Determining the health of the research enterprise

Many universities come to Clarivate to understand their research output and position among other research institutions around the world.

One example of this occurred when the leader of the global division of a private, U.S.-based R1 institution was concerned about their international standing. Maintaining global visibility and a quality reputation was key to recruiting the best international students and faculty. A comprehensive review was in order, but assembling the data would be a lengthy, cumbersome project. They didn't want to wait months for results. They turned to Clarivate Academia & Government Consulting. Combining data and expertise, the team quickly delivered a comprehensive report on research strengths and areas of opportunity, creating a foundation for focused action.

Maintaining global visibility and a quality reputation.

Clarivate

Evaluating the health of the research portfolio

34K+

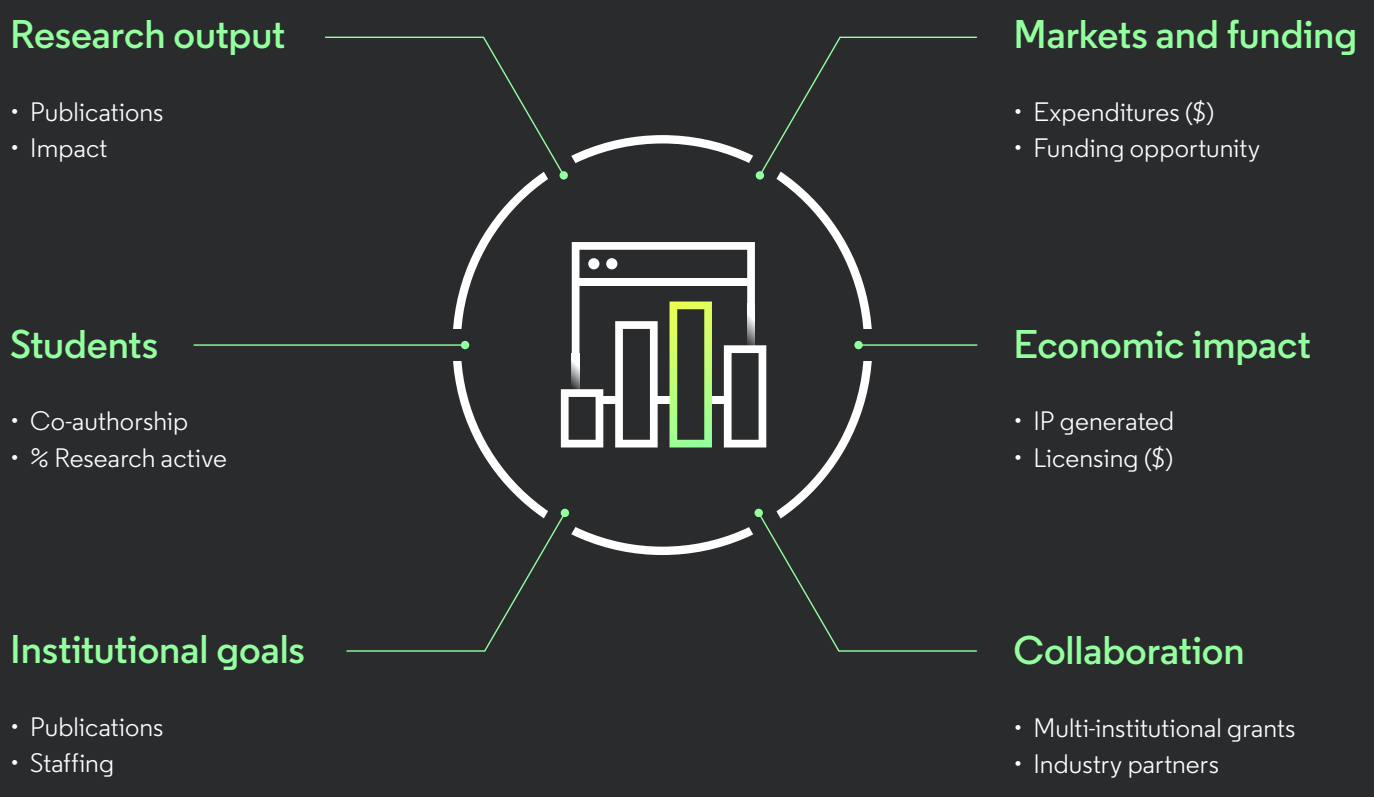
scholarly journals

Clarivate Consulting started with a Research Enterprise Health Check, which provided current and historical trend data of the university's research performance.

