PERFORMANCE REPORT FOR REGION

January 2022

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Executive Summary

REGION is the journal of the European Regional Science Foundation (ERSA), founded in 2014 as a cooperation of ERSA and the Vienna University of Economics and Business (WU) and with seed funding from the Austrian Science Foundation (FWF). REGION's overarching aim is "*to support the exchange of ideas among regional scientists worldwide*". Therefore, REGION publishes electronically, provides open access, and does not charge authors any article processing charges. REGION strictly applies double blind peer-review in order to meet the highest scientific standards.

This report reviews the first years of REGION from its founding in 2014 until December 31st, 2021, the date of data extraction. The main results of the review are the following:

- REGION receives a sufficient – and increasing – number of submissions with authors from a wide range of countries.
- The largest share of authors of submissions and – even more so – of published papers come from developed countries. In recent years, the share of less developed countries increased slightly.
- The review and publishing process is efficient. Over half of the papers published in REGION made it through this process in less than 34 weeks.
- The numbers of citations are high by now and increased strongly over the years. This applies to all available sources. REGION climbed steadily in the Scopus ranking and the pseudo impact factor for the last two years is 4.28 and growing.
- Articles published in REGION were downloaded from the homepage 125,957 times (65,509 of those in 2021). More recently published articles are viewed more often than those published earlier, demonstrating the growing relevance of REGION as an international regional science journal.
- Traffic on the REGION homepage grew continuously over the years; since 2019 by more than 50% annually. Strong demand originates from USA, China, Germany, and the UK. Less developed countries like India, Indonesia, and Brazil are among the top ten as well.

REGION has achieved these results with very low financial input due to the support from ERSA and WU, the seed funding from FWF, an efficient organization, and the voluntary input of the editorial team.

1. Introduction – the founding of REGION

REGION published its first paper, an editorial by the journal's editors, on May 8th, 2014. After seven years, it is time to look back and evaluate the development and performance of the journal.

REGION originated from a cooperation between the European Regional Science Association (ERSA) and the Vienna University of Economics and Business (WU) in the context of an application to the Austrian Science Foundation FWF for seed funding. This seed funding was only available for newly founded open access journals, or established journals to switch to open access. The motivation for the founding of REGION was threefold:

1. ERSA as the largest supranational part of the Regional Science Association International (RSAI) had a strong interest in having its own journal. The "necessity" of the organization to have its own journal was under discussion in ERSA's European Organizing Committee (EOC) for many years.
2. The technological developments in academic publishing offered the opportunity to generate a journal with an innovative format (online only, full open access) that differed from all existing journals in the field.
3. The opportunity to get the difficult start-up phase financed by FWF.

In an initiative led by Gunther Maier, ERSA and WU agreed to start the online open access journal REGION and to manage it jointly for a funding period of three years plus a follow-up period of six years. The funding period ended in May 2017. The total period will end in May 2023. The application to FWF for REGION was successful and the project received a budget of € 50,000. Close to € 30,000 of that budget was spent on REGION in the first three years. The rest of the budget was returned to FWF in 2017.

Parameters for REGION

The application to FWF defined the parameters under which REGION operates. These parameters were communicated to the bodies of ERSA, accepted by ERSAC decisions, and confirmed in a "Financial Commitment of Sponsoring Institution(s)" which is part of the application to FWF. This financial commitment states that ERSA will support REGION with € 36,000 in the initial three-year period and with additional € 90,000 in the six years following the initial funding period. A major part (€ 42,000) of these contributions are in-kind contributions by the editorial team.

The overarching aim of REGION is:

"To support the exchange of ideas among regional science researchers worldwide"

The key instruments for implementing this goal, also specified in the FWF application, are the following:

- Double blind peer review
- Online publishing
- Continuous publishing
- Open Access – free for readers and free for authors
- Use of a Creative Commons license

- Scientific standards (as expressed in the Code of Conduct of COPE)
- Attractive for researchers in less developed and developing countries
- International visibility

In its call for proposals, FWF specified additional requirements like “getting an ISSN”, “registration in the directory of open access journals (DOAJ)”, and “an internationally respected editorial board”, etc. REGION fulfilled all these requirements either in the application to FWF or in the start-up period.

The implementation by REGION

Based on “Open Journals System” (OJS), a well-established open source suite of programs for journal publishing, the editorial team of REGION implemented the above-mentioned parameters.

Double blind peer review

From its very beginning, REGION applied a strict double blind peer review policy. This policy is stated clearly on the journal’s home page (https://openjournals.wu.ac.at/ojs/index.php/region/about) and strictly implemented by the team of editors.

Online publishing

Following a mega-trend in academic publishing, REGION is available only online in electronic form. All papers are available as PDF-files, many also in HTML-formal. Since 2019, REGION publishes suitable articles as dynamic documents in RMD or IPYNB format. These formats demonstrate the advantages of online over paper based publishing.

Continuous publishing

In order to make successfully reviewed articles available to readers as quickly as possible, REGION follows a policy of continuous publishing. REGION always has a “current issue” open and adds articles that have passed the peer review and were turned into publishable form by copyediting and layout editing to that issue. Contrary to “online first” publishing used by many journals, these articles immediately have all the necessary bibliographic characteristics like volume, issue, pages, and DOI-number. Twice a year, on January 1st and on July 1st, the current issue is closed, archived, and a new current issue started.

REGION applies “continuous publishing” also to articles for special issues. Such articles undergo the same strict peer review as all other articles. When they are ready for publication, they are added to the current issue of REGION. This guarantees (1) that the material is available for the scientific community as quickly as possible, and (2) that no publishable articles can get stranded because other articles do not pass the peer review filter. When all publishable articles of the special issue have been published in this form, REGION collects them into one PDF-document and publishes this document (plus an editorial by the respective special issue editors) as a special issue.

