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Characteristics of European Universities that Participate in Library Crowdfunding Initiatives for Open Access Monographs

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Abstract: The aim of the study was to identify the traits of 100 European universities across 26 countries that did or did not support one particular library crowdfunding initiative for open access (OA) monographs over the past few years. By relying on the rankings of four sources, including THE, ARWU, QS, and Leiden, the study identifies some of the traits of the universities that have shown strong interest in the model by already taking part in an established library crowdfunding initiative, as well as those that may play a vital role in its sustainability. The study's results show that the institutions that are likely to participate in library crowdfunding initiatives for OA monographs may be defined as highly ranked and produce research in quantity, quantity, relevance, and timeliness. The study's key revelation is the high academic standing of the institutions that rarely participate in one crowdfunding initiative. These institutions may not be as "international" in their outlooks, but they stand out for their high-quality and significant research output. As such, they may accelerate the model's adoption with more consistent participation in library crowdfunding.

Keywords: open access publishing; open access monographs; open access scholarly books; library crowdfunding; open access business models; sustainability of open access business models; sustainability of open access monographs

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1. Introduction

Since its beginnings, the open access (OA) movement has been growing in many ways. It was designed to remedy the "perceived failings" of the broken publishing system,

which mainly concerned the rising prices of journal subscriptions [1]. For this reason, the story of OA began with journals and institutional repositories (IRs), with some scholars still associating the story of OA with journals exclusively. However, other types of scholarly content have since been published OA, including, for example, conference proceedings, scholarly videos, scholarly blogs, and monographs.

In 2015, Pinfield identified the dominant themes in the analysis of OA publishing: uncertainties around the green vs. gold OA possibilities; the development of evidence to inform OA discussions; researchers' disinterest in and skepticism about OA; policies or so-called "mandates" that encourage OA; OA infrastructure (i.e., repositories); the emergence of OA journals; the OA-related challenges for institutions; and the impact of OA content beyond citation scores [2]. One notices the absence of academic books (i.e., monographs) after examining these early themes. While studies were already underway that considered the possibilities of OA monographs at the time [3,4], they were in their early stages. The idea of publishing monographs OA, in fact, is still considered to be in the early stages [5].

Therefore, academic journals and IRs were the first "delivery vehicles" that dominated the distribution of OA content and the low-hanging fruit of the OA movement from its start [6]. This was because journal authors had little to lose from publishing OA. Unlike article authors, book authors receive advance payments and royalties for monographs. Although these payments may not be as high as the advances and royalties earned in commercial publishing, book authors do not want to lose these royalties. The fact that authors do not receive financial compensation for publishing articles means that there is little interest in protecting any income by restricting access to articles. This, however, is the key trait of print monograph publishing [7]—access must be restricted only to those that purchase it or buy rights to access it, such as libraries. In addition, journal articles are much shorter than monographs, which makes them less risky investments. Conversely, monographs involve significant assets [8]. Owing to the sheer number of stakeholders involved in the production of monographs, the business models that would make the publishing of OA monographs possible needed an entirely different approach [9].

1.1. The Emergence of OA Monographs

The monograph—which may be described as "a long, academic and peer-reviewed work on a single topic normally written by a single author, and also extended to include peer-reviewed edited collections by multiple authors" [10]—is a vital medium through which the humanities achieve impact [11]. Authored books have an important place in the humanities and social sciences (HSS) [12]. Further, the publishing of monographs through university presses has formed an essential component of the tenure evaluation for scholars [5]. Moreover, the monograph has remained "the" vehicle for articulating arguments from extensive research. As Cheshire puts it, "If the academic monograph is no longer valued, why do we require an 80,000-word thesis from doctoral students?" [13]. In short, publishing a thesis as a printed monograph is still "the proxy for being recognized as serious researchers" [14].

Notwithstanding its relevance in the HSS community, the monograph has been in a state of crisis since the turn of the century [5], or since the OA movement began to shift the direction of academic publishing. This is one reason why OA monographs have taken a while to catch up to OA journals [15,16]. The landscape of the business models for OA monographs is now expanding owing to the demand from scholars, funders, and the public to make scholarship widely available [17]. Today, OA publishing has become an integral part of the businesses of publishers—corporate and nonprofit alike—including university presses. In fact, new kinds of university presses have begun to emerge that are committed to OA and "born digital" content [18].

As the Ithaka S + R Faculty Survey recently showed, scholars now recognize that the importance of the print monograph has declined, and that monographs in digital format remain essential for their teaching and research [19]. According to a recent study published in the *Journal of Librarian and Information Science*, academics' awareness of OA increased significantly during the pandemic [20]. In mid-2019, the Directory of Open Access Books (DOAB) listed fewer than 20,000 OA books, compared with some 86,000 monographs published internationally every year [21]. In late 2022, the DOAB listed 62,500 OA books, which is a significant jump in a relatively short period. A strong argument could be made that the limiting conditions of the pandemic contributed to the increase in the awareness of the need to accelerate OA publishing, including monographs.

There is a growing interest in European countries in investing in OA monographs. The Plan S initiative for OA publishing is a good example. Launched in September 2018 by cOAlition S, a global consortium of research funding organizations, Plan S advocates that scientific publications that are funded by public money must be published OA. As stated on the European Science Foundation's website, cOAlition S's main principle is tied to the following statement: "With effect from 2021, all scholarly publications on the results from research funded by public or private grants provided by national, regional and

international research councils and funding bodies, must be published in Open Access Journals, on Open Access Platforms, or made immediately available through Open Access Repositories without embargo" [22].

In its current statement on open access for academic books, the coalition states that it "recognizes that academic book publishing is very different from journal publishing. Our commitment is to progress towards full open access for academic books as soon as possible, in the understanding that standards and funding models may need more time to develop" [22]. Further, the UK Research and Innovation funding council announced its OA policy in the summer of 2021. It states that academic books, including monographs and edited chapter books, must be published OA from January 2024, with a permissible one-year embargo. This development has resulted in UK researchers questioning the ramifications of OA book publishing [16].

Although their OA funds have primarily focused on OA journals, librarians have generally supported the progress of OA monographs. The OAPEN-UK 2014 librarian survey was among the first that revealed how positive librarians were about OA monograph publishing in its nascent phase [4]. The same survey showed that 80% said that they would support OA monograph publishing as a matter of principle, and that they were willing to fund the publishing of OA monographs in the face of uncertainties, lack of experience, and pressures imposed on them by the rising costs of monographs. A 2022 survey of European librarians also confirmed their interest in supporting OA monographs as a matter of principle [23].