With direct access to Web of Science data, the team quickly delivered a multi-dimensional review of the research portfolio's robustness, with additional analyses focused on the drivers of research value. This complete review would indicate any issues that could impact domestic or international standing.

It's important to understand the data that underlies the analyses conducted by the Clarivate Consulting team. Web of Science is the world's oldest, most widely used and authoritative database of research publications and citations. Its balanced, and complete coverage of the world's leading research spans 34,000 scholarly journals. It provides an extraordinarily comprehensive data set that can be analyzed for a breadth of use cases, and particularly for research assessment.

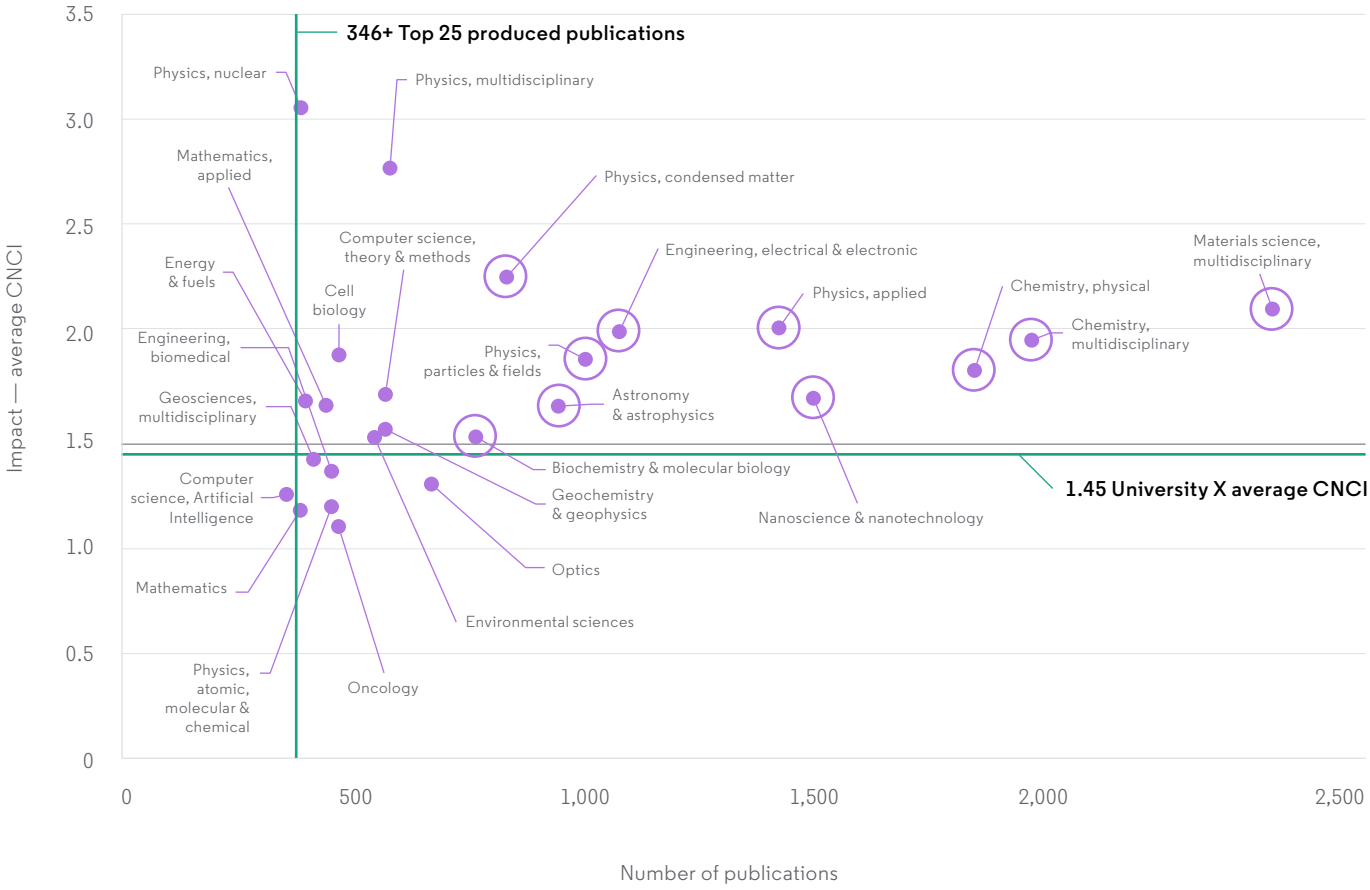
Figure 1: Research value drivers / quantitative metrics.