Open access

Open access is the key tool to achieve the above-mentioned aim of REGION. The application to FWF stated that REGION would neither charge readers for access to the journal, nor authors for publishing in the journal. This was not only an innovative form of publishing in regional science when REGION was

founded. It also allows regional scientists from developing and less-developed countries to access the material and to publish their work without financial barriers.

Creative Commons license

Since it is the aim of REGION to distribute regional science knowledge widely, the journal applies a Creative Commons license (https://creativecommons.org/licenses/by-nc/4.0/), which – with proper attribution – allows everybody to share and adapt the material published in REGION for non-commercial purposes. The copyright remains with the author(s) of the article.

Scientific Standards

REGION developed standards for publishing following the guidelines of the Committee on Publication Ethics (COPE). The journal published these standards on its homepage and specified responsibilities of editors, reviewers, and authors (https://openjournals.wu.ac.at/ojs/index.php/region/about).

International visibility

REGION aims for international visibility. This is supported by the involvement of ERSA. In the longer run, however, international visibility can only be developed via reputation. It requires:

- Publishing high quality articles by highly respected authors,
- A growing readership,
- A growing number of citations in established journals.

This reputation building takes time. As the evaluation below will show, REGION is on a good track in this respect. For regional scientists in developed countries, open access (lack of paywalls) may not be the decisive factor why they use REGION. Many of them, however, sympathise with open access and see this as the future mode of scientific publishing.

Attractiveness for researchers in less developed and developing countries

The above-mentioned aim of REGION addresses “regional science researchers worldwide”. For researchers in less developed and developing countries, REGION’s full open access policy should be highly attractive. Provided Internet access, even researchers in the poorest countries of the world can afford to read articles published in REGION. Since there is no financial obligation, REGION should also be an attractive publication outlet for such researchers.

As the evaluation below will show, REGION has a growing number of readers in less developed and developing countries and gets submissions from those countries. Unfortunately, most of those submissions do not pass the peer review so that the respective share in the number of published manuscripts is very low. In order to develop regional science in less developed and developing countries, ERSA and/or RSAI in cooperation with REGION should develop measures that help authors from these countries to improve their papers such that they are publishable in REGION.

2. Evaluation of the current status and development of REGION

This section evaluates the performance of REGION over the full period of its existence. We will analyse the following aspects:

- Submissions to REGION
- The review and editing process of REGION
- Articles and other works published by REGION
- Citations of articles published in REGION
- Views of articles published in REGION
- Access to the REGION homepage
- The financing of REGION

The evaluation is based on data collected by Open Journals System (OJS), the journal management software used by REGION, and on data collected by Google Analytics. All data are as of August 31st, 2021.

2.1 Submissions to REGION

We will first present the total number of submissions and then analyse the origin of the (co-)authors of the submissions.

Number of Submissions

Over the full period, REGION has received 290 submissions. Table 1 shows the breakdown of this number by years. On average, this equates to 36 submissions per year. Figure 1 shows the distribution of submissions for the years 2015-2021.

Year	Number of submissions
2014	36
2015	37
2016	40
2017	34
2018	16
2019	34
2020	51
2021	42
Total	**290**

Table 1: Number of submissions by year

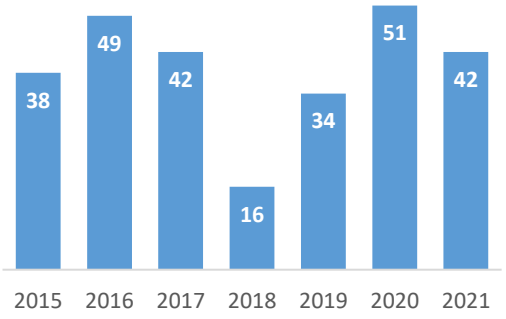


Figure 1: Number of submissions by full year

As of December 31st, 2021, 33 articles are submitted or under review; two in copyediting and one in production, which will be published soon.

The number of submissions to REGION is at the lower end of satisfactory. The breakdown by years shows on the one hand a first peak in 2016, when the journal was new and probably benefitted from a "curiosity" factor. On the other hand, the numbers for the most recent years reflect the increased attempts of the editorial team to attract special issues (the first special issue was published in 2017).

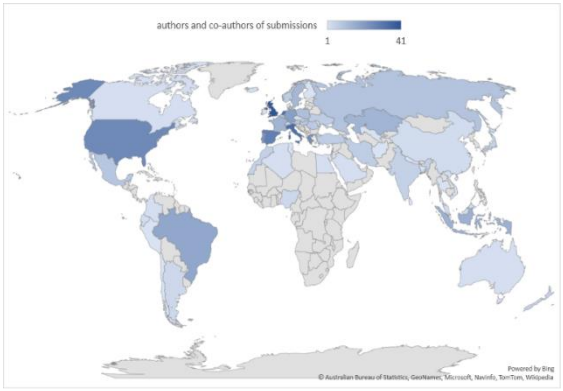
After the decline to 2018, REGION experienced a strong rebound in the number of submissions. Last year (2020) REGION received the largest number of submissions per year.

(Co-)Authors of Submissions

A total number of 550 authors and co-authors were involved in these submissions. Table 2 shows the top 10 countries by number of co-authors. We see a dominance of European countries, but no obvious dominance of any one of them. Note the number of co-authors from the USA and those from Brazil and Indonesia. In total, we see co-authors from 60 different countries.

Country	Number	Percent
United Kingdom	41	7,45%
Italy	40	7,27%
Spain	35	6,36%
Netherlands	34	6,18%
Greece	30	5,45%
United States	26	4,73%
Portugal	23	4,18%
Germany	21	3,82%
Kazakhstan	19	3,45%
Brazil	18	3,27%
Total	**487**	**100,00%**

Table 2: Ten countries with most co-authors of submissions



Map 1: Numbers of authors and co-authors of submissions

Figure 2 shows the breakdown of the co-authors by continent. We see the above-mentioned dominance of Europe.