1.2. Business Models for OA Monographs

Various business models have been tested to determine how to publish OA books in financially viable ways for authors, publishers, and researchers, and that do not call into question the integrity of either authors or publishers [24]. Collins et al. [3] first identified the following business models for OA monographs: the author payment model (the author pays a fee to the publisher, known as a book processing charge, or BPC); the selective open access model (other activities of the press subsidize monograph publishing); the collaborative underwriting model (libraries join forces to meet the price of a publisher set for a title to become OA and share the cost); the crowdfunding model (publishers pitch a title and seek funding from the "crowd," which can include individuals or institutions); the embargo/delayed OA model (a monograph is released OA after a publisher has had time to gain revenue from the sale of the title); the new university press model (new university presses emerge at institutions and receive subsidies for publishing); the freemium model (the basic version of the monograph is free, while the premium version, with more content and features, is sold in a different format).

Speicher et al. [25] also divided the OA models into several groups, some of which overlap with Collins' approach: the author processing charge (APC) model (authors pay publishing fees); the freemium model (one simple version of the work is free, while others are not free); the collaboration model (institutions join forces to open knowledge globally); the community model (researchers in specific disciplines join forces with the common goal of making the literature in their field OA); the library model (libraries cover the cost of OA publishing).

To date, no model has become dominant, as each faces unique challenges [25]. The APC model, for example, recognizes the costs behind quality publications that need to be financed, but little funding is available to HSS scholars. The freemium model works to generate extra revenue for the publisher, but it remains unclear if it is beneficial in the long run. The collaboration model brings together communities with similar views and goals, but it must prove its sustainability. The community model brings publishing to the academic community, but funding and resources remain an issue. If budgets are not an issue, then the library model works well with the existing library workflows and distributes funds similarly to how funds are allocated for subscriptions. However, it can only succeed if libraries continuously set aside funds for OA monographs.

Informed by these two breakdowns, OAPEN published its list of updated business models for OA book publishing in 2022 [26]: book processing charges (BPCs); the freemium model; institutional subsidies/new university presses; library membership; library consortiums (institutional crowdfunding); subscribe to open (libraries subscribe to collections of closed-access books, and the subscription fees are used to fund OA for new books); crowdfunding (individuals pledge fees to make a book OA). "Library crowdfunding"—the term used in this paper— was also identified as a specific revenue model two years earlier in a COPIM report and defined as an intermediating platform "connecting publishers to 'unlock' or 'unlatch' a title" [27].

1.3. The Library Crowdfunding Model

The scholarly community has, over the years, reiterated the importance of collaboration in the publishing ecosystem [28]. Because collaboration is about joining forces and sharing, the library crowdfunding model encourages libraries to share the cost of publishing peer-reviewed OA monographs to take the financial burden off researchers [29]. For this reason, the model has been considered innovative and possibly sustainable long term [30]. In this model, libraries worldwide join forces to "open" a number of scholarly monographs (or collections of monographs) every year because they have similar beliefs regarding how scholarly content should be published and made available [31]. The money collected from the participating institutions is then distributed to publishers and authors to cover the cost of the BPCs.

The crowdfunding model's advantage is that the funds collected from the participating libraries are used to cover author fees. When enough funds are collected, selected monographs are published OA with various Creative Commons (CC) licenses assigned to them. They then become available to the institutions that fund them, and to any user online [32]. Several OA initiatives rely on institutional crowdfunding to finance the publishing of OA monographs, both frontlist titles (never-before-published titles) and backlist titles (older books that already exist in print and are being permanently "flipped" to OA), including, for example, Reveal Digital, Unglue.it, and Knowledge Unlatched [33].

As explained on its website, Reveal Digital "collaborates with libraries to produce OA primary source collections from under-represented voices." Libraries can participate in three ways: via a one-time contribution model (to support a single collection or project), via multiyear funding to a publishing program, and by contributing content to collections [34]. Unglue.it is rooted in the idea that "the gifts from many readers can free e-books from the DRM [Digital Rights Management] chains that bind them" [35]. Once a funding goal for a title is set, the organization collects pledges from individuals or institutions and distributes the collected funds to the rights holder, who can publish an OA title under a CC license. The model started by primarily focusing on commercial backlist titles, but it eventually included frontlist monographs [36]. Unlike Unglue.it, Knowledge Unlatched (KU)—the focus of this study—aims to provide open access to books from established scholarly publishers by inviting libraries to support large batches of books [33]. The libraries that participate each year form a global consortium that collectively funds the publishing of OA monographs via KU.

Many factors influence an institution's decision to participate in library crowdfunding initiatives, including, for example, it's budget, the local significance of the content published, the author's affiliation with the institution, the reputation of the crowdfunding initiative, etc. Previous research has indicated that the budgets of institutions are a strong reason why libraries participate in crowdfunding initiatives for OA monographs. Surveys have also shown that one of the main reasons that institutions participate is the belief of librarians in the principle of OA. Further, librarians are more likely to support OA content that is closely tied to their institution's research interests [23].

1.4. Knowledge Unlatched Crowdfunding Initiative

The COPIM report identified KU as the initiative that pioneered the library crowdfunding model [27], and OAPEN's most recent list of available models for OA monographs also identifies it as the key example of "institutional crowdfunding" [26]. Since the 2013 pilot, KU has been "unlatching" new collections of OA monographs every year and has facilitated the publishing of about 4000 monographs, with over 670 institutions participating in the crowdfunding to date [37]. It is best known to libraries for KU Select HSS Books, a multidisciplinary collection of peer-reviewed monographs in English that cover various HSS disciplines. The titles to be "unlatched" are selected each year by the KU Selection Committee, which comprises over 260 librarians worldwide. The committee members participate each year in a democratic voting process online [37].

After the titles have been selected, libraries worldwide are invited to make "pledges", with the option of supporting the complete KU Select package (frontlist and backlist), Frontlist Only package, or individual subject packages within KU Select (e.g., Anthropology, History, Politics, etc.). KU collects funds from libraries and passes them on to publishers, who then use the funds to publish OA monographs and pay the authors. After the pledging cycle closes, the crowdfunding results are assessed, and the "unlatching" process begins. The more funding KU receives from libraries, the more books from the "planned" KU Select HSS Books collection are published OA.

COPIM's 2021 report on collective funding models [38] identified positive and negative sides to KU's annual library crowdfunding campaign. On the positive side, KU was perceived as providing a large amount of varied content from reputable publishers and given credit for involving librarians in the selection process. Librarians decide which titles will receive support from the crowdfunding efforts, and they may join the Selection Committee regardless of whether their institution participates in the crowdfunding. KU was also perceived as providing libraries with clear assurances around digital preservation and long-term access, as well as being transparent about their earnings. In contrast, KU's transition from a nonprofit entity to a for-profit organization has drawn criticism, disappointing some librarians in the process, who fear that KU's for-profit status—and, most recently, Wiley's acquisition of KU, which was announced in December 2021—might "monetize" the OA movement and compromise its core values [38].

