possible to track which part of the wikimedia content is actually peer-reviewed and made by scientists (using DOIs and ORCIDs identifiers). We will also experiment publishing peerreviewed versions of the contributions made during this project.

## Track and recognize researchers contributions

Tracking new forms of open scientific contribution is key for scientists who need to make their work recognized institutionally. Several tools and methods exist to do so in Wikimedia projects (<u>Wikimedia</u> <u>Dashboard, XTools, Pageviews, impact metrics</u> <u>project...</u>). Outside Wikimedia, GitHub statistics monitor software contributions, while ORCID provides researcher identification for tracking scholarly outputs. Platforms like <u>ResearchEquals</u> and <u>Octopus</u> support modular publishing, allowing incremental and open dissemination of research outputs.

## Methods

Our study will rely on a meta-review, that is a review of existing literature reviews. Data presented in literature reviews are usually presented as tables or diagrams, and sometimes provided as supplementary materials in publications. However, these data are not made interoperable and are not used to update prior literature reviews. Our goal will be to synthesize results of previous literature reviews by making their findings compatible with linked open data and open science standards using Wikidata, Wikiversity, Wikipedia and other open-science infrastructures. We will collect and enrich bibliographic data, extract research result data to build a knowledge graph, propose relevant visualization of this graph and write a literature review report linked with our knowledge graph, making scientific writing compatible with the linked open data ideal.

#### Data collection

Various database sources that can be used to perform bibliographic analysis: Web of Science, Scopus, Google Scholar, Microsoft Academics (now Open Alex), Dimensions, Crossref, COCI, etc. (Harzing, 2019; Martín-Martín et al., 2020). We will search relevant databases with precise keywords to identify existing literature reviews on just sustainability transition (e.g. "just sustainability transition" AND "review"). Ideally, the review will be systematic and involve all relevant articles. We will import academic references into Wikidata. During this process, we will **test Hypothesis 1** and explore the advantages of constituting a scholarly corpus on Wikidata in comparison (or in complementarity) to existing tools used by researchers such as:

- Reference management software: Reference management software (Zenodo, Mendeley...) are used to collect scientific item metadata and integrate them into academic writing. They can also be used to analyze and annotate academic articles and can include export functions making the data interoperable with other analysis tools.
- Knowledge management software: Knowledge management software (Cosma (Perret et al., 2023), Obsidian, Zettlr, Room Research, Notion, Logseq, Reflect...) are used by some researchers to organize their

ideas but are generally not used as part of a literature review methodology.

The semi-manual import we will implement is more compatible with Wikidata than the automatic import of academic items through scraping as this (abandoned) practice generates large amounts of data likely to congest SPARQL queries later on on Wikidata.

#### Data extraction and structuration

The review papers will be analyzed by extracting the available structured data (e.g. bibliographic reference lists, tables, "bow and arrow" diagrams, databases...). We believe Wikidata could be useful to model results from thematic networks analysis (Attride-Stirling, 2001) concept mapping (Lewis 2016; Pope 2016) or system mapping. Structured data present on academic papers will be used to inductively identify which properties would be needed to import these data into Wikidata. This analysis will lead to the draft of an ontology for social science publications and results<sup>1</sup> (possibly a Wikidata Schema). Then the data from the review papers will be imported into Wikidata with the objective to create a knowledge graph. This process will allow us to test Hypothesis 2 and understand how Wikidata can be used for knowledge modeling. All statements created will include the source academic item as reference, ensuring content trustworthiness and conformity with scientific criteria of rigorous process.

### Visualization and corpus navigation interface

The resulting knowledge graph will be analyzed through SPARQL queries (bibliometric analysis, conceptual mapping, corpus filtering...) and we will propose pages allowing users to explore our knowledge graph with custom queries. We will rely on existing Wikidata <u>visualisation tools</u> and the Scholia project. We may propose and develop new pages and <u>use cases for Scholia</u>. Our analysis will be used to structure existing research findings and identify possible scientific consensus or research gaps. Particular attention will be given to the question of how we can ensure the scientific reliability of an

<sup>&</sup>lt;sup>1</sup> This step will rely on ongoing data model projects : www.wikidata.org/wiki/Wikidata:WikiProject\_Wikid ata\_for\_research/Data\_models/Social\_science\_results

www.wikidata.org/wiki/Wikidata:WikiProject\_Wikid ata\_for\_research/Data\_models/Scholarly\_article

analysis based on a collaborative platform like Wikidata (e.g. propose ways to track and filter only the subgraph we built using academic sources). This process will allow us to **test Hypothesis 3**.

