Times Higher Education

THE SHAPE OF INTERDISCIPLINARY SCIENCE

Regional Patterns and Insights from ISR 2027

November 2026

Interdisciplinary Science Rankings 2027
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Executive Summary 04

1. Introduction 06

2. Three Pillars, Eleven Metrics 08

3. What the Rankings Show 10

3.1 Growing Participation, Distributed Strength 11

3.2 Across the Three Pillars 14

4. From Measurement to Strategy 18

5. Common Priorities, Different Conditions 20

5.1 Seven Regions, Different Conditions 21

5.2 Shared Ambitions, Different Conditions 27

6. Case Studies: How It's Built 28

Case Study: Massachusetts Institute of Technology (North America) 30

Case Study: City University of Hong Kong (East Asia & Pacific) 32

Case Study: Georgia Institute of Technology (North America) 34

Case Study: King Saud University (Middle East & North Africa) 36

Case Study: Northwestern University (North America) 38

Case Study: RMIT University (East Asia & Pacific) 40

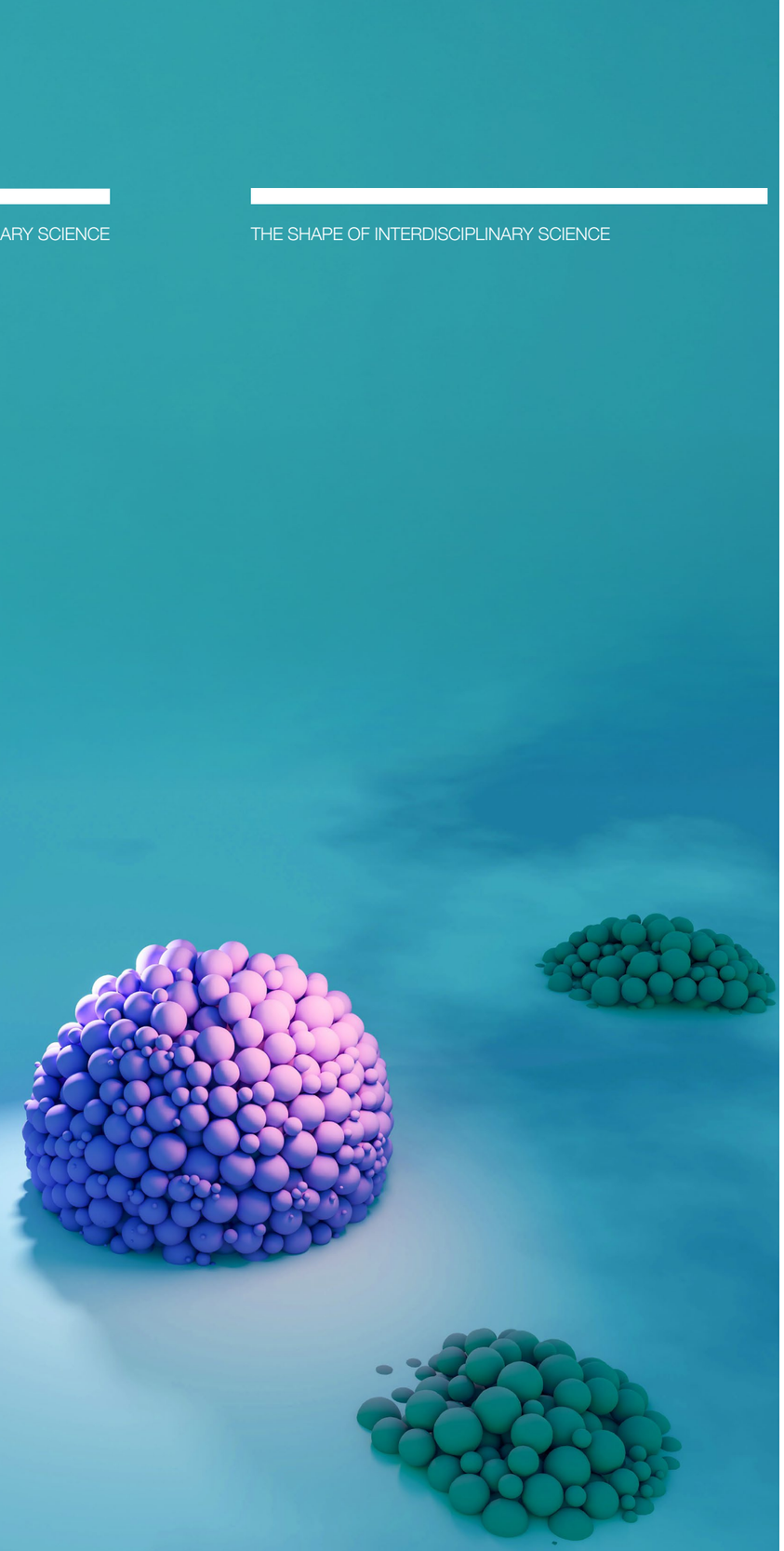
Case Study: University of São Paulo (Latin America & the Caribbean) 42

7. Building on the Data – the Role of GHEIN 44

8. AI is changing the landscape 46

9. What the Results Ask of Us 48

Conclusion 55



THE SHAPE OF INTERDISCIPLINARY SCIENCE

CONTENTS

Authors

Louise Lee
Principal Consultant,
Consultancy

Kajal Ghaghada
Senior Research Executive,
Consultancy

Catherine Thomson
Data Delivery Manager,
Data

Acknowledgements

Dr Megan Kenna
Founding Executive Director,
Schmidt Science Fellows

Matt Goode
Deputy Executive Director,
Schmidt Science Fellows

Dr Ishan Cader
Managing Director,
Consultancy

Kai Kang
Data Editor,
Data.

Shivani Bhola
Lead Designer,
Strategic Marketing Services

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EXECUTIVE SUMMARY

The Interdisciplinary Science Rankings (ISR) were established by Times Higher Education (THE) in partnership with the Schmidt Science Fellows (SSF), combining the SSF's mission to advance interdisciplinary science with THE's expertise in global rankings.

The rankings measure interdisciplinary science across three pillars, Inputs, Process, and Outputs, spanning dedicated interdisciplinary science research funding and the broader STEM industry-research environment, the structures that sustain interdisciplinary work, and the outputs and impact it generates.

Supporting this work is the Global Higher Education Interdisciplinary Network (GHEIN), which connects senior research leaders through regional chapters, and the Interdisciplinary Science Forum (ISF), its annual convening of university leaders, researchers, funders, and policymakers. Together, GHEIN and ISF work with the rankings to translate the data into peer dialogue, surfacing the region-specific priorities a ranking alone cannot capture; it is these discussions that inform this paper's regional analysis and case studies.