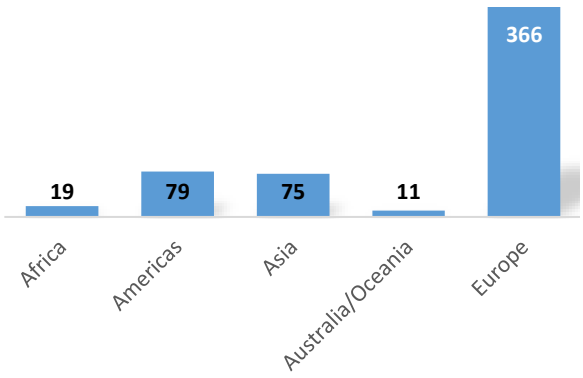


Figure 2: Number of co-authors of submissions by continent

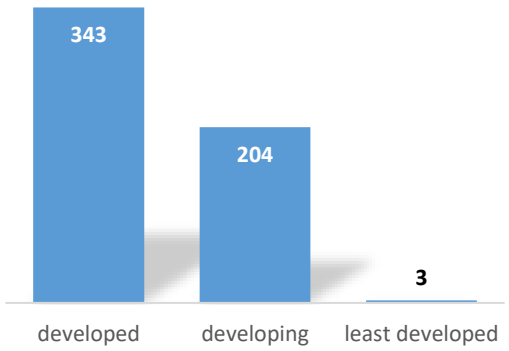


Figure 3: Number of co-authors of submissions by development level of country

Figure 3 shows the number of authors and co-authors by level of development of their home country. We see that REGION mainly receives submissions from authors from developed countries (62.36%). 37.07% of the authors are from developing countries. Less than one percent (0.55%) of co-authors are from the least developed countries – specifically Afghanistan, Bangladesh, and Nepal.

This suggests the journal is doing well against its objective of being attractive to researchers in developing countries with over a third of authors from these countries. In conjunction with data on published articles, more work needs to be done to support researchers in these countries move from submission to publication. Financial cost is one barrier that REGION has removed, but others persist. REGION would seem ideally placed to help address some remaining barriers.

2.2 The review and editing process of REGION

The review and editing process in REGION consists of two steps: (1) peer review, and (2) copy and layout editing. For published items, the first step ended with "acceptance" and started with "submission", the second step runs from "acceptance" to "published". The median number of days and months for each of the two steps and for the whole process are presented in Table 3.

	Days	**Months**
Step 1 (submission to acceptance)	190	6.23
Step 2 (acceptance to publication)	35	1.17
Total (submission to publication)	232	7.73

Table 3: Median duration of review and editing

Figures 4-6 show the corresponding histograms.

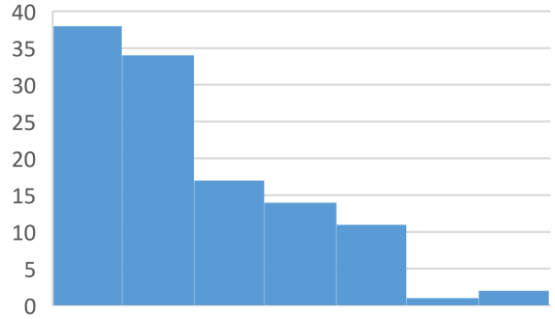


Figure 4: Number of items by days between submission and acceptance

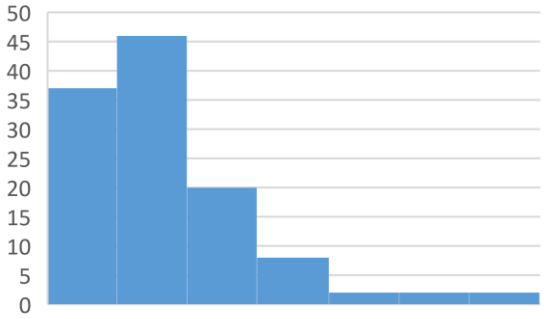


Figure 5: Number of items by days between acceptance and publication

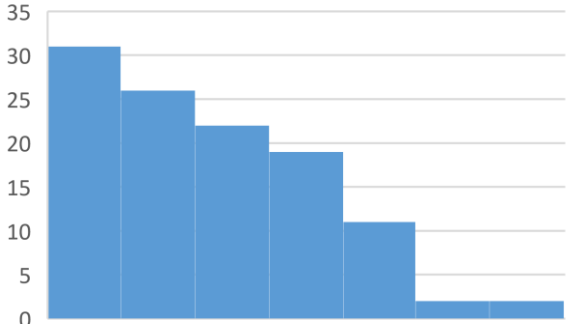


Figure 6: Number of items by days between submission and publication

These numbers are largely in line with those of other journal in regional science, as far as we have evidence. One needs to keep in mind that REGION achieves this with a small team and at very low costs.

2.3 Articles and other works published by REGION

As with submissions, we will first present the total number of published work and then analyse the origin of the (co-)authors of the works.

Number of published works

The 290 submissions to REGION led to 125 published works. As of December 31st, 2021, 33 submissions are under review or awaiting review, three additional articles are close to publication. This implies a rejection rate of 56.9%. Excluding editorials from the calculation increases the rejection rate to 59.6%.

The works fall info five categories: Articles, Editorials, Resources, Letters, and Discussions. The breakdown of the 125 works by category is shown in Figure 7. 71.2% are articles, 14.4% resources, and 10.4% editorials (mainly to special issues).

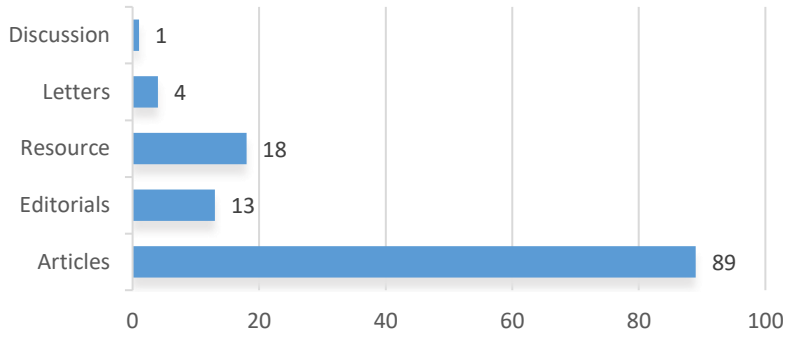


Figure 7: Number of published works by category

Table 4 shows the number of works published every year.