#### Figure 1 - Methodology



*Figure 2 - Potential use of Wikimedia projects in the scientific literature review workflow* 



#### Writing

To test Hypothesis 4, our academic paper will be written on a Wikiversity page in which we will experiment collaborative academic writing including hypertextual elements. We will experiment with interwiki links between Wikidata, Wikipedia and Wikiversity notably for concepts, theories, notable empirical phenomena (e.g. public policies) and references (with the Cite Q template). Our idea is that the page is a written version of a knowledge graph. We may also explore the possibilities to cite Wikidata items outside of the Wikimedia system in other writing tools (e.g. Latex, Stylo, Word...) and reflect on hypertextuality in academic writing (Parra & Perret, 2023; Perret, 2019, 2020). Our literature review will then be turned into an academic paper and submitted to a journal open to this experimental writing form, for example through a community-recommended preprints platform (e.g. peer community in organisation studies). Our expected results include substantive findings on just sustainability transition and methodological recommendations for making living literature reviews relying Wikimedia projects.

#### Workflow analysis

The technical and methodological problems encountered in the steps described above will be investigated, documented, and solved if possible (e.g. user interface, interoperability issues...). If relevant we will rely on previous work such as <u>Wikipedia</u> <u>workflow analysis</u> and <u>contribution taxonomy</u>. We will assess which barriers social scientists without technical computer skills may encounter if they want to reproduce our methodology and we will provide recommendations on how to lower such barriers. Our report will also include guidelines on how social scientists can use our method to make their work compatible with open science standards by relying on Wikimedia projects.

## **Expected output**

Our project is organized in 3 work packages each including precise deliverables (D) or event participation (E).

WP1: Conducting a living meta review on just sustainability transition using Wikimedia projects

- D1.1: An academic Wikidata graph on just sustainability transition supported by academic references and relevant SPARQL queries to navigate the graph.
- D1.2: An academic paper presenting a metaliterature review of existing reviews on just sustainability transition including our detailed methodology.

## WP2: Data engineering and user workflow assessment

- D2.1: Technical documentation of the method workflow, identifying existing, missing or incomplete tools (ex : Zotero-Wikidata synchronisation)
- D2.2: Small developments addressing workflow gaps (ex : zotero script, open refine data model, new wikidata properties, <u>Wikidata Schema</u>, export/import between mediawiki and word document...)

WP3: Dissemination and community building

Audience 1: Social science researchers

- E.1: Academic conference presentation at a social science conference (ex: RC33 International Conference on Social Science Methodology, Knowledge Graphs for Sustainability Workshop – KG4S) to share our new living review workflow.
- E.2: Wikidata & Wikipedia Editathon on sustainability research
- Audience 2: Wikimedia researchers
  - E.3: Presentation within the wikimedia community (ex: Wiki Workshop, Wikimania)
  - D3.1: Updated project page on meta.wiki
  - D3.2: Research grant application targeting open science infrastructure funds (<u>OSCARS</u> <u>Open Calls</u>, <u>The navigation fund</u>, <u>Fond</u> <u>national pour la science ouverte</u>, <u>PEPR</u> <u>eNSEMBLE : « Collaboration Numérique</u> »).

Audience 3: Wikimedia community

• E.4: Presentation at a french-speaking Wikimedia community event (ex : Wikifranca *Wikiconvention Francophone*) Project planning: September 2025 - August 2026

theme of data interoperability in circular economy initiatives. It is working closely with the non-profit "*L'assemblée virtuelle*" which aims to develop

			Project month											
	Leaders	Advisors	1	2	3	4	5	6	7	8	9	10	11	12
D1.1 : Building wikidata graph (data collection)	AR+RA	RM, FAN			x									
D1.1 : Building wikidata graph (data analysis)	AR+RA	RM, FAN							x					
D1.1 : Building wikidata graph (data viz)	AR+RA	RM, FAN									x			
D1.2 : Writing academic paper	AR+RA	AP, DJ												х
D2.1 : Writing technical documentation	RA+RM	AR, AP												х
D2.2 : Technical developments	RA+RM	FAN, AP	x			x				x				
D3.1 : Updated Meta.wiki page	RA+AR	RM												х
D3.2 : Grant(s) application writing	AR+RA	RM, RG, FAN			x									
E1-4 : Dissemination events	RA+AR	RG, RM					х					х		
*Research Assistant (RA), Adélie Ranville (AR), R	omain Meka	rni (RM). Arthur l	Peri	ret		). F	Rém	1V (	Gerl	bet	(RC	G).		

Dariusz Jemielniak (DJ), Finn Årup Nielsen (FAN)

*Table 1 – Project timeline* 

Competencies of the research team

#### Adélie Ranville

Adélie Ranville is Post-doctoral researcher in management at Grenoble Ecole de Management, her research focuses on sustainability transition and the interaction between knowledge and society. She has published several papers on sustainability topics. She is a Wikimedia contributor since 2014 and has been an active member of Wikimedia France, animating training and Editathons. She is interested in the use of semantic web technologies for qualitative research in social science.