Key Findings and Global Trends

No single system leads across the board. Different regions are strongest on different pillars, and the more instructive story lies in how they build and express their interdisciplinary strength:

1. **Different regions lead on different pillars.** The ranked universities in East Asia & Pacific record the strongest average on Inputs (funding), while those in North America lead on Process (structures) and Outputs (research and its reach).

2. **Tenure and career promotion systems are the shared weakness globally.** In every region, the strongest performance within the Process pillar is having specific facilities for interdisciplinary science research, while the science tenure and career promotion system measure returns the weakest result: support is being built into buildings and administration faster than into academic careers.

3. **Funding reflects orientation.** South Asia, Sub-Saharan Africa, and Middle East & North Africa direct a high share of their research funding to interdisciplinary science, which could reflect the importance of applied research to solve specific problems in geographies facing immediate and acute societal challenges.

4. **Interdisciplinarity takes different forms.** Latin America & the Caribbean and Sub-Saharan Africa produce proportionally the most interdisciplinary science research, while North America scores higher on its measured quality and reputation — a reminder that a strong disciplinary base remains a fundamental foundation on which interdisciplinary work can draw.

Beyond the rankings themselves, some institutions have reported treating the framework as a strategy tool, using its pillar structure to diagnose their own strengths and gaps and to prioritize action. Feedback provided during ISR data collection reflects this: many respondents cited new cross-faculty collaboration mechanisms, shared infrastructure, capacity-building initiatives, or dedicated funding since taking part.

Across the institutions examined in this paper, one structural pattern recurs: a horizontal unit, such as an institute, center, platform, school, or cluster, that cuts across departments and is directed at chosen priorities, while researchers in most cases keep a home in their discipline. The case studies illustrate this through institutions with well-developed interdisciplinary research, whose approaches differ in origin and in form. The pattern is a recurring model among these institutions.

Recommendations

For universities.
Recognition of interdisciplinary contributions in tenure and promotion emerges as one of the clearest priorities for institutional reform, through promotion criteria, joint-appointment review, and leadership investment, alongside durable cross-cutting structures that preserve disciplinary depth rather than replace it.

For funders.
Review mechanisms, time horizons, and award structures should be adapted to how interdisciplinary work actually develops, while external funding in less-resourced regions should strengthen local and regional priorities rather than redirect them.

For the Global Higher Education Interdisciplinary Network (GHEIN), Times Higher Education (THE), and the Schmidt Science Fellows (SSF).
The network is positioned to document practical models for recognition and structure, test leadership development for the AI era, and track which approaches produce durable results across different regional and institutional conditions.



SECTION 1
INTRODUCTION



Health, climate, energy, artificial intelligence — most of the research questions that matter now sit across the boundary of more than one discipline, and answering them depends on whether institutions can work across that boundary.

Interdisciplinary research is understood, resourced, and rewarded differently from one part of the world to another, shaped by local funding systems, academic structures, and stage of development. Interviews with senior research leaders at universities around the world, conducted for this report, converge on a consistent argument: interdisciplinary science becomes durable when institutions align four things — talented people able to cross fields; structures that connect them while maintaining their disciplinary home; incentives, particularly in hiring and promotion, that recognize what they contribute; and funding that gives collaboration time to mature.

Where all four are in place, these leaders describe interdisciplinary work that outlasts the individuals who started it; where one is missing, even well-resourced efforts tend to stay dependent on a handful of champions, or on a grant cycle.

Artificial intelligence (AI) adds a further layer to this alignment. AI is lowering some of the barriers to working in an adjacent field, but it is also raising the technical floor — shared compute, data, and expertise — needed to do so, and making disciplinary depth and human judgment more valuable, not less, because so much can now be generated quickly. **Section 8** returns to this directly, including early evidence from GHEIN's regional chapters on how institutions in different parts of the world are responding, and the challenges they are running into as they do.

This paper reads the ISR 2027 results alongside conversations convened through GHEIN — the Global Higher Education Interdisciplinary Network, which brings together research leaders from universities around the world — as well as separate interviews and case studies from universities across the network, so that the numbers are interpreted in light of the conditions behind them rather than in isolation. After a brief account of the methodology in **Section 2**, **Section 3** sets out the key findings from ISR 2027 across the three pillars, **Section 4** examines how institutions are using the framework to guide strategy, **Section 5** reads the findings through a regional lens, **Section 6** presents case studies of institutions with well-developed interdisciplinary research, **Section 7** examines the role of GHEIN in building on the data, **Section 8** considers what AI is changing, and **Section 9** sets out what universities, funders, and GHEIN can each do next.

SECTION 2
THREE PILLARS, ELEVEN METRICS

ISR structures interdisciplinary science performance in three pillars, Inputs, Process, and Outputs, measured across eleven metrics.

Inputs combine two distinct measures: the proportion of an institution's STEM research funding dedicated to interdisciplinary science research (i1), and its total STEM industry research income per academic staff member (i2). The second measure reflects the broader STEM industry-research environment and should not be interpreted as funding used specifically for interdisciplinary science research.

Process captures the structures that sustain interdisciplinary science research. Four measures ask whether an institution provides recognized measures of interdisciplinary science research success, dedicated physical facilities, administrative support, and a tenure or promotion system that recognizes interdisciplinary science research.

Outputs carry the greatest weight, and capture the volume, reach, quality, and standing of interdisciplinary science research: the number and proportion of interdisciplinary science publications, their utility beyond the originating discipline, their quality as measured by the 75th-percentile field-weighted citation impact, and the institution's reputation for supporting interdisciplinary science teams.