1.5. Rankings as Tools for Identifying University Traits

In the past two decades, various ranking sources have sprung up that claim to offer reliable quantifications of the achievements of universities worldwide, including, among many others, the Times Higher Education (THE) World University Rankings and Academic Ranking of World Universities (ARWU). The methodologies of these sources have been criticized over the years, and mainly the focus on research performance and reputation, which may not accurately reflect the attributes that make up a "quality" university [39,40]. Studies have pointed out that universities in English–speaking countries dominate university rankings [40,41]. Likewise, concerns have been raised about the inconsistencies in the methodologies applied to rank universities, leading scholars to question whether the rankings underserve many institutions, and particularly non-Western ones [40]. While such concerns are valid and the shortcomings of university rankings should be emphasized when used as research tools, they may still provide relevant information to researchers, students, and funders, among other stakeholders, when used responsibly [42]. They may offer a useful international comparative perspective and make an institution's strengths visible [42].

University ranking sources have also been studied for their accuracy [43], stability over time [39], and usefulness in improving research [41]. In OA publishing, they have been studied in the context of OA journal publishing and whether the citation impact of the research articles published OA contributes to improving an institution's ranking [44]. There appear to be no studies that use university rankings to profile institutions that

support a business model for OA publishing, and particularly the library crowdfunding model for OA monographs—the focus of this paper.

Because the aim of this study was to identify the traits of the universities most or least interested in one specific business model for OA monographs—KU's library crowdfunding model—the following four ranking sources were chosen for this research: Times Higher Education, Academic Rankings of World Universities, Quacquarelli Symonds World University Rankings, and Leiden Ranking.

Times Higher Education (THE) evaluates research-intensive universities across their core missions: teaching, research, knowledge transfer, and international outlook. The performance indicators are divided into five areas: teaching (the learning environment); research (the volume of research produced, income, and reputation); citations (the universities' role and impact in spreading new knowledge and ideas); international outlook (staff, students, and research); industry income (knowledge transfer) [45].

The Academic Rankings of World Universities (ARWU) uses six indicators to rank universities, including the number of alumni and professors that have won Nobel Prizes and other awards; the number of highly cited researchers (according to Clarivate Analytics); the number of articles published in *Nature* and *Science*; the number of articles indexed in the "Science Citation Index—Expanded and Social Sciences Citation Index;" the per capita performances of universities [46].

The Quacquarelli Symonds (QS) rankings are based on six key indicators: academic reputation based on its academic survey, which collates the opinions of over 130,000 individuals (40%); employer reputation based on the QS Employer Survey (10%); the faculty/student ratio (20%); citations per faculty (20%); the international faculty ratio (5%); the international student ratio (5 percent) [47].

What sets the Leiden Ranking apart from the other three sources is that it does not use any data obtained directly from universities (e.g., via surveys). Leiden's exclusive focus is on the university performance. It is also the only one of the four ranking sources that examines the impact of the institutions' OA research, measuring the volume and proportion of OA publications [48], which makes it an important—perhaps the most important—addition to this study. Although the data collected by Leiden are focused on OA journal publications and not monographs (the exclusive focus of this study), this is a unique indicator that helps to explain an institution's current commitment to publishing its research OA.

1.6. The Study's Aim and Direction

This paper is a reworked, modified, and updated version of a portion of the author's doctoral thesis ("Sustainability of the crowdfunding model for Open Access academic e-books"), defended in 2021 in English at the Department of Information and Communication Sciences, the Faculty of Humanities and Social Sciences, the University of Zagreb. The tables included were updated in the summer of 2022 to reflect the most recent rankings, and the methodology was revised (the Leiden ranking was not part of the original research) to investigate the library crowdfunding model's sustainability from the perspective of institution rankings to determine the possible characteristics that may be assigned to the European institutions that participate or that are likely to participate in one specific library crowdfunding initiative for OA monographs. The study explores the institutions' traits in the context of only this business model, and only one initiative that is based on the model—KU Select HSS Books—for several reasons:

- KU is the longest-running library crowdfunding campaign, and it is identified as a pioneer of the model [27], with enough history and data to warrant relevant results;
- Owing to KU's cooperation, obtaining accurate information on the annual participation of libraries in KU's initiatives has not presented challenges;
- KU Select HSS Books is a multidisciplinary collection of monographs in the HSS fields most relevant to long-form scholarship;

- KU Select HSS Books is international in its approach, featuring a wide range of international authors and global publishers;
- The "internationality" and collaborative aspects of KU Select HSS Books significantly support the argument that OA must function as a movement that supports international rather than national interests.

The study relies on the data supplied by KU to assess the characteristics of the institutions that participated in KU's annual crowdfunding and, therefore, financially supported the multidisciplinary collection between 2016 and 2021. While KU runs several library crowdfunding initiatives each year, this study only focuses on KU's "in-house" collections: KU Select HSS Books and KU Focus Collection (a "topical" extension of KU Select HSS Books).

The study seeks to answer how various universities "score" according to the four university ranking sources, and how their rankings relate to their participation in KU's crowdfunding campaign over the past six years (the participation data supplied by KU show which European institutions supported KU's legacy multidisciplinary collection over a six-year period between 2016 and 2021). The ranking data used in the study were collected from the websites of the four sources, focusing on five scores/indicators:

1. World ranking—determines an institution's overall reputation on the world stage;
2. Citation impact—determines an institution's role in spreading new knowledge and ideas, and the global influence of its scholars;
3. Research impact—determines the volume of an institution's published research, as well as the reputation and perceived excellence of the published research;
4. Research published open access—determines the proportion of an institution's research that is published OA;
5. Internationality—determines an institution's commitment to international collaboration and its investment in attracting international students and faculty.

To remain impartial and mindful of the constraints of ranking sources, the study adhered to the following principle highlighted in a 2017 blog post on the Leiden's Center for Science and Technology's website [42] regarding the use of university rankings: "An exclusive focus on the ranks of universities should be avoided; the values of the underlying indicators should be taken into account." For this reason, specific indicators (and subindicators)—qualitative and quantitative—were selected from the four ranking sources to highlight the institutions' strengths and characteristics.

As mentioned, no studies have used university ranking sources to determine the characteristics of the institutions that participate in library crowdfunding initiatives for OA monographs. The goal of the study is to add to the growing body of literature focused on OA monographs, and particularly with an understanding of the acceptance of the library crowdfunding model in its early stages, and the determination of the types of institutions that are likely to support it in the future. Although the study focuses on one type of crowdfunding initiative, it aims to give insight into the kinds of institutions that are likely to support similar initiatives with the aims of interdisciplinarity, internationality, and global collaboration.

As surveys confirm, librarians have recognized the role of their institutions in helping to sustain the publishing of OA monographs [23]. While their motives are likely to draw attention, they are not the focus of this study. The study's goal is to serve as a starting point from which initial conclusions can be drawn about the types of institutions that have shown interest in supporting global library crowdfunding by participating in a widely spread and well-known initiative of this kind.