Table 4: works published by year

Year	Number of published works
2014	8
2015	14
2016	16
2017	22
2018	18
2019	14
2020	13
2021	20
Total	**125**

On average, REGION published 15.625 works per year, 16.714 works per full year (excluding 2014).

Figures 8 and 9 show the numbers of works and articles published by year. The dashed lines are the trend lines.

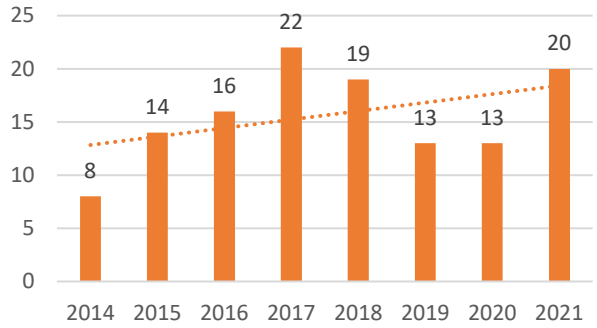


Figure 8: Number of published works by year

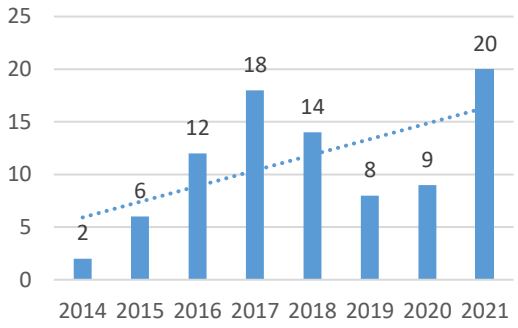


Figure 9: Number of published articles per year

The output is relatively consistent. Despite the decline in submissions during 2018, there has not been a proportionate decrease in publications.

(Co-)Authors of articles and other works published in REGION

A total of 246 authors and co-authors were involved in published works in REGION. They come from 40 different countries. The top ten countries are shown in Table 5 (see also Map 2).

Country	co-authors	percent
United Kingdom	27	10.98%
Netherlands	25	10.16%
Spain	24	9.76%
Italy	18	7.32%
United States	16	6.50%
Germany	14	5.69%
Portugal	12	4.88%
Sweden	11	4.47%
Brazil	10	4.07%
Greece	9	3.66%
Total	**246**	**100.00%**

Table 5: Top ten countries of co-authors of works published in REGION

Map 2: Numbers of authors and co-authors of published papers

We can again break down the authors and co-authors of published works by continent (Figure 10) and by level of development of their country (Figure 11).

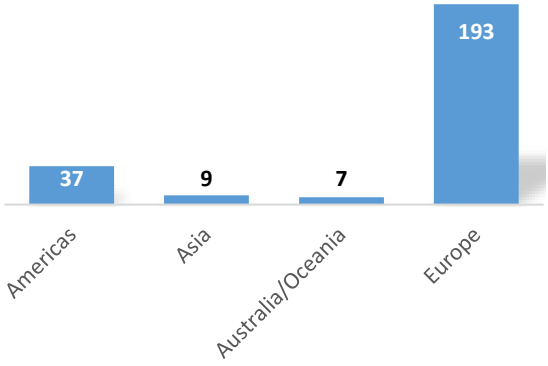


Figure 10: Number of authors and co-authors of published works by continent

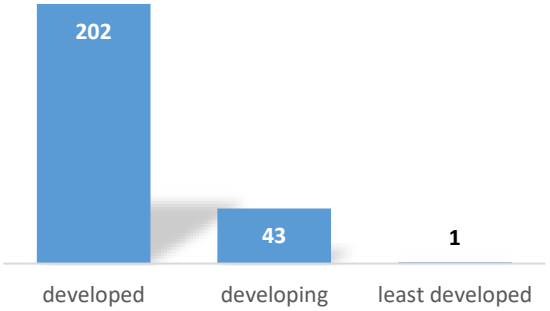


Figure 11: Number of authors and co-authors of published works by development of country

As compared to the respective data about submissions, we see that the review process favours co-authors from developed countries, particularly from Europe and the Americas.

More needs to be done to support researchers in under-represented locations to move from submission to publication. The free submission and publication model is attractive but needs to be supplemented with practical supports like online trainings and coaching.

2.4 Citations of articles published in REGION

Citation numbers to articles published in REGION are available from three different sources: Google Scholar, CrossRef, and Scopus. They use different sources and generate quite different citation results as presented in Table 6.

Table 6: Number of citations by source

Source	Number of Citations
Google Scholar	785
CrossRef	329
Scopus (2017-2020)	115

Development of citations over time

All three sources show a strong increase in the numbers of citations or related figures over time. Figures 12 and 13 show the numbers of citations recorded by Google Scholar and by CrossRef year by year.