The Input and Process metrics are drawn from data institutions submit through THE's data collection portal, while the Output metrics are derived from bibliometric analysis of publication data and from a reputation survey of academics. Full metric definitions and weightings are set out in **Figure 1.**

Figure 1 ISR metrics and weightings

Metric	Name	Weight
i1	Proportion of STEM research funding dedicated to interdisciplinary science research	8.00%
i2	Amount of STEM industry funding, normalized by staff numbers	11.00%
p1	Does your institution provide measures of interdisciplinary science research success within applicable disciplines?	4.00%
p2	Does your institution provide specific physical facilities for interdisciplinary science research teams within applicable disciplines?	4.00%
p3	Does your institution provide specific administrative support for interdisciplinary science research teams within applicable disciplines?	4.00%
p4	Does your institution have a tenure or career promotion system in place that recognizes interdisciplinary science research within applicable disciplines?	4.00%
o1	Number of interdisciplinary science research publications	10.00%
o2	Proportion of interdisciplinary science research publications	5.00%
o3	Utility of interdisciplinary science research outside of discipline (citation)	5.00%
o4	Quality of interdisciplinary science research publications, measured by the 75th-percentile FWCI	20.00%
o5	Reputation of support for interdisciplinary science teams	25.00%

SECTION 3
WHAT THE RANKINGS SHOW

This section summarizes the ISR 2027 results. It presents the headline results first, then works through the three pillars in turn, reporting the regional, country, and institutional patterns the data reveals. The interpretation of those patterns, and the reasons behind them, follows in the regional analysis in Section 5.

3.1 Growing Participation, Distributed Strength

ISR 2027 ranked 1,058 institutions across 102 countries, up from 911 across 94 countries in 2026, an increase of about 16 percent. Across the seven ISR reporting regions, Middle East & North Africa has the most ranked institutions (291), followed by Europe & Central Asia (228), East Asia & Pacific (174), South Asia (167), Latin America & the Caribbean (101), North America (56), and Sub-Saharan Africa (41). India and Turkey had the largest numbers of universities receiving a numeric rank, with 102 and 89, respectively.

Because participation in ISR is voluntary, the ranked cohort comprises institutions that chose to participate and received a published ranking result; it should not be treated as representative of the global higher education sector as a whole. Within this cohort, “numeric rank” refers specifically to institutions assigned an individual ranking position.

Figure 2 Number of ranked institutions by region, ISR 2027

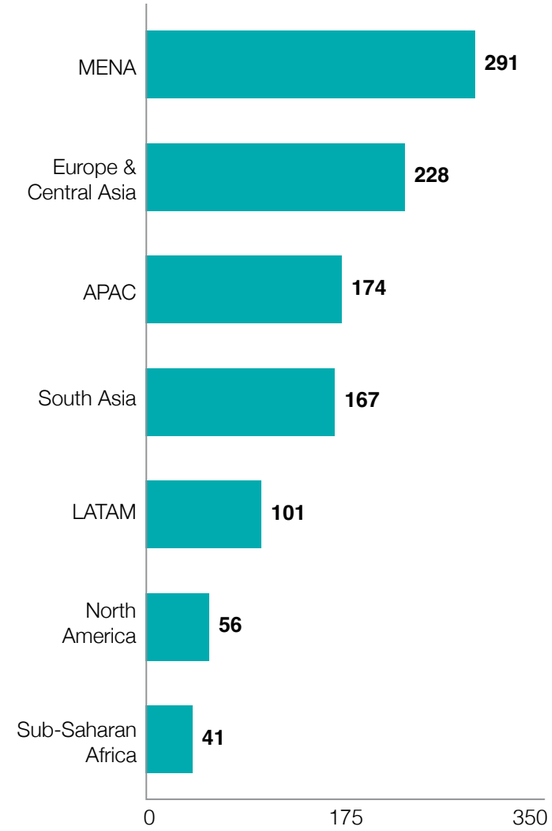


Figure 3 Top 10 universities, ISR 2027

Rank	University	Country/ territory	Score	Input	Process	Output
1	Massachusetts Institute of Technology	United States	89.5	80.7	91.7	91.6
2	National University of Singapore	Singapore	88.5	77.1	83.3	93.0
3	Stanford University	United States	87.9	67.2	95.8	92.1
4	California Institute of Technology	United States	87.4	80.3	83.3	90.4
5	Carnegie Mellon University	United States	86.9	84.9	100.0	84.2
6	Duke University	United States	86.5	80.5	100.0	84.9
=7	Nanyang Technological University, Singapore	Singapore	86.3	87.6	66.7	90.7
=7	University of Hong Kong	Hong Kong	86.3	90.7	83.3	85.8
9	Wageningen University & Research	Netherlands	85.7	72.4	66.7	94.2
10	University of California, Berkeley	United States	85.4	71.4	75.0	92.0

Three features stand out at the top of the table. U.S. institutions perform strongly, accounting for six of the top ten universities. Singapore places two, the National University of Singapore at second and Nanyang Technological University, Singapore at joint seventh. Among countries and territories with at least five ranked universities, Hong Kong records the highest average overall score (74.4). Below the headline, the more instructive finding is that no single system leads on every measure. Different regions, and different countries and territories, lead on different pillars.

Figure 4 Three Key Pillars of the ISR Framework

METRIC PILLARS

INPUTS

East Asia & Pacific records the strongest regional average (56.4), driven by industry funding per staff. Among individual countries and territories, Hong Kong leads (86.5), ahead of Australia, China, Taiwan and South Korea. South Asia, by contrast, commits the highest share of its research funding to interdisciplinary work but attracts less industry funding, so its overall Input score is lower.

PROCESS

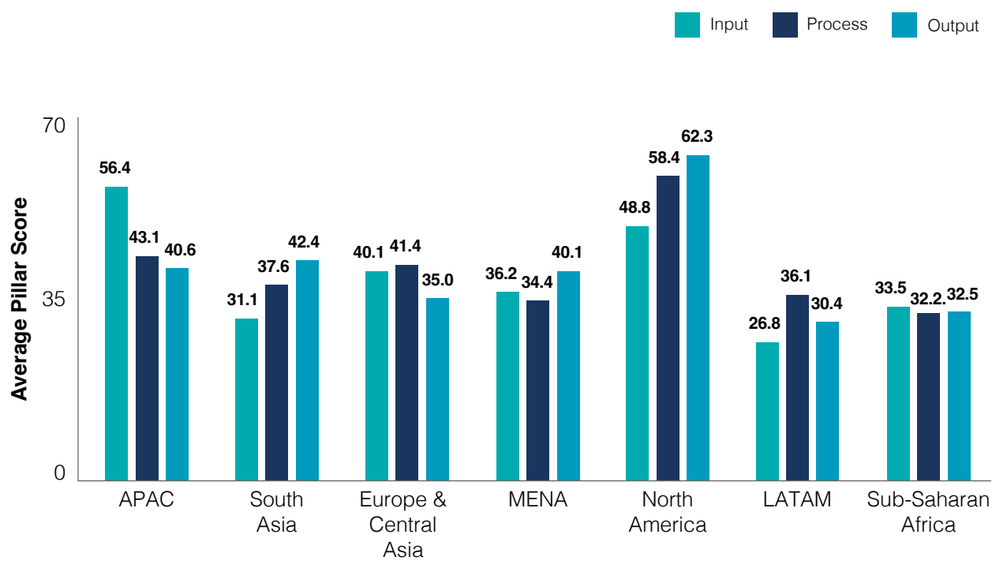
North America records the strongest regional average (58.4). Across every region the same internal pattern holds: dedicated facilities are the strongest element, and the tenure and career promotion system measure is the weakest.