1.7. Research Questions and Hypotheses

By examining the various rankings of European universities, and by focusing on one library crowdfunding initiative for OA monographs, KU Select HSS Books, the study seeks to answer the following:

1. What types of European universities participate in well-established global library crowdfunding initiatives involving various disciplines, authors, and publishers?
2. How do the institutions that participate in library crowdfunding for OA monographs via one library crowdfunding initiative (KU Select HSS Books) differ from those that do not participate (or that rarely participate) in terms of their world rankings, citation impacts, general research output, open access research output, and internationality?

The hypotheses include the following:

1. Research-intensive universities that rank high in their overall reputations and research output will most likely participate in large multinational library crowdfunding campaigns featuring international scholarly content, authors, and publishers;
2. Institutions that do not currently participate (or that rarely participate) in library crowdfunding on a global level are ranked lower overall, have a smaller research output, do not invest in OA research, and are less focused on building international academic communities.

2. Materials and Methods

This research traces the rankings of 100 European institutions in 26 countries that supported or did not support KU's annual crowdfunding initiative for OA monographs, known as KU Select HS Books, over the course of six years (2016–2021). The sample includes institutions from various countries, which ensures a broad scope, variety, and internationality.

2.1. Institutions' Participation Data and Measurements

Each institution in the study was given a Support Score, which ranged from 0 to 6, to reflect the number of times that the institution participated in KU's initiative, starting in 2016 and ending in 2021 (Tables A1 and A2). (These data were provided by Knowledge Unlatched (KU) and reflect each institution's participation on an annual basis for six consecutive years, including 2016, 2017, 2018, 2019, 2020, and 2021. The listing of institutions that participated in KU's crowdfunding initiatives since the pilot is available on KU's website (https://knowledgeunlatched.org/library-partners/ [37]). If an institution received a 0, then it participated zero times; if it received a 1, then it supported KU's collection only once in the past six years, which makes it a "rare supporter". If an institution received a 6, it participated in this crowdfunding initiative every year since 2016, making it a "consistent supporter". It is important to note that this study does not consider the funds that each institution contributed to the initiative. Although pricing is an important factor to consider, the study is not concerned with the amount of funding set aside by each institution, but rather solely with the institution's participation and, consequently, its interest in supporting the publishing of OA monographs via a specific business model.

To establish the necessary averages, the study divided the 100 institutions into 4 distinct groups based on the Support Scores: those that do not support (Score 0); those that support rarely (Scores 1 and 2); those that support often (Scores 3 and 4); those that support the most (i.e., those that participated five or six times in the past six years) (Scores 5 and 6). Those that "support rarely" only supported the initiative once or twice in six years, while those that "support often" supported three or four times. These four groups were further broken down as follows (Table A1):

- Institutions that support the most (Scores 5 and 6): 9 institutions;

- Institutions that often support (Scores 3 and 4): 15 institutions;
- Institutions that rarely support (Scores 1 and 2): 21 institutions;
- Institutions that do not support (Score 0): 55 institutions.

The objective was to collect the participation data for the institutions according to the four distinct groups, profile them by relying on four university ranking sources—chosen for their prominences, diverse methodologies, and transparent rankings—and establish the averages in each ranking category. Table A2 lists the 100 institutions by country.

2.2. University Ranking Data and Measurements

The four ranking sources used in the study differ in how they calculate various indicators and are broken down as follows:

THE indicators for the year 2022:

- World ranking (combining the scores for teaching (30%); research (30%); citations (30%); international outlook (7.5%); industry income (2.5%));
- Citation impact (the average number of times a university's published work is cited by scholars in the literature globally);
- Research impact (including three indicators: a university's reputation for research excellence based on the institutions' responses to the THE's reputation survey (18%), research volume (6%), and research income (6%));
- International outlook (including three indicators: the proportion of international students (2.5%), proportion of international staff (2.5%), and proportion of a university's total relevant publications that have at least one international coauthor (2.5%)).

ARWU indicators for the year 2022:

- *World ranking* (combining the scores for award-winning alumni (10%); award-winning staff (10%); highly cited researchers (20%); papers published in *Nature* and *Science* (20%); papers indexed in the Science Citations Index and Social Science Citation Index (20%); per capita academic performance (10%));
- Highly cited researchers (Clarivate Analytics' list issued in November 2021 was used to calculate the "Hi-Ci" indicator for 2022. Only the primary affiliations of highly cited researchers are considered);
- Research output (the number of papers indexed in the Science Citation Index—Expanded and Social Science Citation Index).

QS indicators for the year 2023 (which were published in 2022 and are therefore comparable to the THE, ARWU, and Leiden rankings):

- World ranking (combining the scores for academic reputation (40%); employer reputation (10%); the faculty/student ratio (20%); citations per faculty (20%); the international faculty ratio (10%); the international student ratio (10%));
- Citations per faculty (the university's research quality is measured with a citation-per-faculty metric, which takes the total number of academic citations in papers produced by an institution in five years);
- International faculty ratio (the ratio of international faculty staff to overall staff);

The Leiden indicator for the year 2022 (published in 2022):

- The proportion of articles published open access in all disciplines (in the period 2017–2020).

Although some information provided by the four university ranking sources used in this research—THE (the data were collected from the following website in the summer of 2022 and leading up to 1 September 2022: https://www.timeshighereducation.com/world-university-r%C3%A0nkings/2022); ARWU (the data were collected from the following website in the summer of 2022 and leading up to 1 September 2022: https://www.shanghairanking.com/rankings/arwu/2022); QS (the data were collected from the following website in the summer of 2022 and leading up to 1 September 2022:

https://www.topuniversities.com/university-rankings/world-university-rankings/2023); Leiden (the data were collected from the following website in the summer of 2022 and leading up to 1 September 2022: https://www.leidenranking.com/ranking/2022/list)—is similar and may overlap, each of these sources offers insight into at least one unique aspect that the others do not. To provide the most accurate data that help to "profile" institutions, only the institutions ranked by all four ranking sources for at least one of the five chosen indicators were included in the analysis. Below is the breakdown of the examined indicators in the order in which they are presented in the Results section of this paper:

- World ranking—from three sources: THE, ARWU, and QS;
- Citation impact—from three sources: THE (average citations per publication), ARWU (highly cited researchers), and QS (citations per faculty);
- Research impact—from two sources: THE (research volume, reputation, and income) and ARWU (volume of papers indexed);
- Research published open access—from one source: Leiden;
- Internationality—from two sources: THE (international outlook) and QS (international faculty ratio).

3. Results

The tables in this section show how the 100 institutions rank in general in each category (i.e., indicator) and when divided into 4 distinct groups (do not support, support rarely, support often, and support the most). The tables break down the numbers and averages per group for consistency and clarity, always stating the overall average in the first row. In all cases, the groups are presented in the following order: all institutions; institutions that support the most; institutions that support often; institutions that support rarely; institutions that do not support.