Scientific publication frequency and impact

The Consulting team analyzed the University's research focus areas and their alignment with emerging and fast-growing areas of research.

Figure 2: Top 25 most prolific disciplines.



Source: Web of Science data analyzed with InCites Benchmarking & Analytics

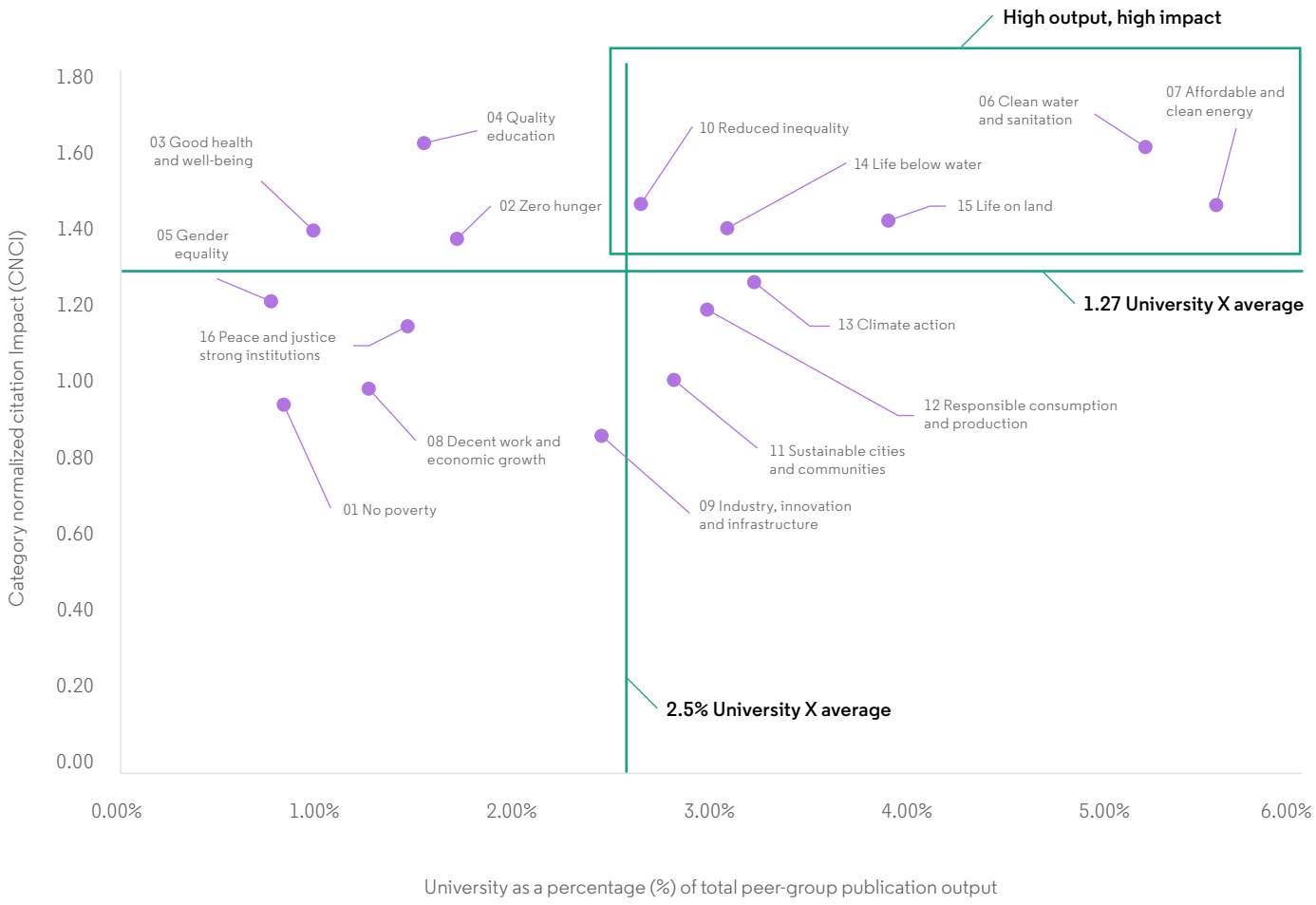
Figure 3: Research activity map — total scientific and research output, by discipline.