OUTPUTS

North America records the strongest regional average (62.3), built on research quality and reputation. The reach measures tell a different story. Latin America & the Caribbean has the highest proportion of interdisciplinary science publications, and Sub-Saharan Africa the highest cross-disciplinary utility, which suggests that the participating universities in those regions are inherently more interdisciplinary in the science research they publish, even where research quality and reputation scores are lower. Among countries and territories, Hong Kong posts the highest average for research quality.

No single system leads across the board:
different regions are strongest on different pillars.

Figure 5 Average Input, Process and Output Scores by Region

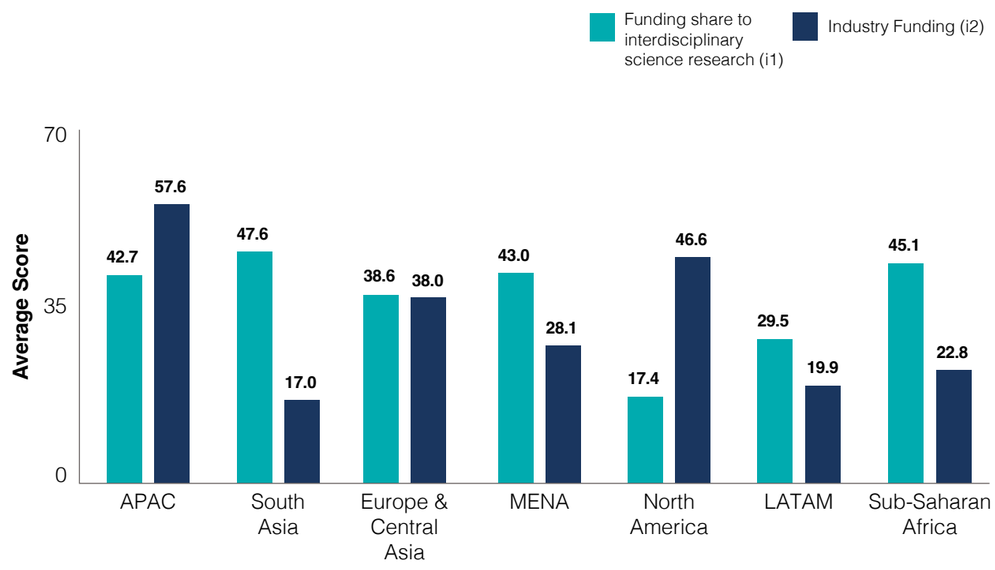


3.2 Across the Three Pillars

Inputs

The Input pillar combines two distinct measures: the proportion of STEM research funding dedicated to interdisciplinary science research (i1) and total STEM industry research income per academic staff member (i2). The latter reflects the broader STEM industry-research environment; the data do not establish that this income funds interdisciplinary science research. Regions tend to lead on one measure rather than both. East Asia & Pacific records the strongest overall performance (56.4), driven by industry research income per staff. South Asia, Sub-Saharan Africa, and the Middle East & North Africa commit a high share of their research funding to interdisciplinary science research but record far lower STEM industry research income per staff, which holds their overall scores down: South Asia has the highest i1 average (47.6) yet the second lowest overall Input scores (31.1). North America ranks second overall (48.8), strong on STEM industry research income per staff despite the lowest regional average on i1. Europe & Central Asia is the most balanced across the two measures, while Latin America & the Caribbean records the lowest overall Input score (26.8).

Figure 6 Inputs: Two Models of Investment, ISR 2027



Process

The Process pillar shows North America clearly ahead (58.4), but its most telling feature is a pattern shared by every region: of the four measures, dedicated facilities (p2) are consistently the strongest and recognition of interdisciplinary science research in tenure and promotion (p4) the weakest. Support for interdisciplinary science research is, in other words, more firmly built into universities' infrastructure and administration than into their academic career systems, which makes tenure and career promotion the clearest shared area for development. At the top end, two institutions, Carnegie Mellon University and Duke University, score a perfect 100 across all four measures.

Support is being built into buildings and administration faster than into academic careers.

Figure 7 **Process Pillar: Average score by region, ISR 2027**

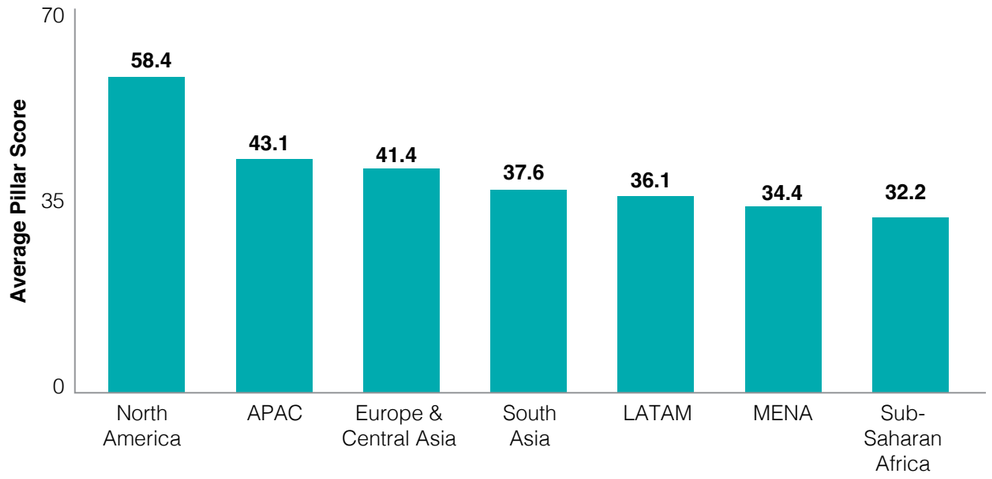
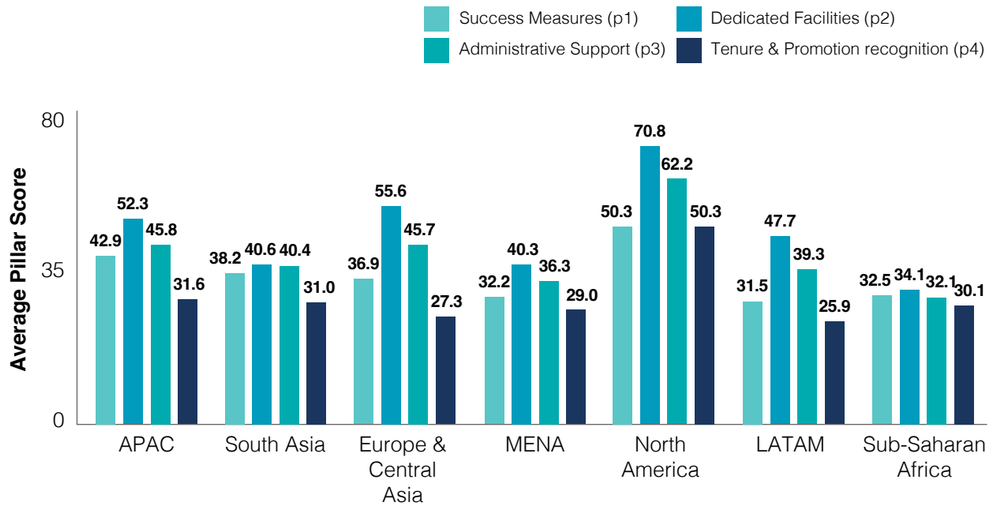