3.1. World Ranking

The first factor considered is the world university rankings according to three sources: THE, ARWU, and QS.

The THE world ranking is made up of scores for teaching (30%), research (30%), citations (30%) (as indexed in Scopus), international outlook (7.5%) (including the proportion of international students and staff, as well as the institution's international collaboration), and industry income (2.5%) (how much research income an institution earns from the industry).

Table 1 shows the THE average world rankings for all institutions combined and for each group. The average THE ranking for all 100 institutions is 277.6. When we calculate the average ranking within each group, the institutions that support the most (5 or 6 times out of six) receive the highest ranking (i.e., the lowest number): 148.1. The institutions that did not support KU crowdfunding over the past six years receive the lowest ranking (i.e., the highest number): 370.2. In other words, while the THE ranking of the institutions that participate in some capacity (either the most, often, or rarely) is well above the overall average, the average ranking of the institutions that do not support is significantly below the overall average.

Table 1. THE average rankings of institutions.

Institutions	THE Avg. Ranking
All institutions (100)	277.6
Support the most (9)	148.1
Support often (15)	162.1
Support rarely (21)	173.1
Do not support (55)	370.2

Unlike the THE's world ranking approach, the ARWU places the most emphasis on faculty achievements. Award-winning alumni, award-winning staff, and highly cited researchers make up 50 percent of the overall score. Table 2 shows the ARWU average world rankings for all institutions combined and for each group. The average ARWU ranking for all 100 institutions is 257.5. When we examine the average ranking within each group, we see that the highest ranking (i.e., the lowest number) is given to those institutions that support the most: 188.1. The lowest ranking is given to the institutions that do not support KU's library crowdfunding initiative: 297.9. The average ARWU ranking of the institutions that participate in some capacity (the most, often, or rarely) is above the overall average, while the average ranking of the institutions that do not support is below the overall average.

Table 2. ARWU average rankings of institutions.

Institutions	ARWU Avg. Ranking
All institutions (100)	257.5
Support the most (9)	188.1
Support often (15)	205.0
Support rarely (21)	218.9
Do not support (55)	297.9

Like THE, QS relies on survey data to determine each institution's reputation among academics and employers. Half of its overall ranking score is based on opinions and not on calculable data. The other major indicator for QS is the faculty–student ratio, which points to the quality of the teaching and learning environment and makes up 20% of the overall score (compared with THE, for which the faculty–student ratio makes up only 4.5 percent of the overall score).

Table 3 shows the QS average world rankings for all institutions combined and for each group. The average overall QS ranking for all institutions is 284.2. When we examine the average ranking of each group, we see that this time the highest ranking is not given to those that support the most but to those that rarely support (190.2), while the lowest ranking is given to the institutions that do not support KU crowdfunding (351.1). While all the institutions that participate in some capacity rank higher than the overall average, those that rank the highest this time are those that rarely support.

Table 3. QS average rankings of institutions.

Institutions	QS Avg. Ranking
All institutions (100)	284.2
Support the most (9)	197.0
Support often (15)	222.7
Support rarely (21)	190.2
Do not support (55)	351.1

The more institutions that support the KU crowdfunding initiative for OA monographs, the higher their world rankings. The institutions that support the most (five or six times in six years) on average rank higher than the institutions that support often (three or four times in six years), rarely (one or two times in five years), or never (no participation in six years). However, as the QS ranking shows, the most supportive institutions do not consistently rank higher than those that rarely support (three or four times in six years). What is evident is that the institutions that support in some capacity (always, sometimes, or rarely) rank higher, while the institutions that do not support at all rank the lowest, and lower than the overall average of all institutions.

One way to explain the discrepancy in QS's ranking is by comparing the sources' methodologies. Of the three sources, QS is the most dependent on survey results. Half of its overall score rests on academic and employer reputation survey results. In comparison, the ARWU develops its scores by relying solely on quantifiable data, with great emphasis placed on the academic achievements of faculty. This may also explain why its average score for all institutions is the lowest of the three sources. Lastly, the THE's score combines reputation survey results (33%) and other quantifiable parameters. In other words, the QS scores may deviate from the pattern because the QS methodology relies on survey data, which may not always reflect accurate and reliable answers and opinions, and may even reflect subjective thoughts and unmotivated participants.

What is also noticeable when comparing Tables 1–3 is that the three groups that support in some capacity are much closer in score than the overall average ranking or the group that does not support. We can also see that the institutions that support rarely have high average world rankings. Consequently, while we may conclude that institutions that support KU crowdfunding are ranked higher than average, it is also accurate to conclude that institutions that support rarely rank high.

3.2. Citation Impact

The citation impact analysis led to similar conclusions to those of the analysis of the world rankings. This category assesses the quality of the faculty, how much their research is shared, and to what extent it influences the academic community. THE examines this influence by capturing the average number of times that a university's published work is cited by scholars globally. Its bibliometric data supplier, Elsevier, examined over 108 million citations to 14.4 million journal articles, article reviews, conference proceedings, books, and book chapters published over five years. The data include 24,600-plus academic journals indexed by Elsevier's Scopus, and all indexed publications between 2015 and 2019 [46].

Table 4 shows that the average number of citations per work for the most supportive group is the highest, 86.2, while it is the lowest for the group that does not support, 68.9. Upon closer examination, it becomes apparent how close the numbers are for the three groups that support crowdfunding in some capacity—the most, often, or rarely—leading to the conclusion that the institutions that support crowdfunding to some degree employ researchers whose works are cited significantly more than those of the institutions that do not participate in this type of library crowdfunding.

Table 4. Average citations per publication: THE.

Institutions	THE Avg. Citations
All institutions (100)	76.0
Support the most (9)	86.2
Support often (15)	83.9
Support rarely (21)	84.7
Do not support (55)	68.9

The ARWU focuses on the number of "highly cited" researchers of an institution selected by Clarivate Analytics, considering only the primary affiliations of highly cited researchers. Table 5 shows that the highest number of highly cited researchers belongs to the institutions that support the most (19.7), while the lowest belongs to the institutions that do not support (12.8). However, the institutions that support rarely do not trail far behind the institutions that support the most, and they score higher (19) than the institutions that support often (17). The only group with a significantly low score in this category is the group of institutions that, to date, have not supported crowdfunding (12.8). The results in Table 5 point to the closeness in the scores between the "Support the most" and "Support rarely" groups compared with the others. Again, the data reveal that the

institutions that do not support KU crowdfunding score low in the number of highly cited researchers—lower than the overall average for all institutions. However, the "Support rarely" group ranks higher than the "Support often" group.

Table 5. Average number of highly cited researchers: ARWU.