Source: Web of Science data analyzed with InCites Benchmarking & Analytics

Making an impact on the world

An important institutional goal was to contribute to a better planet and quality of life around the world. Effectively delivering on this goal was also a way to maintain a strong international brand. By reviewing this University's publications as they relate to the United Nation's Sustainable Development Goals, the team was able to definitively prove that the University was achieving this goal with research that was both frequent and impactful.

Figure 4: SDG goal performance — research output and impact vs. peers.**



Source: Web of Science data analyzed with InCites Benchmarking & Analytics

**Output & impact — only displaying goals in which the University has produced more than 10 publications

A solid R1 university when compared to peers

This university was operating a healthy research enterprise, with publication output that followed an identical trajectory as their peer universities. The consulting team uncovered some issues in the University's contribution to patent development, but nothing that would cause the University to fall in international rankings.

Importantly, the Health Check revealed an important network that could be used to bolster international student and faculty recruiting.

Figure 5: Carnegie classifications data.

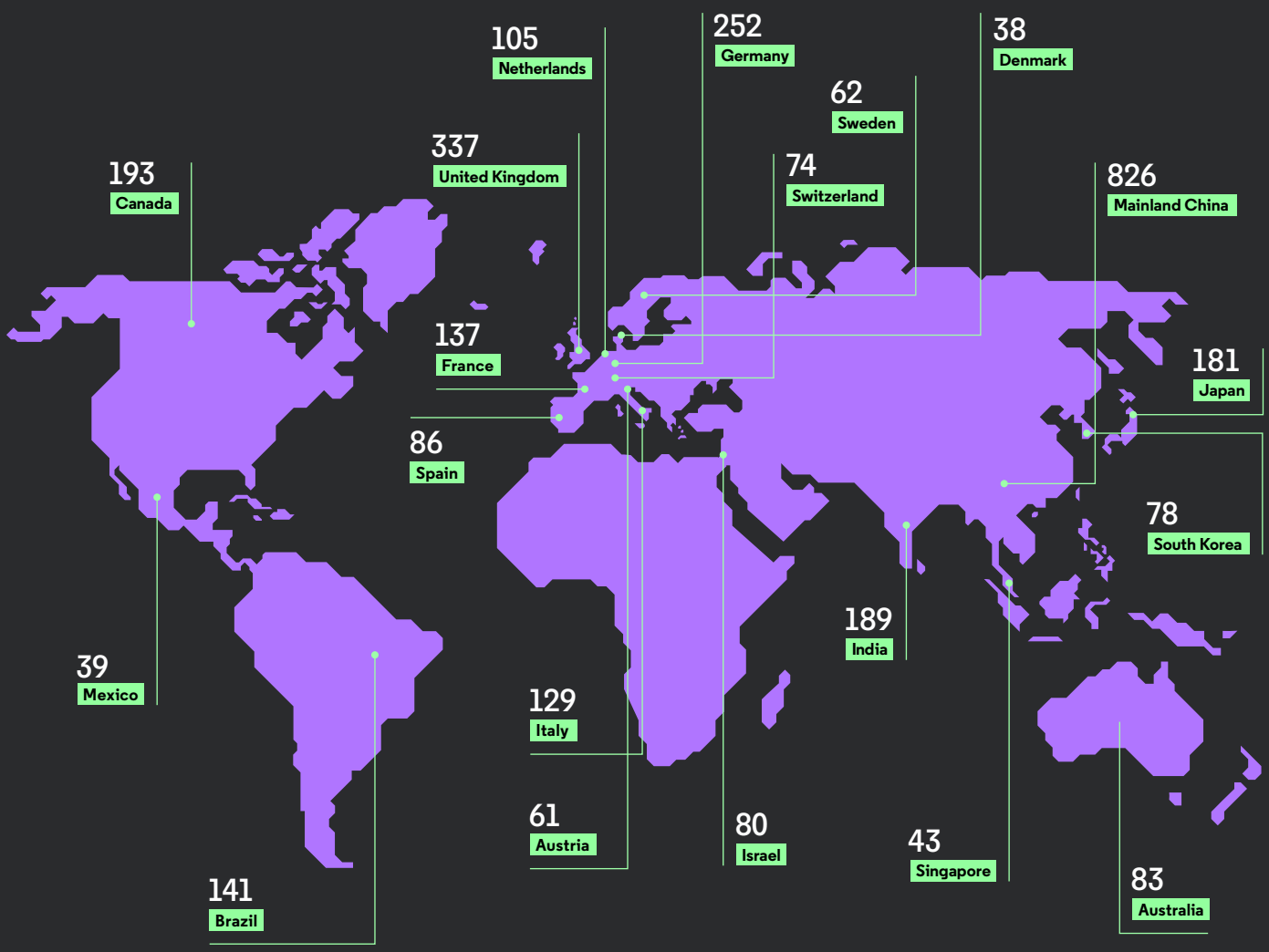
HERD — FY2020 #100+ in research expenditures	**University X R1**	**R1 Universities** Very high research activity		**R2 Universities** High research activity	
		Median	**Range: low-high**	**Median**	**Range: low-high**
STEM research expenditures ($000)	$175,000+	$273,789	$22,612 - $3,104,669	$21,808	$539 - $241,271
Non- STEM research expenditures ($000)	$5,000+	$21,824	$940 - $146,396	$2,658	$0 - $34,334
STEM doctorates	150+	158	19 - 635	17	0 - 119
Humanities doctorates	20+	32	0 - 174	0	0 - 46
Social Science doctorates	15+	28	0 - 96	1	0 - 50
Professional doctorates	5+	60	0 - 370	24	0 - 491
Research staff	800+	1,498	231 - 8,774	554	93 - 2,357