Figure 8 **Process: Four Measures by Region, ISR 2027**



Outputs

The Output pillar reveals differences across several dimensions. **Figure 9** focuses specifically on two of them: the proportion of interdisciplinary science research publications (o2) and research quality (o4). On these measures, North America records the highest regional average for research quality (72.4) but the lowest proportion of interdisciplinary science research publications (44.3).

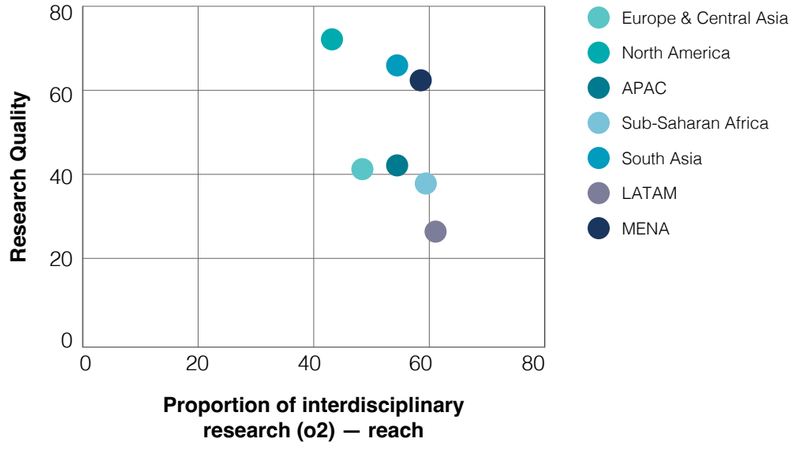
Latin America & the Caribbean shows the reverse pattern in **Figure 9:** it has the highest proportion of interdisciplinary science publications (61.7) but a lower research-quality score. Middle East & North Africa and South Asia also perform strongly on research quality, behind North America.

The other Output measures add further context but are not plotted in **Figure 9:** North America also records the highest reputation average (50.4), while Sub-Saharan Africa records the highest cross-disciplinary utility average (69.4).

Some regions stand out for the recognition their work earns, others for how much of their research is interdisciplinary in the first place.

Taken together, the Output measures show that regions are interdisciplinary in different senses, including the share, quality, reach, and reputation of their work.

Figure 9 **Regional output profile: level of interdisciplinarity (o2) versus research quality (o4), by ISR reporting region.**





SECTION 4
FROM MEASUREMENT TO STRATEGY

Beyond the formal ranking results, the ISR data collection also captures how institutions are responding to them, and it is that feedback data this section draws on. The framework serves two complementary functions.

As a benchmarking instrument, it lets institutions assess their interdisciplinary science performance against peers within and across regions on a common basis. As a strategy-development tool, its pillar structure helps them diagnose where their strengths and gaps sit across the science research cycle, and where intervention is most likely to make a difference.

Feedback provided during the ISR data collection confirms this dual use. Some 612 respondents reported introducing, strengthening, or formalizing support for interdisciplinary science since participating in ISR, treating the framework as a catalyst for change rather than a reporting exercise. The developments most often cited were:

- New cross-faculty collaboration mechanisms (404 responses)
- Shared infrastructure and interdisciplinary centers (299)
- Education and capacity-building initiatives (287)
- Dedicated funding and incentive schemes (273)

These four map closely onto what the pillars measure and onto the practices the case studies detail in **Section 6**, so the feedback reads as an early signal of the same responses seen there in depth. What institutions prioritize varies by region, which **Section 5** takes up in full.

Institutions also describe ISR as a tool for self-assessment rather than only external comparison, valuing the chance to locate gaps and set targets against global practice (see box). Comparison provides an external reference point; the framework turns it into identifiable areas for action, whether through governance, funding incentives, shared infrastructure, or cross-faculty collaboration. In this sense ISR increasingly functions not only as a measure of interdisciplinary science performance but as a framework through which institutions structure and accelerate their own development.

ISR increasingly functions not just as a measure of interdisciplinary science performance but as a framework institutions use to structure their own development.

In their own words: ISR as a self-assessment tool

Malaysia. A public university reports that participation helped it “identify gaps in research collaboration, infrastructure, and performance tracking” and align its strategy with international standards.

Uzbekistan. A university calls for peer benchmarking that would let it “understand our relative position and set improvement targets.”

Nigeria. An emerging research institution finds the framework particularly useful for “benchmarking emerging research institutions.”

Tunisia. A university says ISR helps it “highlight strengths, identify gaps, and align strategies with international best practices.”

SECTION 5
COMMON PRIORITIES, DIFFERENT CONDITIONS



THE SHAPE OF INTERDISCIPLINARY SCIENCE

SECTION 5

Read across regions, the findings show a set of shared priorities and a set of shared challenges that are experienced very differently in degree and character, shaped by local academic structures, funding systems, and stage of institutional development. This section sets out those differences and, critically, what lies behind them, drawing on the GHEIN regional chapters and on interviews with institutions across the network.

Shared priorities.

Two recur consistently across the GHEIN regional chapters: international and cross-institutional participation, reflecting a common desire to connect and collaborate across institutions and borders; and real societal impact in high-impact areas, reflecting a clear consensus that interdisciplinary research should solve real problems in fields such as AI, health, climate, energy, and sustainability, rather than pursuing interdisciplinarity for its own sake.