Institutions	ARWU Avg. Score for Highly Cited Researchers
All institutions (100)	15.3
Support the most (9)	19.7
Support often (15)	17.0
Support rarely (21)	19.0
Do not support (55)	12.8

While the THE citation score captures the average number of times that a university's published work is cited by scholars globally and the ARWU captures the number of highly cited researchers at an institution, the QS measures the research quality by using the citation-per-faculty metric, taking the number of citations in papers produced by a university in a five-year period. Table 6 shows that the highest number of citations per faculty belongs to the "Support often" group (55.2), compared with the "Do not support" group (33.5). Table 6 reveals that the highest scores for the number of citations per faculty belong to the three groups that support in some capacity (the most, often, or rarely). The numbers for these three groups are not far apart, whereas the difference between the institutions that support in some capacity vs. those that do not support at all is notably greater (33.5 vs. 51.2–55.2).

Table 6. Citations per faculty: QS.

Institutions	QS Average Citations per Faculty
All institutions (100)	42.2
Support the most (9)	53.2
Support often (15)	55.2
Support rarely (21)	51.2
Do not support (55)	33.5

Although the way that the citation impact is measured differs from source to source—with THE focusing on the average citations per published work, the ARWU focusing on the number of highly cited researchers, and QS focusing on the number of citations per faculty—all three sources give insight into the influence of the institution's produced research and researchers. It can be concluded that the institutions that support KU crowdfunding the most have the greatest citation impact overall, while the institutions that support often and rarely have above-average citation impacts when compared with the average for all institutions. This again points to the quality of the institutions that have not yet fully embraced the crowdfunding model for OA monographs, but that have not entirely ignored it either.

3.3. Research Impact

The next examined indicator is the research output and reputation, as assessed by two sources: THE and the ARWU. Because the two organizations do not apply the same criteria for evaluating this indicator, their numbers do not reflect the same metric, but when taken together, they give insight into each institution's research output and the perception of that output in the scholarly community.

According to the THE website, the most prominent indicator in this category looks at the university's reputation for research excellence among its peers, based on the responses to the THE's annual Academic Reputation Survey (18%); however, the category

also takes into account the number of journal publications indexed by Elsevier's Scopus database per scholar, scaled for institutional size (6%) and research income (6%). Table 7 shows that the average THE research score of all institutions is 40.5. The average research score for the "Support the most" group is 47, while the average score for the "Do not support" group is below the overall average (35.7), which is consistent with previous findings. However, the "Support rarely" group scores higher in this category (48.2) than the "Support the most" group (47). This finding again points to the high performance of the "Support rarely" group—higher than the other two groups that support the KU initiative the most—while the overall average for the "Do not support" group (grey) is lower than the overall average for all institutions.

Table 7. Average scores for research volume, income, and reputation combined: THE.

Institutions	THE Avg. Research
All institutions (100)	40.5
Support the most (9)	47.0
Support often (15)	43.3
Support rarely (21)	48.2
Do not support (55)	35.7

The ARWU examined the number of papers indexed in Clarivate's Science Citation Index—Expanded and Social Science Citation Index in 2021 (identified on the ARWU website as the PUB indicator). As explained, "to distinguish the order of author affiliation, a weight of 100 percent is assigned for corresponding author affiliation, 50 percent for first author affiliation (second author affiliation if the first author affiliation is the same as corresponding author affiliation), 25 percent for the next author affiliation, and 10 percent for other author affiliations" (ARWU Methodology, 2022). Table 8 shows that the average score for all institutions for the PUB indicator (i.e., the number-of-papers index in 2021) is 43, while the average PUB score for the institutions that do not participate in crowdfunding is below average: 42.4. The scores for the "Support rarely" and "Support the most" groups are similar, with a slightly higher score for the "Support rarely" group (44.5 vs. 44.4). What is surprising here is that the score for the "Support often" group is lower than the overall average (42.2 vs. 43), as well as the average of the "Do not support" group (42.2 vs. 42.4). In other words, the institutions that support rarely have the highest number of papers indexed in the two citations indexes, which again points to the productivity of the research of these institutions.

Table 8. ARWU papers indexed in Science Index and Social Science Index.

Institutions	ARWU Avg. PUB Score
All institutions (100)	43.0
Support the most (9)	44.4
Support often (15)	42.2
Support rarely (21)	44.5
Do not support (55)	42.4

In summary, the THE and ARWU indicators that are focused on some aspect of research productivity—including the volume of published articles, volume of indexed articles, income, and reputation—show that the institutions that support KU crowdfunding rarely have the highest performances in terms of their overall research output and impacts, which are lower in the other groups. When we combine this finding with the findings on the citation impact, we conclude that the institutions that do not support KU crowdfunding have the lowest scores in all aspects of the citation and research impact. In contrast, the institutions that support KU in some capacity always perform

higher than those that do not in terms of the research volume, research excellence, and research influence. Further, while the institutions that support KU crowdfunding the most may be defined as producing the highest number of the most influential ("highly-cited") researchers, the institutions that rarely support stand out for their research volume and the perception of their research in the scholarly community.

3.4. Research Published Open Access

If we next consider the extent to which these same institutions produce their research OA—including gold, hybrid, green, or bronze OA journals (the focus of the Leiden ranking)—then we obtain a better understanding of these institutions' current commitment to OA (even if it is not specific to monographs).

Table 9 shows the percentages of OA journal publications at the 100 institutions, with the overall average for all institutions at 71%. This means that, on average, 71% of the publications that these institutions produce are published OA. For the institutions that support the most, the number goes up to 80.6%, while for those that do not support, the number goes down to 65.5%. What the data in Table 9 reveal is that the institutions that support the most and the institutions that support often publish over 80 percent of their research (in journal format) OA, which is significantly higher than the OA output of the institutions that do not support it.

Table 9. Proportion of OA publications: Leiden.

Institutions	P.P. (OA)
All institutions (100)	71.0%
Support the most (9)	80.6%
Support often (15)	80.4%
Support rarely (21)	74.5%
Do not support (55)	65.5%

When we combine the results of the Leiden ranking for OA with the results focused on the research impact, we conclude that those institutions that do not support KU crowdfunding rank below the overall average regarding their overall research output and the percentage of their research published OA. In addition, the more institutions that participate in crowdfunding initiatives for OA monographs, the greater the percentages of their current research that is published OA in journals.

3.5. Internationality

The last indicator considered is not related to an institution's rank or reputation, or to the volume or quality of its research output. Instead, it looks at the "internationality" of each institution (i.e., the extent to which each institution is international in its structure and approach to building diverse cultures and encouraging cross-cultural and cross-university collaborations—one of the pillars of the OA movement).

The THE's international outlook score (which makes up 7.5 percent of the overall ranking score given to an institution) comprises three indicators: the proportion of international students, proportion of international staff, and international collaboration. The third indicator is especially relevant because it shows how much an institution collaborates with other institutions and promotes various "collaborative" endeavors. Here, THE calculates the proportion of a university's publications with at least one international coauthor in five years [46]. The three indicators give each institution a score that determines its "international outlook".