Global research collaborations network to support international recruiting

The Research Enterprise Health Check included a comprehensive review of global research collaborations. This example university had thousands of significant author and research relationships in universities around the world. The Health Check pinpointed both the universities and the authors to create the foundation for the Global Division's strategy to grow international recruitment.

With this combined intelligence they could see how well they are meeting SDG goals and influencing other research areas.

Figure 6: Top 20 non -U.S. Nations by number of collaborations*. Publications on which a researcher is first or second author.



Source: Web of Science data analyzed with InCites Benchmarking & Analytics

Other universities taking action

Similar to the above example, many other universities have taken advantage of this report. Today, they are using the data to inform their decision-making about program investments, talent recruitment and funding acquisition strategies. Actions based on this data have helped to support their future ranking goals and global reputation among the research community — driving additional domestic, international and corporate partnerships.

The East Tennesse State University Engineering department also used the Research Enterprise Health Check to communicate their impact across their institution, sharing with deans, faculty and marketing colleagues. The Health Check offers a data point beyond just grant dollars that demonstrates the impact of their research. For the East Tennesse engineering program, this opens conversations about non-STEM work and about the impact of that output. They are currently using the data from the Health Check as the foundation for their strategic plan, putting everyone on the same page. They plan to mirror this same approach for other departments and disciplines in the future.

"The Research Enterprise Health Check provided data visualization and expertise that has helped move ETSU closer to its vision of a premier R2 research university. The REHC outputs continue to foster conversations in ETSU's research community. Those conversations have created positive research-related momentum at the institution."

Nicholas E. Hagemeier, PharmD, PhD,
Vice Provost for Research and Chief Research Officer
East Tennessee State University.

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About Clarivate

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Improve research performance and focus your investments with consulting expertise and guidance that draws connections between research and downstream impact.

The Clarivate Academia & Government Consulting team of research leaders and data scientists apply decades of experience, quality data, and specialized approaches to uniquely answer your complex questions.

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