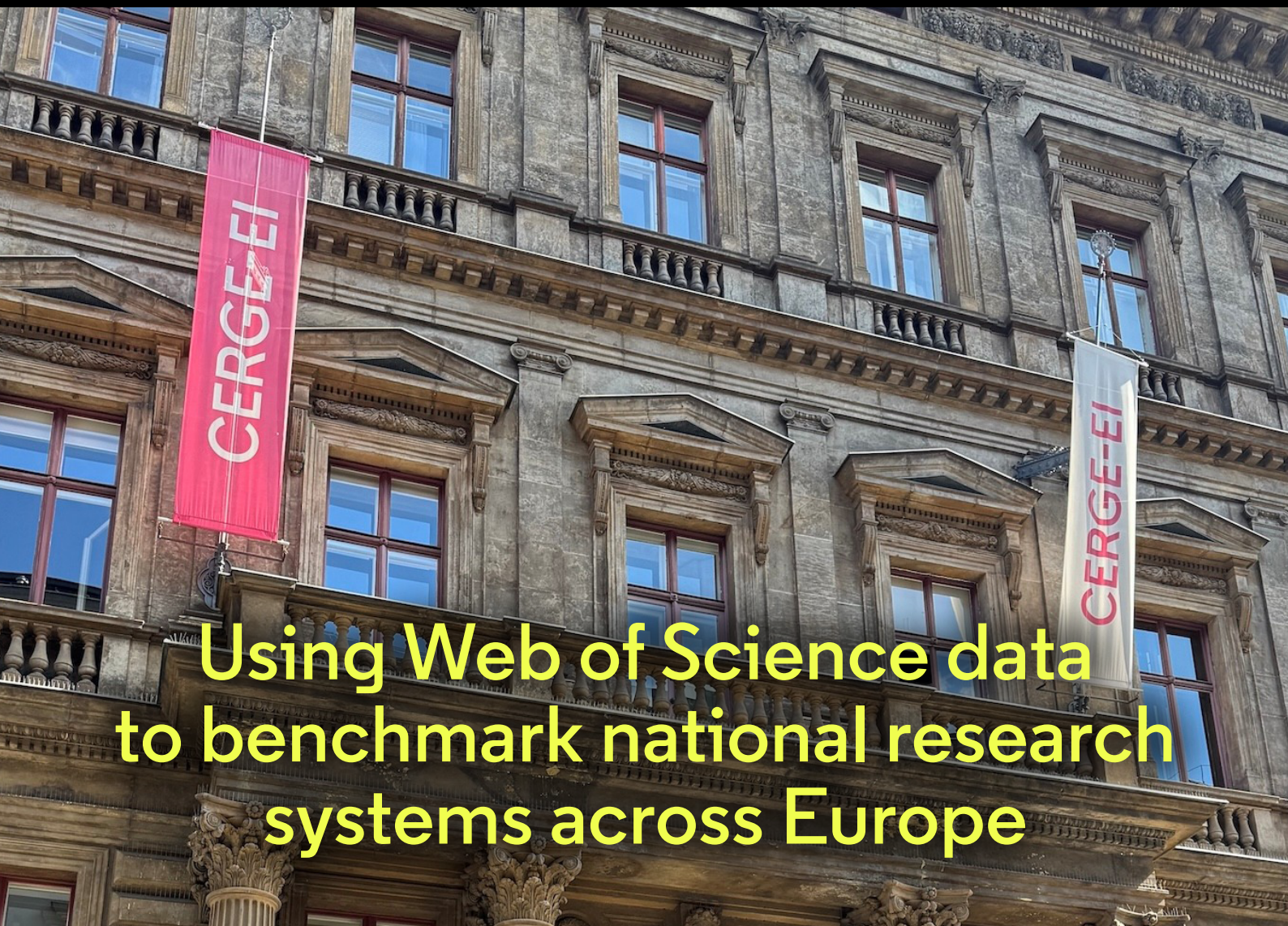




Customer

IDEA (Institute for Democracy and Economic Analysis) team at CERGE-EI (Center for Economic Research and Graduate Education – Economics Institute)

Solution

[Web of Science custom data](#)

Challenge

The IDEA team set out to create a field-specific evidence base for comparing EU research systems, separating research capacity, publication scale, journal influence, citation impact and productivity.