#### Romain Mekarni (Data player)

Romain Mekarni is a cybersecurity engineer and member of the cooperative Data Players. Data Players is developing free software based on open standards and semantic web. It is committed to the development of projects of general interest, with a focus on highly cooperative approaches. Data Player is at the center of a software developer community and facilitates collective projects and fundraising. It is currently cofunding with the public agency ADEME a PhD on the decentralized and federated information systems serving sustainability transitions.

#### Rémy Gerbet (Wikimédia France)

Rémy Gerbet is executive director of Wikimedia France. He coordinates the association's actions to promote open knowledge, support Wikimedia contributor's groups and develop strategic partnerships. He is also active in international open knowledge networks and regularly speaks at conferences and workshops on digital regulation and the commons.

#### **Arthur Perret**

Arthur Perret is Assistant Professor of Information and Communication Sciences at Université Jean Moulin Lyon 3. He studies the data, documents and devices involved in knowledge work. He designed Cosma, a visualization program for hypertextual scientific documentation, which he uses to investigate knowledge organization processes.

#### Finn Årup Nielsen

Finn Årup Nielsen is Associate Professor at the Technical University of Denmark. He has conducted research on knowledge graphs, semantic representations and Wikimedia projects. He created Synia and is maintaining the project Scholia. He has been a long-time contributor to Wikipedia and Wikidata and is Chairman of Wikimedia Denmark.

#### Dariusz Jemielniak

Dariusz Jemielniak is full professor of management at Kozminski University. His research focuses on social data science and open collaboration projects. He is the author of *Common Knowledge? An Ethnography of Wikipedia* (Stanford University Press, 2014) and contributed to several publications on Wikimedia projects.

### **Risks**

**High number of papers to process:** Making a systematic review of all existing reviews may result in a too high number of papers. If that is the case, we will select a more manageable sample of paper based on criteria of quality, thematic relevance and diversity of methods/data format.

**Slow responses from the Wikidata community:** deliberation time in the community (e.g. for the creation of new Wikidata properties) may slow down the project and prevent data import. This will be mitigated by mobilizing the community contributors and project partners. If the properties cannot be created, less precise properties may be used or part of the data will not be imported.

**Data cleaning time:** The diversity of characteristics, inconsistent formats, quality concerns, and lack of standardization in current scientific practices may lead to challenges in reusing and aligning concepts, naming conventions, formats, and attributes. If data are too inconsistent, we will focus on specific types of data such as definitions, typologies or cause-effect maps.

## Community impact plan

Our community impact plan is to connect Wikimedia communities and research communities around two topics: open science and sustainability.

# Wiki for research and open science communities

We will collaborate with the Wikimedia community Wikidata for research (Wikidata for research, wikicite, <u>Wikidata <-> Zotero...</u>). We will evaluate how current projects, applications, and visualization tools can be reused and improved. If needed, we will suggest functional improvements or submit code pull requests to modify these tools (notably with <u>Scholia</u> and the <u>Zotero community</u>). We will develop synergies between Wikimedia communities and Open Science communities (<u>NumFocus</u>, <u>OSS Open Source</u> <u>Science</u>...) and social science methodologists, notably through the writing of a research grant application targeting open science infrastructure funds (WP2 -Deliverable 3.3).

Our project will in synergy with Wikimédia France's actions for open science. The association helps research institutions and universities to open up their content to Wikimedia projects, in particular Wikipedia, Wikidata and Wikimedia Commons. It participates in national working groups on open science, such as those linked to the Committee for Open Science (CoSO). With the signing of a partnership with the Ministry of Research and Higher Education, Wikimedia France organizes workshops, training courses and events, in particular by setting up a network of Wikimedians in residence. These initiatives will provide opportunities to increase the impact of our dissemination activities (WP3).

# Wikimedian for sustainable development and sustainability researchers

We will communicate and look for synergies with Wikimedia communities and projects active on the topic of sustainability (Wiki loves Sustainable Development Goals, Wikimedians for Sustainable Development, Visualizing sustainability and climate change on Wikipedia, Sustainability + Biodiversity topic classification...) and follow their recommendations (e.g. use Sustainable Development Goals Wikidata property). We will build the interaction between Wikimedia communities and communities interested in linking sustainability knowledge and semantic web (e.g. Knowledge Graphs for Sustainability Workshop - KG4S, Assemblée Virtuelle...).

### **Evaluation**

Our project will be successful if we have produced all the expected outputs and deliverables described above. Additional measure of the success and impact of our work may include:

- Quantification of our contributions in Wikimedia projects tracked through a project dashboard.
- Positive feedback from: participants to dissemination events, reviewers of our academic publication, Wikimedia online community members...
- Views, citations and reuse of our published deliverables.

### Budget

The funds requested include budget for the following expenses:

- A 12 months full time post-doctoral researcher or research assistant position
- Travel and registration for 1 researcher to present findings at an academic conference
- Travel for 1 researcher to present findings at 2 Wikimedia events
- Travel for 1 in-person project meeting for the project team
- Administrative coordination timeSoftware development time

Details: <u>Budget spreadsheet</u>

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