Shared challenges.

Every region reports barriers related to disciplinary mindsets, promotion and recognition, funding, and the capacity to undertake interdisciplinary research. However, the severity and form of these barriers vary with each region's funding system, institutional structures, and stage of research development.

5.1 Seven Regions, Different Conditions

Regional terminology.

Quantitative analysis in this paper uses the seven ISR reporting regions: East Asia & Pacific; Europe & Central Asia; Latin America & the Caribbean; Middle East & North Africa; North America; South Asia; and Sub-Saharan Africa. Where GHEIN chapter discussions use different regional groupings or names, these are identified as GHEIN chapter terms rather than ISR reporting categories.

Section 3 measured where interdisciplinary science research stands; this section reads those results through the regions that produced them. Drawing on the GHEIN regional chapter discussions and interviews



across the network, it sets the shared constraints against the distinct challenges each region faces, and shows what institutions are doing to overcome them.

North America

In the ISR 2027 results, the ranked universities in North America lead the regions on the overall score and on the Process and Output pillar averages. North America also records the highest averages for research quality and reputation. Its weakest Output measure is the proportion of science research that is interdisciplinary, so the region's strength rests less on how much of its science output crosses fields than on the quality and standing of the work that does.

These universities, predominantly in the United States alongside Canadian members, form a comparatively mature and well-networked ecosystem, with relatively developed integration between universities and industry, and they work from more established interdisciplinary structures than most other regions. The questions that occupy them have shifted accordingly: less about making the case for interdisciplinary research than about how it is recognized in careers and how its longer-term impact is judged, with the relative volatility of federal research funding a shared pressure underneath.

The common model is a university-wide institute or laboratory that sits outside departments while faculty keep a departmental tenure home. Georgia Institute of Technology organizes eleven such institutes around durable grand challenges; Massachusetts Institute of Technology runs more than two dozen interdepartmental laboratories alongside presidential initiatives in fields such as generative AI and quantum; and Northwestern University administers around 25 centrally funded institutes and centers. All three approaches are examined in full as case studies in the next section. The model runs deep elsewhere too: Duke University pairs its institutes with seed grants that report external returns many times their cost and is turning to endowed interdisciplinary chairs to steady joint appointments, while Purdue University built interdisciplinary centers into its budget and governance more than two decades ago.

Institutional design, more than individual drive, carries interdisciplinary research; progress requires reforming how external funding and assessment treat cross-field work.

Europe & Central Asia

In the ISR 2027 results, Europe & Central Asia scores relatively evenly across the Input and Process pillars but less strongly on Outputs. That profile fits a region where the structures supporting interdisciplinary research are comparatively well developed, and where the open questions are less about proving the value of the work than about removing what holds back its results: disciplinary funding routes, long-standing disciplinary divisions, and assessment systems that reward staying within a single field.

The regional response is largely structural. Rather than leave collaboration to individual initiative, many universities build standing arrangements that give it a permanent home, organized around shared problems rather than departments. The University of Aberdeen clusters its research into a small number of challenge areas in fields such as health, biodiversity, and AI, each with its own leadership, administrative support, and dedicated fellows. The University of Konstanz organizes work around objective-centered profile areas and shared research centers, and through its Zukunftskolleg brings early-career researchers from different fields together for several years to build common ground. Others lead through culture and strategy: the Technical University of Munich funds bottom-up cross-school networks and places industry partners such as Siemens and SAP alongside its researchers, rewarding collaboration in promotion; Politecnico di Milano pairs top-down strategy with researcher initiative, hiring humanities and social scientists into its engineering and design departments and building joint laboratories with industry.

These structures work against real barriers. External funding is harder to navigate than internal schemes, because review panels organized by discipline are not always equipped to weigh proposals that cross them, and in the United Kingdom the discipline-based Research Excellence Framework can discourage work that does not fit a single unit of assessment. This tracks the pillar results: the tenure and career promotion system measure is the weakest Process measure in every region, and Europe & Central Asia's lower Output scores are consistent with assessment systems not built for cross-field work.

The pattern points to one conclusion: what carries interdisciplinary research is how institutions are set up more than individual drive, and further progress will depend on reform beyond the university, in how funding and assessment treat work that spans fields.

East Asia & Pacific

East Asia & Pacific spans higher- and lower-income systems, with ISR 2027 results concentrated toward the stronger end of the global picture. The region records the highest regional Input average, with Singapore and Hong Kong prominent at the top of the table: the National University of Singapore places second, Nanyang Technological University, Singapore and the University



of Hong Kong joint seventh, and Hong Kong records among countries and territories with at least five ranked universities.

The region's distinguishing feature is how centrally interdisciplinary research is supported, through external and government funding as well as institutional initiative. Hong Kong's Areas of Excellence and Theme-Based Research schemes direct large awards to government-identified problems, and City University of Hong Kong aligns its seven horizontal, cross-college institutes with national five-year-plan themes; it is examined in full as a case study in the next section. Singapore's National Research Foundation favors interdisciplinary teams in competitive calls and backs corporate laboratories with matching funds, while Nanyang Technological University, Singapore assigns central faculty positions to schools proposing strong cross-cutting initiatives.

Australia differs: national funders view interdisciplinary work favorably but do not require it, so the push comes from institutions. RMIT University supplies it through a graduated funding pipeline within its long-standing Enabling Impact Platforms, and is examined in full as a case study in the next section. Deakin University offers a clear illustration of the same logic. It released funding to its four faculties on the condition that the money be spent on work crossing faculty boundaries, and applied the same test to scholarships and fellowships, so that the funding itself carries the incentive to collaborate. It also holds a set of cross-faculty initiatives centrally rather than within faculties, currently including an Institute for Applied Artificial Intelligence and a new humanitarian research program that draw staff from across the university, and partners with industry and government on large-scale translational work such as a major recycling and clean-energy initiative.

When funders reward interdisciplinary research directly, researchers face fewer obstacles. One barrier remains: interdisciplinary researchers take longer to build a conventional track record, which echoes the ISR finding that the tenure and career promotion system measure is the weakest Process measure in every region.

South Asia

South Asia shows a different profile. It records the highest regional average for the share of research funding directed to interdisciplinary work and is comparatively output-led, strong on research quality but weaker on industry funding. Institutional responses frequently emphasize dedicated grants, incentives, and requirements for cross-departmental participation.