Table 10 breaks down the scores per group, showing that the institutions that do not support KU crowdfunding scored 63, which is below the average for all institutions (72.2). The institutions that support the most and those that support rarely received the same

score: 81.8, while the institutions that support often (but not the most) received the highest score: 86.8.

Table 10. International outlook scores: THE.

Institutions	THE Average International Outlook
All institutions (100)	72.2
Support the most (9)	81.8
Support often (15)	86.8
Support rarely (21)	81.8
Do not support (55)	63.0

QS's international faculty ratio indicator compares the international staff ratio to the university's overall staff. The term "international" is determined by the faculty's citizenship, and in the case of dual citizenship, the deciding criteria are the citizenship obtained through birth or the first passport in possession. This QS indicator may complement the THE's international outlook indicator, which seeks to determine an institution's internationality by looking at the proportion of international students and staff and the "international collaboration". The QS's international faculty ratio zooms in only on the staff that have contributed to academic research or teaching for at least three months.

Table 11 shows the international faculty ratio results, which are similar to the "international outlook" results. The lowest international faculty ratio is assigned to the "Do not support" group (40.3%), while the highest ratio is assigned to the "Support often" group (88.9%).

Table 11. International faculty ratios: QS.

Institutions	Average International Faculty Ratio
All institutions (100)	59.3
Support the most (9)	80.8
Support often (15)	88.9
Support rarely (21)	78.6
Do not support (55)	40.3

The analysis of the universities' "internationality" shows that the most "international" of all the universities are not those that support the most but those that support often, and that although the institutions that support rarely show strong rankings in the categories of research output in general, they appear not to be as "international" as the universities that support KU crowdfunding often or the most. However, they are still well above the overall average even in this category, and they are above the average when compared with the "Do not support" group.

4. Discussion

By taking a closer look at several university ranking indicators given by four ranking sources—THE, ARWU, QS, and Leiden—we arrive at some observations about the types of institutions that are presently most inclined to support KU's crowdfunding initiative for OA monographs (and thus possibly also the library crowdfunding approach in general). We also arrive at some observations about the types of institutions that are currently not considered to be drivers of the success of KU's library crowdfunding model because they do not support it consistently, but do support it, which may result in stronger future support by these institutions and thus contribute to the sustainability of the model. Lastly, the results reveal the institutions that have remained uninterested in this type of "international" library crowdfunding.

4.1. Key Findings

The following are the study's key findings:

- Institutions that financially support OA monographs through crowdfunding in some capacity (rarely, often, and the most vs. never) have higher overall world rankings than those that do not financially support. On average, the institutions that support crowdfunding the most (i.e., that supported five or six times in the past six years) obtained the highest overall world ranking scores compared with other institutions;
- Institutions that have not yet participated in KU's crowdfunding initiative consistently rank below average in every category examined. This is particularly noticeable when comparing their "internationality" to that of all the other institutions;
- Institutions that support crowdfunding in some capacity (rarely, often, and the most) perform higher than those that do not in terms of research volume, research excellence, and citation influence;
- Institutions that support crowdfunding the most may be defined as producing the highest number of the most influential researchers;
- Institutions that support KU crowdfunding the most also have the greatest citation impacts, while those that support often and rarely have above-average citation impacts;
- Institutions that support rarely rank higher than institutions that support often in terms of their citation impacts;
- Institutions that support rarely stand out for their research output and the overall perception of their research in the scholarly community, pointing to their overall research productivity;
- Institutions that do not support KU crowdfunding rank below the overall average when it comes to their overall research output, as well the percentage of their research published OA, while the institutions that support crowdfunding the most produce the most significant (i.e., the highest) proportion of research OA;
- The most "international" of all institutions are not those that support the most but those that support often.

In conclusion, the institutions that are most likely to participate in library crowdfunding initiatives for OA monographs, such as the KU initiative, may be defined as highly ranked overall and productive of relevant and timely research in quantity, quantity, relevance, and timeliness. They already publish a significant proportion of their research OA in article/journal format, and they are highly invested in advancing HSS scholarship and maintaining their international outlooks.

The study confirmed the hypothesis that research-intensive universities that are ranked highly tend to be the most inclined to support library crowdfunding initiatives. The study also revealed that institutions that support rarely rank significantly higher than those that do not support at all in terms of their research output and influence. Therefore, the most significant revelation of this study is the high academic standing of the institutions that support rarely (i.e., the institutions that have participated in KU crowdfunding but have not shown consistent commitment). These institutions may not be as "international" in their outlooks, and they may not be as productive on the OA front as the institutions that support the most, but they stand out for high-quality and significant research output, and particularly when compared with the institutions that do not participate. This finding points to the fact that the library crowdfunding business model for OA monographs is still maturing, as many high-quality institutions worldwide have not embraced it; at best, they have tested it or encountered it in some small capacity over the past few years.

Further, given their high academic standing, the "Support rarely" institutions may be recognized as the type of institutions that could significantly contribute to the sustainability of the KU crowdfunding initiative (and thus library crowdfunding for OA

monographs), as their future participation is needed to ensure the success of international library crowdfunding campaigns, such as KU. It may be argued that if these institutions participate in more significant numbers, then the KU crowdfunding model for OA monographs would become more widely accepted and eventually lead to more acceptance among the institutions that have not yet embraced it. It may also be argued that the consistent participation of some institutions may have led to the proliferation of other types of library crowdfunding campaigns for monographs in recent years—not only by KU, but also by various other entities and publishers that now embrace the model (which are not covered in this study).

4.2. Limitations of the Study

This study was guided by the assumption that the institutions ranked by all four sources put significant effort into cooperating with the ranking organizations to ensure that they appear on various ranking lists. However, this does not imply that the institutions not ranked by all four sources (and not included in this study) do not warrant a closer analysis in the context of their support for OA monographs and the library crowdfunding model (through KU or otherwise). There could be a number of reasons why an institution is not ranked by one or all four sources. While the study aimed to diversify the sample as much as possible by including institutions that represent a wide range of European countries, only those institutions ranked by all four sources were examined. Likewise, other ranking sources that were not the subject of this study may yield different results.

The study relied on the data of only one of several existing library crowdfunding initiatives for OA monographs. It is possible and to be expected that the institutions that do not participate in KU's crowdfunding initiative support other initiatives (including but not limited to crowdfunding) for OA monographs, and that the results of this study may not give a complete picture of their interest in library crowdfunding for OA monographs. Given the controversies surrounding KU's for-profit status, it is also to be expected that some institutions may not support KU not because they do not support the idea of library crowdfunding through such a scheme, but because they do not wish to support the model if it is not rooted in nonprofit ideals.

The study also did not focus on the amount of funding set aside by each institution for each year that it participated; the focus was on the institutions' ongoing commitment or lack thereof. Library budgets are important in determining an institution's ability to support OA publishing. If library budgets are limited, and particularly those that may be allocated for OA monographs—as often may be the case in the institutions that receive lower ranking scores overall—then they may be the main reason that these institutions do not participate.