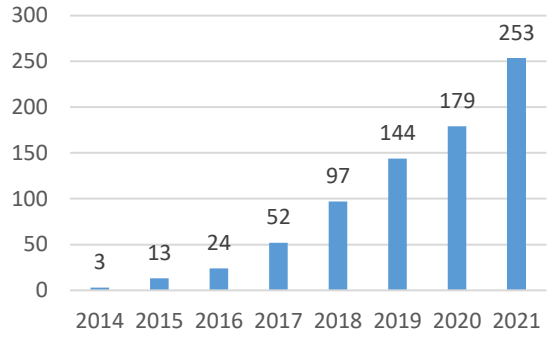


Figure 12: Number of citations in Google Scholar by years

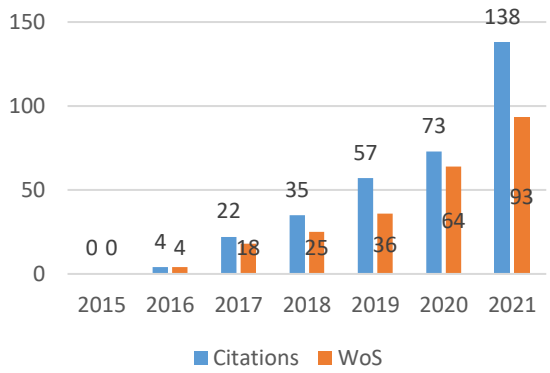


Figure 13: Number of citations and citations in WoS- journals in CrossRef by year

The displayed increase in the number of citations corresponds to annual growth rates of 88.4% for Google Scholar and 126.8% for CrossRef. It is accompanied by a significant increase in the number of citations by published work: from 2.4 (2018) to 6.1 (2021) in Google Scholar and from 0.8 (2018) to 2.6 (2021) in CrossRef.

From Scopus we can only obtain the CiteScore measure, which is calculated based on citations[1]. Figure 14 shows the development of the CiteScore for REGION (bars, left scale) and its relative ranking in the journal category "Geography, Planning, and Development" (line, right scale). Table 7 shows the corresponding numbers.

Table 7: REGION's CiteScore and position in Scopus

Year	CiteScore	Position	Out of	Percentile
2018	1.0	374	656	42nd
2019	1.5	297	679	56th
2020	2.1	264	704	62nd

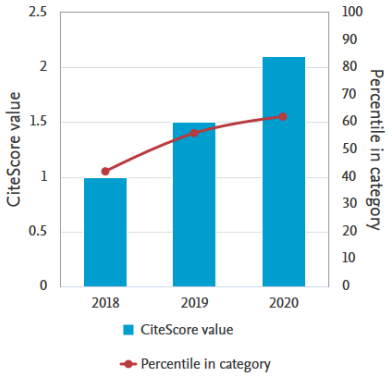


Figure 14: Scopus CiteScore Trend

As these numbers show, REGION is clearly on an upward trajectory in terms of citations and ranking among journals in cognate disciplines and is quickly developing a high reputation in the discipline.

The "Impact Factor" of REGION

REGION is not yet registered in the Web of Science. Therefore, the journal does not have an official impact factor. Based on the data from CrossRef, however, we can compute a pseudo impact factor. For that, we divide the citations in journals registered in the Web of Science of papers published in REGION in a given time interval by the number of articles published by REGION in that interval. Over the whole period, this number is 1.92, meaning that every item published in REGION in average generated 1.92 citations in a WoS-journal. This indicator is much higher for the recent periods. For 2020 and 2021, the number is 4.36, for 2021 even 5.28.

[1] "CiteScore 2020 counts the citations received in 2017-2020 to articles, reviews, conference papers, book chapters and data papers published in 2017-2020, and divides this by the number of publications published in 2017-2020." (Scopus Webpage). CiteScores for 2021 are not yet available. The journal with the highest CiteScore in a category is in the 100th percentile.

The position of REGION among regional science journals

Of the three above-mentioned sources, only Scopus allows us to compare REGION with other regional science journals. With a CiteScore value of 2.1 in 2020, REGION ranks 264 out of 704 journals in the category "Geography, Planning, and Development". This places REGION into the 62nd percentile within that category. Table 8 shows the CiteScore values and rankings of other regional science journals in the category "Geography, Planning, and Development" in 2020.

Table 8: CiteScore values and rankings of selected regional science journals

Journal	CiteScore	Position
Papers in Regional Science	3.8	120
Review of Regional Research	2.7	207
Science Regionali	2.3	235
Regional Studies, Regional Science	2.1	262
REGION	2.1	264
Investigaciones Regionales	1.5	342
Regional Science Policy and Practice	1.4	353
Review of Regional Studies	1.1	416
Revista Portuguesa de Estudos Regionais	0.3	600

Among those journals, REGION showed the second largest increase (110%) in CiteScore after Scienze Regionali (130%) between 2018 and 2020.

Most cited articles

In Google Scholar and in CrossRef we can break down the numbers of citations by article. According to Google Scholar, 85 articles (68%) were cited at least once. The eight most cited articles according to Google Scholar are shown in Table 9.

Table 9: Eight most cited articles according to Google Scholar

	Title (Author)	Citations	Year
1	Territory and sustainable tourism development: a space-time analysis on European regions (J Romão, J Guerreiro, PMM Rodrigues)	56	2017
2	Logistics sprawl in monocentric and polycentric metropolitan areas: the cases of Paris, France, and the Randstad, the Netherlands (A Heitz, L Dablanc, LA Tavasszy)	32	2017
3	Towards an integrated evaluation approach for cultural urban landscape conservation/regeneration (F Nocca, LF Girard)	26	2018
3	Infrastructure and trade: a meta-analysis (G Celbis, P Nijkamp, J Poot)	26	2015
5	A multilevel path analysis of social networks and social interaction in the neighbourhood (P van den Berg, H Timmermans)	24	2015
5	Agglomeration effects on labor productivity: An assessment with microdata (S Brunow, U Blien)	24	2015
7	Creativity, community, & growth: A social geography of urban craft beer (N Reid, JD Gatrell)	23	2017
8	Regional quality of living in Europe (P Lagas, F van Dongen, F van Rijn, H Visser)	22	2015

CrossRef shows fewer citations and therefore records only 68 articles (54.4%) with at least one citation. The eleven most cited articles according to CrossRef are shown in Table 10. The first two articles are identical in Google Scholar and in CrossRef. The rest of the lists, however, differ considerably.