Manipal Academy of Higher Education, in India, illustrates the pattern. It organizes research into verticals within each of its institutes and links each vertical to its counterparts elsewhere, so a team in the medical school works alongside its equivalent in technology, supported by an intramural fund for seed grants, inter-institute grants, and doctoral scholarships. Its commercialization model is distinctive: the university keeps only a small equity share in spin-outs, leaving most of the value with the researchers, and covers patent costs centrally. Interdisciplinary work is concentrated in AI and health, including prediction models for coronary disease and AI cancer screening for low-resource settings, and institutes are reviewed quarterly on translation into guidelines, practice, and policy as well as on publications.

Middle East & North Africa

In the ISR 2027 results, the ranked universities from Middle East & North Africa stand out on research quality, the third-highest regional average after North America and South Asia. The regional priorities are capacity-building and funding, and recognition of interdisciplinary work reads as an emerging question. That timing matters: research capacity across the region is expanding quickly, often under state direction, so recognition systems are still being designed rather than retrofitted.

Across the region, direction tends to come from the center, whether from the institution or the state, and it takes several forms. One approach builds capability in stages: King Saud University, in Saudi Arabia, develops interdisciplinarity step by step and anchors it to national research priorities such as water scarcity. It is examined in full as a case study in the next section.

Embedding interdisciplinary work in careers and reward systems is under way but uneven.

A second approach works through academic incentives. An-Najah National University, the largest university in the Palestinian territories, has built interdisciplinarity into its reward system, requiring both within-field and cross-disciplinary publications for tenure and promotion, a direct answer to the metric on which the sector scores weakest, supported by research prizes across several fields and university-funded central laboratories.

A third works through state direction and shared infrastructure. Delta University for Science and Technology, in Egypt, reflects a nationally coordinated approach: ministry-led interdisciplinary training, a national interdisciplinary network established by decree, and a formal framework that scores the interdisciplinary integration of a proposal before it is funded, alongside a shared integrated-laboratories facility that brings researchers from different faculties into the same space.

The open question the region identifies for itself is recognition. Embedding interdisciplinary work in careers and reward systems is under way but uneven, and both An-Najah National University and Delta University for Science and Technology describe it as a work in progress, with cultural and generational change still to come.



Latin America & the Caribbean

In the ISR 2027 results, Latin America & the Caribbean records the highest average among all regions for the proportion of research that is interdisciplinary and performs relatively well on cross-disciplinary utility, though it scores lower on research quality and reputation and records the lowest regional Input average. The pattern describes a region whose interdisciplinarity shows more in the reach of its work than in the resources behind it. Funding is the central constraint: where funders work within tightly defined thematic niches and institutions have limited say over how money is allocated, assembling teams across fields is difficult regardless of appetite.

The regional approach tends to be challenge-led. Rather than pursuing disciplinary integration for its own sake, institutions more often begin from a societal problem, in areas such as sustainability, climate resilience, and health, and draw in the fields needed to address it, which keeps interdisciplinary work tied to regional priorities and eases institutional buy-in. The stronger examples pair that orientation with structures that sit beyond individual faculties.

The University of São Paulo builds cross-cutting centers, such as its carbon research center, that combine research, innovation, and public dissemination around a shared mission and report centrally rather than to a single unit. It turns a modest internal investment into external funding many times its scale. A case study of this university is explored in greater detail in a later section.

Other models emphasize continuity: Federal University of Viçosa treats postgraduate education, its doctoral networks and scholarship structures, as interdisciplinary infrastructure, building relationships more durable than short-term project funding. Tecnológico de Monterrey, in Mexico, organizes mission institutes such as its Institute for the Future of Education that connect research to implementation and knowledge transfer.

Taken together, these cases suggest that interdisciplinary research holds where three functions align, academic research, external partnership, and knowledge transfer,

and that the region's binding constraint remains the funding structures around them.

Sub-Saharan Africa

In the ISR 2027 results, the ranked universities in Sub-Saharan Africa lead the regions on cross-disciplinary utility and record broadly similar scores across all three pillars, a more even profile than most. The regional emphasis falls on solving problems specific to the region, from health to food security to environmental resilience, and on doing so collaboratively, through industry-university linkage and partnership between institutions across the region.

Commercialization runs alongside this, moving from publications to products, and follows from the funding position: where research money is precarious and often sourced externally, work that addresses local needs and demonstrates application is both the case for investment and a route to sustaining it.

Institutions approach this from two directions. Covenant University, in Nigeria, works through incentive design, conditioning seed grants, publication support, and conference funding on interdisciplinary co-authorship, and pairs shared central instrumentation with a product-oriented focus, such as an antidiabetic compound derived from local plants and moving toward a marketable form. Its funding is drawn substantially from philanthropy and a World Bank African Center of Excellence that also draws students from across the region.

Stellenbosch University, in South Africa, works through standing structures. Under a "Research for Impact" goal, it has created two interdisciplinary schools alongside its faculties, for data science and for climate studies, beneath which sit some 80 cross-boundary centers and twelve problem-focused spaces that bring non-academic stakeholders into research design. Its work targets problems the region feels directly, from tuberculosis and biodiversity to informal-settlement fire safety and post-apartheid reconciliation. The recurring constraint is sustainability: with domestic research investment low, much funding is international, which the university works to align with local priorities.

What connects these approaches is a focus on locally defined priorities pursued on precarious, largely externally sourced budgets, with research funding and the public communication of research the region's most pressing concerns.

5.2 Shared Ambitions, Different Conditions

Across the regions, the priorities are broadly shared, international collaboration and research aimed at real societal problems, but the conditions are not. In East Asia & Pacific, government funding tends to incentivize interdisciplinary research; institutions in Latin America & the Caribbean and Sub-Saharan Africa pursue it on precarious, largely external budgets; universities in Europe & Central Asia have the structures in place but are held back by external funding routes and assessment systems built around single disciplines, while for North American institutions a concern is the relative volatility of federal funding.

The ambitions are broadly shared; the conditions are not.



SECTION 6
CASE STUDIES: HOW IT'S BUILT

The case studies that follow examine a number of institutions with well-developed interdisciplinary research, each read as a whole, so that the way an institution's funding, structures, and pathways to impact fit together stays visible.

Across these institutions, one common thread stands out: each sets up a horizontal unit, such as an institute, center, platform, school, or cluster, that sits across departments and is directed at chosen research priorities, in most cases while researchers keep a home in their discipline. Its form varies, from Georgia Tech's co-located research neighborhoods to City University of Hong Kong's institutes without dedicated facilities.