Outcome

Using integrated Web of Science data, the team built an interactive, web-based EU benchmarking application that enables large-scale analysis of national research portfolios and supports more informed policy decisions in the region.

Creating a clearer evidence base for research policy

For nearly two decades, Daniel Münich, director of the [IDEA think tank](#) at [CERGE-EI](#), has worked in research evaluation, governance and funding in the Czech Republic. That experience highlighted a persistent science policy challenge: without consistent international benchmarks, it is difficult to tell whether apparent strength in a field reflects research quality, field size, researcher productivity or population scale.

To address that gap, Münich and Taras Hrendáš, a fellow IDEA researcher, developed an EU comparison application. The [public dashboard](#) compares academic publication output and citation impact across EU countries, helping governments, research councils, universities and analysts understand national research systems field by field. As Münich said, “The application is much more than a league table of EU countries. It offers a structural portrait of national research systems at the field level.”

Building the application around field-specific comparison

The application is designed to compare like with like. Users can select a research field, then compare countries using indicators that account for major differences in field size, publication culture and citation behavior. Publication

and citation counts can be standardized per 10 million inhabitants or per authors specialized in the selected field, allowing countries of different sizes to be assessed on a more meaningful basis.

Separating influence, capacity and productivity

The dashboard turns complex publication and citation data into practical comparisons, including how active a country is in a field, whether its work appears in more influential journals, how strongly that work is cited and where

that recognition comes from. It also estimates the number of active publishing researchers by field, enabling productivity analyses that distinguish between a large research community and a highly productive one.



Choosing Web of Science for an integrated, trusted data foundation

To support rigorous, field-level comparisons, CERGE-EI needed a curated dataset, consistent citation relationships, category-normalized impact indicators, journal influence measures and disambiguated researcher identifiers. The integrated Clarivate data environment made it possible to connect these dimensions within one analytical framework.

Web of Science Core Collection data provided the curated foundation for publication and citation analysis. Journal Citation Reports data added Article Influence Score-based journal groups, allowing the application to distinguish publication volume from position within

the journal system. InCites data supplied citation percentile values and a consistent world benchmark, while ResearcherID data made it possible to estimate the active publishing community in each field and country.

That combination was essential because the dashboard asks questions that broader R&D statistics often cannot answer at comparable depth. Traditional personnel statistics typically classify researchers by institutional units, such as departments or faculties, which can be inconsistent across countries and less informative for interdisciplinary research.

“Without an integrated Web of Science data foundation, this kind of field-specific comparison of research capacity, publication quality, citation influence and productivity would not have been possible.”

Taras Hrendáš, IDEA at CERGE-EI

Turning data into interactive, policy-relevant analysis

The dashboard presents paired graphs that help users examine both quantity and quality. Users can compare publication output by journal influence, shift from bar charts to scatter plots, export graphics for reports and presentations and filter results by country, field or benchmark group. Citation views show not only how often work is cited, but whether those citations come from more or less influential journals.

The application also supports a rather unique analysis of research capacity and publication productivity. For example, policymakers can examine whether a country has relatively more natural scientists

than social scientists, whether a field is smaller than in comparable countries, or whether output in influential journals reflects many active authors or strong productivity within a smaller community.

Additional filters add further nuance. Users can exclude author self-citations or domestic citations, helping reduce distortions where citation-based funding incentives may encourage self-citation or where research is cited primarily within a national “island.” These options support a more careful interpretation of research influence and international reach.

Findings, community value and future direction

Early use of the dashboard has already surfaced patterns that are difficult to see in conventional statistics, such as fields where publication volume is strong but citation reach is limited, or countries where research output is concentrated in less influential journals. These insights help users move beyond topline counts to understand the underlying strengths, gaps and structures within national research systems.

Münich and Hrendáš see it serving researchers, university leaders, funders and policymakers across Europe. By combining measures of productivity and influence with normalization by field and research capacity, the application can help inform national research strategies and investment decisions. Future work may update time periods and support additional analytical views, continuing to show how trusted Web of Science data can power large-scale, rigorous benchmarking for evidence-based research policy.

About Clarivate

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