Table 10: Nine most cited articles according to CrossRef

	Title	Citations	Year
1	Territory and Sustainable Tourism Development: a Space-Time Analysis on European Regions (Romão et al.)	27	2017
2	Logistics sprawl in monocentric and polycentric metropolitan areas: the cases of Paris, France, and the Randstad, the Netherlands (Heitz et al.)	19	2017
3	Increasing innovativeness of SMEs in peripheral areas through international networks? The case of Southern Italy (Calignano, Hassink)	13	2016
4	Social Capital and Economic Well-Being in Germany's Regions: An Exploratory Spatial Analysis (Botzen)	12	2016
5	A multilevel path analysis of social networks and social interaction in the neighbourhood (van den Berg, Timmermans)	11	2015
5	Towards an Integrated Evaluation Approach for Cultural Urban Landscape Conservation/Regeneration (Nocca, Fusco Girard)	11	2018
7	Analysis of Freight Trip Generation Model for Food and Beverage in Belo Horizonte (Brazil) (Oliveira et al.)	10	2017
7	Creativity, Community, & Growth: A Social Geography of Urban Craft Beer (Reid, Gatrell)	10	2017
9	Infrastructure and Trade: A Meta-Analysis (Celbis et al.)	9	2014

Earlier published articles usually had more time to accumulate citations. To correct for this and since we know each article's date of publication, we can also rank the articles by CrossRef citations per day since publication. This ranking is shown in Table 11. Despite of the standardization, the top two articles are the same as in the previous lists. Behind that, some younger articles enter the list. Interestingly, three of them (5, 6, 9) are articles that were also published in computational notebook format.

Table 11: Top ten articles by citations per day since publication

	Title	Citations	Year
1	Territory and Sustainable Tourism Development: a Space-Time Analysis on European Regions (Romão et al.)	27	2017
2	Logistics sprawl in monocentric and polycentric metropolitan areas: the cases of Paris, France, and the Randstad, the Netherlands (Heitz et al.)	19	2017
3	Towards an Integrated Evaluation Approach for Cultural Urban Landscape Conservation/Regeneration (Nocca, Fusco Girard)	11	2018
4	Teaching on Jupyter (Reades)	5	2020
5	REAT: A Regional Economic Analysis Toolbox for R (Wieland)	5	2019

6	Increasing innovativeness of SMEs in peripheral areas through international networks? The case of Southern Italy (Calignano, Hassink)	13	2016
7	Social Capital and Economic Well-Being in Germany's Regions: An Exploratory Spatial Analysis (Botzen)	12	2016
8	The Mediterranean Diet and the Increasing Demand of the Olive Oil Sector: Shifts and Environmental Consequences (Neves, Pires)	8	2018
9	European urban freight transport policies and research funding: are priorities and H2020 calls aligned? (Lozzi et al.)	8	2018
10	Analysis of Freight Trip Generation Model for Food and Beverage in Belo Horizonte (Brazil) (Oliveira et al.)	10	2017

Who cited articles published in REGION?

202 different items cited papers in REGION, 135 of them Journals in the Web of Science. The journals with the most citations to articles published in REGION are shown in Table 12.

Table 12: Journals with most citations to articles in REGION.

Journal Name	Citations
Sustainability	33
SSRN Electronic Journal	10
Social Indicators Research	7
Journal of Transport Geography	6
Regional Science Policy & Practice	5
International Journal of Environmental Research and Public Health	5
European Transport Research Review	5
Journal of Geographical Systems	5
Land	5
The Annals of Regional Science	4
Regional Studies	4
Papers in Regional Science	4

Other sources of citations are, for example, “European Planning Studies”, “Journal of Regional Science”, “Spatial Economic Analysis”, “International Regional Science Review”, “Science”, and “Regional Studies, Regional Science”. The journal is visible to researchers publishing in the leading journals in regional science, evidenced by the journals in which REGION’s papers are cited. This visibility will lead to more submissions, views, and citations in coming years.

2.5 Views of articles published in REGION

Citations respond only sluggishly to publications. It takes at least six months until an article can be cited in a published journal article. An indicator with much faster response is the number of Galley views i.e. the number of times a galley of an article is downloaded from the REGION homepage. OJS provides the corresponding information. Most of the galleys exist as PDF-files. For most articles, also HTML-versions are available. However, those files reside outside of OJS and downloads of those cannot be counted by OJS. Consequently, the reported numbers are somewhat downward biased. Additional formats counted by OJS are RMD and IPYNB, formats used for dynamic documents and computable notebooks. The 20 articles with the highest numbers of galley views are shown in Table 13.

Table 13: Twenty items with most galley views

Nr	Article	Published	Views
1	Editorial: REGION - the online open-access journal of ERSA	Vol 1 No 1 (2014)	4122
2	REGION, powered by WU	Vol 1 No 1 (2014)	2836
3	Urban Street Network Analysis in a Computational Notebook	Vol 6 No 3 (2019)	2334
4	Teaching on Jupyter	Vol 7 No 1 (2020)	2149
5	REAT: A Regional Economic Analysis Toolbox for R	Vol 6 No 3 (2019)	1606
6	A reproducible notebook to acquire, process and analyse satellite imagery	Vol 7 No 2 (2020)	1519
7	Creativity, Community, & Growth: A Social Geography of Urban Craft Beer	Vol 4 No 1 (2017)	1477
8	A Spatial Analysis of Tourism Infrastructure in Romania: Spotlight on Accommodation and Food Service Companies	Vol 5 No 1 (2018)	1416
9	A primer for working with the Spatial Interaction modeling (SpInt) module in the python spatial analysis library (PySAL)	Vol 3 No 2 (2016)	1399
10	Infrastructure and Trade: A Meta-Analysis	Vol 1 No 1 (2014)	1275
11	Spatial data, analysis, and regression - a mini course	Vol 1 No 1 (2014)	1186
12	Territory and Sustainable Tourism Development: a Space-Time Analysis on European Regions	Vol 4 No 3 (2017)	1163
13	Climate change in Lebanon: Higher-order regional impacts from agriculture	Vol 1 No 1 (2014)	1127
14	Regional determinants of residential energy expenditures and the principal-agent problem in Austria	Vol 2 No 1 (2015)	1106
15	Logistics sprawl in monocentric and polycentric metropolitan areas: the cases of Paris, France, and the Randstad, the Netherlands	Vol 4 No 1 (2017)	1101
16	Making Educational and Scholarly Videos with Screen Capture Software	Vol 2 No 2 (2015)	1073
17	Regional Spanish Tourism Competitiveness. A DEA-MONITUR approach	Vol 4 No 3 (2017)	1064
18	OpenStreetMap, the Wikipedia Map	Vol 1 No 1 (2014)	1059
19	Analysis of Freight Trip Generation Model for Food and Beverage in Belo Horizonte (Brazil)	Vol 4 No 1 (2017)	1036
20	Uncovering Norway's regional disparities with respect to natural riches	Vol 2 No 1 (2015)	1021