Further, the study attempted to build on the existing knowledge of the possible indicators that point to the sustainability of an innovative business model for OA monographs. While the findings indicate some of the characteristics of the institutions most likely to participate in global library crowdfunding, they do not give a complete picture of the likelihood of support in the future. They may, however, point us in the right direction.

Lastly, the study did not consider the academic focuses of the 100 institutions. While many institutions comprise a range of HSS and STEM programs, some may have a more pronounced focus on and investment in STEM programs. Given that monographs are closely tied to HSS disciplines, they are expected to be most supported by the institutions that are most heavily invested in the humanities and social sciences.

4.3. Recommendations for Further Research

When examining the traits of institutions that embrace the global library crowdfunding model for OA monographs, future studies should go beyond KU Select HSS Books (one of several initiatives run by KU), consider other library crowdfunding

initiatives by other players in the OA ecosystem, and compare their findings with this study. Future studies should also evaluate additional indicators that help identify the institutions most likely to keep the library crowdfunding model going, including, for example, their OA budgets. It is common knowledge that libraries worldwide are under pressure to keep investing in OA on tight budgets. The questions that naturally arise from this study are whether the institutions that support the most also have the most OA monographs, and what proportions of their budgets are allocated to OA monographs, compared with those that support rarely or never.

Future studies should also examine the relationship between the ranking of an institution in a specific academic discipline (rather than the overall ranking) and its participation in crowdfunding initiatives that aim to publish OA monographs in that same discipline to determine the likelihood of an institution supporting the fields most relevant for its community.

A future survey with librarians that explores the reasons for their institutions' support of OA monographs—and particularly on the types of crowdfunding models supported and their positions on supporting for-profit vs. nonprofit initiatives—would complement this study. Lastly, an assessment of the kinds of library crowdfunding initiatives currently supported by the institutions would provide further insight into the current prevalence of the KU Select HSS Books initiative compared with other library crowdfunding initiatives for OA monographs.

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Appendix A

Table A1. Breakdown of institutions and their scores

	Support Score
Total number of institutions examined in the study: 100	–
Institutions that supported the most in the given period (2016–2021): 9/100	Score 5 (supported 5 times in 6 years) Score 6 (supported 6 times in 6 years)
Institutions that supported often in the given period (2016–2021): 15/100	Score 3 (supported 3 times in 6 years) Score 4 (supported 4 times in 6 years)
Institutions that rarely supported in the given period (2016–2021): 21/100	Score 1 (supported 1 time in 6 years) Score 2 (supported 2 times in 6 years)

Institutions that did not support in the given period (2016–2021): 55/100	Score 0 (did not support)

Table A2. Institutions included in the study, by country, including Support Score for each.

Country	Institution	Support Score †
Austria	Johannes Kepler University Linz	0
Austria	University of Innsbruck	0
Austria	University of Vienna	0
Belgium	Ghent University	0
Belgium	Hasselt University	0
Belgium	University of Antwerp	0
Belgium	Vrije Universiteit Brussel	0
Croatia	University of Zagreb	0
Czechia	Charles University, Prague	0
Denmark	Aarhus University	0
Denmark	University of Copenhagen	0
Denmark	University of Southern Denmark	0
Denmark	Aalborg University	1
Estonia	University of Tartu	1
Finland	University of Eastern Finland	0
Finland	University of Helsinki	0
Finland	University of Turku	1
Finland	Tampere University	2
France	Grenoble Alps University	0
France	Paris-Saclay University	0
France	Sorbonne University	0
France	University of Bordeaux	0
France	University of Lorraine	0
France	University of Strasbourg	0
Germany	Goethe University Frankfurt	0
Germany	University of Munich	0
Germany	University of Freiburg	1
Germany	University of Hamburg	1
Germany	University of Bonn	2
Germany	Bielefeld University	4
Germany	University of Cologne	6
Greece	National and Kapodistrian Univ. of Athens	0
Greece	University of Crete	0
Hungary	Eötvös Loránd University	0
Ireland	University College Dublin	0
Ireland	Trinity College Dublin	1
Ireland	University College Cork	2
Ireland	University of Limerick	2
Italy	Sapienza University of Rome	0
Italy	University of Bologna	0
Italy	University of Genoa	0
Italy	University of Milan	0
Italy	University of Padua	0

Italy	University of Siena	0
Lithuania	Vilnius University	0
Netherlands	Maastricht University	0
Netherlands	Utrecht University	0
Netherlands	Erasmus University Rotterdam	2
Netherlands	University of Amsterdam	2
Netherlands	University of Groningen	3
Netherlands	Vrije Universiteit Amsterdam	5
Netherlands	Leiden University	6
Norway	University of Bergen	0
Norway	Norwegian Univ. of Science and Technology	3
Norway	University of Oslo	4
Norway	UiT The Arctic University of Norway, Tromsø	6
Poland	Adam Mickiewicz University, Poznań	0
Poland	Jagiellonian University	0
Poland	University of Warsaw	0
Portugal	NOVA University of Lisbon	0
Portugal	University of Lisbon	0
Portugal	University of Porto	0
Romania	Babeș-Bolyai University	0
Serbia	University of Belgrade	0
Slovakia	Comenius University, Bratislava	0
Slovenia	University of Ljubljana	0
Spain	Autonomous University of Barcelona	0
Spain	Autonomous University of Madrid	0
Spain	Complutense University of Madrid	0
Spain	University of Barcelona	0
Spain	University of Navarra	0
Sweden	Lund University	0
Sweden	University of Gothenburg	0
Sweden	Uppsala University	0
Sweden	Stockholm University	5
Switzerland	University of Geneva	2
Switzerland	University of Basel	4
Switzerland	University of Bern	4
Switzerland	University of Zurich	6
United Kingdom	University of Oxford	0
United Kingdom	University of Birmingham	1
United Kingdom	University of Cambridge	1
United Kingdom	University of Glasgow	1
United Kingdom	Loughborough University	2
United Kingdom	UCL, University of London	2
United Kingdom	University of Edinburgh	2
United Kingdom	University of Liverpool	2
United Kingdom	University of Southampton	2
United Kingdom	Durham University	3
United Kingdom	Queen Mary University of London	3
United Kingdom	University of Bath	3
United Kingdom	University of Exeter	3

United Kingdom	University of Kent	3
United Kingdom	University of Sheffield	3
United Kingdom	King's College London	4
United Kingdom	University of Nottingham	4
United Kingdom	University of Surrey	4
United Kingdom	University of Reading	5
United Kingdom	Lancaster University	6
United Kingdom	University of Manchester	6

[†] Notes: For each year that an institution participated, the institution received 1 point, totaling 6 points for the institutions that participated every year between 2016 and 2021. If an institution received a 0, then it did not participate in KU crowdfunding in the period between 2016 and 2021.

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