It is interesting to see that the two editorials from the very first issue of REGION generate the largest number of Total Galley Views. It seems, these editorials are frequently consulted by readers and potential authors to find out more about the journal. These are the only editorials in the list.

Besides the editorials, articles that deal with dynamic documents and computational notebooks occupy the top positions (3, 4, 5, 6). Most of the articles generate a substantial share of their Total

Galley Views through dynamic document (RMD, IPYNB) formats. This share goes up to 73.8%. These results confirm that these are important formats for scholarly publishing and REGION's innovative decision to allow for those formats and promote them, was correct.

Ranking articles by the number of Total Galley views favours earlier published articles. To correct for the different times of publication, we compute Total Galley Views per day since the respective article was published. The ranking by views/day is shown in Table 14.

Table 14: Twenty items with most galley views per day since published.

Nr	Article	Published	View/day
1	A reproducible notebook to acquire, process and analyse satellite imagery	Vol 7 No 2 (2020)	3.78
2	Teaching on Jupyter	Vol 7 No 1 (2020)	3.26
3	Urban Street Network Analysis in a Computational Notebook	Vol 6 No 3 (2019)	3.21
4	The Pandemic Economy	Vol 8 No 2 (2021)	2.24
5	The promise of endogenous potential in times of crisis	Vol 8 No 2 (2021)	2.19
6	Spatial Shopping Behavior in a Multi-Channel Environment: A Discrete Choice Model Approach	Vol 8 No 2 (2021)	2.10
7	REAT: A Regional Economic Analysis Toolbox for R	Vol 6 No 3 (2019)	2.02
8	Isolation and well-being in the time of lockdown	Vol 8 No 2 (2021)	1.98
9	Regional Innovation Systems of Medical Technology	Vol 8 No 2 (2021)	1.93
10	Flatten the Curve!	Vol 7 No 2 (2020)	1.86
11	Urban tourism and Covid-19 in Poland	Vol 8 No 2 (2021)	1.86
12	Approximating the impact of COVID–19 on regional production in countries with scarce subnational data	Vol 8 No 2 (2021)	1.71
13	Destination management and sustainable development through the common lens of the Commons	Vol 8 No 1 (2021)	1.62
14	Antibiotic Self-Medication and Antibiotic Resistance: Multilevel Regression Analysis of Repeat Cross-Sectional Survey Data in Europe	Vol 8 No 2 (2021)	1.58
15	Editorial: REGION - the online open-access journal of ERSA	Vol 1 No 1 (2014)	1.47
16	Random Parameters and Spatial Heterogeneity using Rchoice in R	Vol 7 No 1 (2020)	1.38
17	Demonstrating the utility of machine learning innovations in address matching to spatial socio-economic applications	Vol 6 No 3 (2019)	1.38
18	Exploring long-term youth unemployment in Europe using sequence analysis: a reproducible notebook approach	Vol 6 No 3 (2019)	1.32
19	Analysing Higher Educational Institutions' Role in Fulfilling their Third Mission	Vol 8 No 1 (2021)	1.21
20	The determinants of Covid-19 mortality rates across Europe	Vol 8 No 1 (2021)	1.20

As can be expected from the previous table, the recently published articles about dynamic documents and computational notebooks occupy the top positions (1, 2, 3, 7). Note that only one of the twenty articles in this list was published before 2019. This shows that more recently published articles in REGION draw substantially more attention than earlier ones and demonstrates the increasing relevance of REGION. The exception is one of the two editorials from the very first issue that were mentioned above.

The numbers reported in "View/day" in the table apply to a single article. Over the whole period and for all published articles, REGION did generate 93,222 Total Galley Views and 164,560 Abstract Views. This implies that in average 56.65% of the abstract views led to the download of the corresponding article. Since all the articles ever published in REGION are available on the journal's homepage, we can aggregate the "View/day" numbers for all the articles to find that in average, 95.10 articles published in REGION are downloaded every day.

More directly than citation counts, the numbers of galley views show that REGION is becoming increasingly visible and impactful. Recent innovations have enhanced the journal's impact and there is a persistent high level of engagement – though downloads and page views – with the journal's output. The strong performance of recently published articles in terms of galley views will probably result in further increasing numbers of citations in coming years.

2.6 Access to the REGION homepage

We use Google Analytics to monitor the use of the REGION homepage. The following information is based on Google Analytics.

Development over time

Table 15 and Figure 15 shows the numbers of sessions and users over the years. The numbers for 2021 were extrapolated for the whole year (i.e., multiplied by 3/2).

Year	Sessions	Users
2014	3,877	2,256
2015	5,845	2,746
2016	6,166	3,141
2017	7,413	4,509
2018	7,991	5,128
2019	8,097	5,455
2020	13,499	9,432
2021	20,126	12,467

Table 15: Sessions and users at the REGION homepage

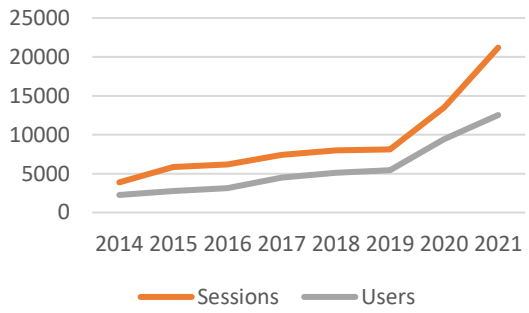


Figure 15: Sessions and users at the REGION homepage

The numbers of sessions and the numbers of users increased with an average annual growth rate of 18% and 19%, respectively. As figure 15 shows, this growth was particularly strong in the last two years. Since 2019, the number of sessions grew by 148.6% (57.7% annually), the number of users by 128.5% (51.1% annually).

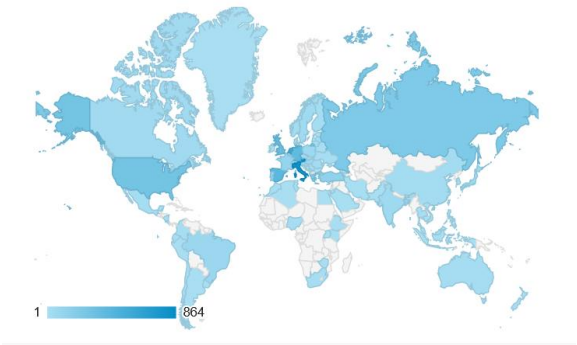
Geography

The growth of users over the years was accompanied by an expansion of the number of countries the users came from and by shifts in the geographical composition of users. Table 16 shows the top 10 countries of users broken down by the years.

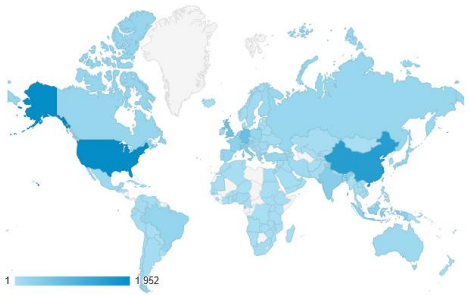
Table 16: Top countries of users at the REGION homepage

Top Countries	2014	2015	2016	2017	2018	2019	2020	2021
1	Germany	Germany	US	US	US	US	US	US
2	Italy	Netherlands	UK	UK	France	UK	UK	China
3	Spain	US	Austria	Italy	UK	Germany	Germany	Germany
4	UK	Austria	Germany	Spain	Germany	Spain	Italy	UK
5	Austria	Italy	Italy	Germany	Spain	Italy	Indonesia	Italy
6	Greece	Spain	Spain	Brazil	Italy	Netherlands	Netherlands	India
7	Russia	UK	Netherlands	Netherlands	Greece	Austria	Austria	Indonesia
8	Netherlands	Russia	Russia	Austria	Netherlands	France	Spain	France
9	US	Greece	India	Greece	Austria	India	China	Austria
10	France	Poland	Greece	Poland	Poland	Poland	France	Netherlands

We see the growing importance of the US and China and the increasing number of developing countries. These observations are supported when we put the users on the map. Map 3 shows the REGION users between 2014-09-01 and 2015-08-31, whereas Map 4 those between 2021-01-01 and 2021-12-31. We see the wider spread among countries and the growing importance of non-European countries.



Map 3: Users by country, 2014/15



Map 4: Users by country 2021

2.7 The financing of REGION

As far as the financial aspects of REGION are concerned, one must distinguish two periods:

- The *initial period* which was financed by the FWF project
- The *continuation period*, financed by contributions from ERSA.

The initial period

The first three years of the operation of REGION were financed by a grant from FWF, the Austrian science foundation. This grant covered all the setup cost of the journal plus the first three years of its operation. The granted amount was € 50,000. Only € 29,684.50 of the grant was actually used for REGION. The remaining € 20,315.50 was returned to FWF when the account was closed on July 12th, 2017. Table 17 shows the breakdown of the expenses by category.

Table 17: Expenses in the initial period by category

Support staff	Articles	Marketing	Meetings	Total
45.98%	20.76%	15.47%	17.79%	100%

The continuation period

In the FWF-proposal WU and ERSA both agreed to continue the journal for at least six more years after the end of the funding period. While WU contributes the hosting of the journal, ERSA provides editorial work and promotion. Most of ERSA's input is provided in kind via the voluntary work of the editorial team and the promotion activities of the ERSA office.

Expenditure on REGION is extremely low. ERSA's expenditure on REGION for the continuation period so far is € 4,536.64. This amounts to € 1,134.16 on average per year or to € 73.17 per published paper.

Of the total expenses, 86.67% are for copy editing (€ 3,932.12). The remaining 13.33% are travel expenses for meetings of the editorial team, which could not be covered from other sources. Since 2020, the editorial team switched to online meetings avoiding such costs.

sWith the continued support of WU, REGION's editorial team, and ERSA's office, the costs per published paper can be kept at this low level also in the future. The basis for this is:

- The cooperation with WU,
- Electronic and open access publishing (avoids administrative overhead)
- The use of Open Journals System as management platform
- Online meetings of the editorial team
- Streamlined production processes
- Substantial unpaid input by the editorial team

3. Conclusion

As the data show, ERSA's journal REGION is on track to become a major journal in regional science and to fulfil its aim, "to support the exchange of ideas among regional science researchers worldwide". Submissions are sufficiently high and come from authors from a wide range of countries. The journal publishes two regular issues every year plus special issues. According to all available sources, the numbers of citations increase strongly, particularly in the most recent years. The same holds for the number of article downloads and the sessions on the journal webpage. Based on this information, REGION can expect further growth in citation numbers and in submissions.

REGION achieved this at very low out of pocket costs. Essential factors for this performance of the journal are:

- the support provided by ERSA, WU, and the voluntary input from the editorial team
- the online format and the related online management
- free access to all the content for readers over the Internet
- no-cost publishing for all the authors (no article processing charges)
- Creative Commons licensing and reuse of material by authors and readers

The data suggest that these factors go hand in hand and support each other.