How do institutions create the conditions for interdisciplinary research to take root and endure? The case studies that follow explore this question through different combinations of funding, structures, support, and incentives. They examine how strong disciplinary homes connect with cross-cutting structures, how seed or core funding gives collaboration time to develop, and how administrative or professional support helps teams move from shared ideas to external funding and impact. The approaches vary: some are centrally directed and aligned to national priorities, while others grow from researcher initiative; some rely on permanent institutional platforms, while others use time-limited structures expected to adapt or close. Rather than presenting a single institutional blueprint, the cases offer different ways of connecting people, resources, incentives, and pathways to impact so that interdisciplinary work can endure beyond a single project or individual champion.

However different their settings, these institutions return to a similar model: a horizontal unit cuts across departments while researchers keep a home in their discipline.

THE SHAPE OF INTERDISCIPLINARY SCIENCE
SECTION 6

Case Study

Massachusetts Institute of Technology (North America) — Agility as a Design Principle

Massachusetts Institute of Technology

QUICK IMPACT STATS

Exemplar output: Commonwealth Fusion Systems spin-out from the Plasma Science and Fusion Center

More than **two dozen interdepartmental laboratories** and centers

16 percent of FY2026 faculty hires with appointments in multiple departments

"If we can keep adopting structures that don't freeze in place but keep evolving, that's where the best work happens."

Prof. Ian A. Waitz, Vice President for Research, MIT

Rank #1
in the Interdisciplinary Science Rankings 2027

MIT's distinctive strength lies less in any fixed interdisciplinary structure than in keeping its structures flexible enough to evolve. The emphasis falls on people: hiring exceptional researchers, building an intellectually rich environment, and allowing the institution to re-form around whatever problem is moving fastest. Interdisciplinarity is sustained less by imposed architecture than by the freedom of talented people to find one another.

Inputs

Around 40 percent of MIT's sponsored research funding comes from non-federal sources such as industry and foundations, giving it a substantial base beyond federal funding. In addition, MIT matches all sponsored funding on campus approximately one-to-one with its own resources in ways that support flexibility, such as faculty, graduate student, and postdoc support, and start-up and seed funds for new initiatives. Six recently formed presidential initiatives in areas such as generative AI, life and health sciences, quantum, and manufacturing are backed by internal seed funding and are attracting substantial external funding, including philanthropic support, as they develop. These initiatives are largely driven by the research community's enthusiasm, then backed by the administration.

Process

Beyond its schools and departments, MIT has established more than two dozen interdepartmental laboratories and centers that foster cross-cutting research. Faculty, principal investigators, and graduate students can hold appointments across one or more departments and labs at once, with 16 percent of new faculty hires in FY2026 having appointments in multiple departments. Promotion review deliberately draws in reviewers from outside the home department, increasingly so at senior stages, and promotion cases are reviewed by the academic appointments subgroup, which includes the president, provost, deans, and the VP for research among others. Deans' offices actively shepherd dual-faculty searches and establish cross-departmental mentoring committees for junior faculty.

Outputs and Societal Impact

The interdepartmental model produces significant spin-outs: research at the Plasma Science and Fusion Center gave rise to Commonwealth Fusion Systems (now also a research sponsor), a Massachusetts-based company that has attracted $4 billion in investment to pursue grid-scale fusion energy. But the broadest societal return is both economic and cumulative. MIT produces a steady flow of new ventures each year from students, faculty, staff, and alumni, founders who often move from field to field in pursuit of different problems, and whose flexibility lets them tackle successive challenges over a career.

Case Study

City University of Hong Kong (East Asia & -Pacific) — Horizontal Structures in a Vertical System

香港城市大學
City University of Hong Kong

“What makes the difference is the horizontal institute. It breaks the barriers between disciplines.”

Dr Kenneth Mei Yee Leung, Interim Vice President (Research), City University of Hong Kong

Rank #16
in the Interdisciplinary Science Rankings 2027

Universities are built vertically: colleges, then departments, then disciplines. City University of Hong Kong has kept that structure and laid a second one across it. Seven research institutes operate horizontally, drawing membership from anywhere in the university through open calls, on the premise that disciplinary silos are a structural condition best addressed structurally. Five priority areas frame the work, One Health, digital society, smart cities, materials science, and brain and consciousness research, each aligned to national strategic emphases under China’s current five-year plan.

Inputs

Each institute receives annual seed funding ring-fenced by the university. The sums are deliberately modest; their purpose is to generate the preliminary data teams need to bid for larger external awards. Hong Kong’s two principal basic-research schemes, Areas of Excellence and Theme-Based Research, directed at government-identified problems, each award up to HK$100 million, and the university led the territory this year with three awards and the largest total funding. Industry funding enters through a matching model in which translational projects require an industry partner, with government contributing the balance and venture capital joining at later stages.

Process

Support for the institutes is administrative rather than physical. Each has a director and dedicated staff, giving cross-disciplinary teams an operational spine without a building attached. That absence is deliberate: the five priority areas are framed as concepts rather than structures, on the reasoning that a mid-sized university cannot house each one physically and that fixed facilities would fix membership along with them. Keeping the areas conceptual keeps participation fluid, so researchers join wherever the problem takes them.

Outputs and Societal Impact

The model produces collaborations that could not have been planned: a biodiversity researcher isolating environmental DNA from seawater worked four years with a materials scientist to build a membrane for the purpose, raising sensitivity by 40 percent. The university ranks first in Hong Kong and in the global top 50 for U.S. patents held; five years ago it committed HK$600 million to commercialization, offering founders an automatic HK$100,000 with business support and up to HK$1 million after a successful pitch. A target of 300 startups has been passed more than threefold, with over 220 seed-funded and ten preparing for IPO.
One notable output is an affordable portable gut-health scanner, using AI for diagnosis, with social scientists guiding deployment into lower-income districts.

QUICK IMPACT STATS

7 horizontal research institutes cutting across the college structure

HK$600m committed to commercialization; **~900 startups** founded

3 major competitive awards this year, the most of any Hong Kong university

Exemplar outputs: eDNA capture membrane (+40% sensitivity); portable AI health scanner

Case Study

Georgia Institute of Technology (North America) — Interdisciplinarity Built In

“Our support for interdisciplinarity is decades in the making. As a public university, our responsibility is to see it serve our community and beyond.”

Prof. Julia Kubanek, Vice President for Interdisciplinary Research, Georgia Tech

Rank #11
in the Interdisciplinary Science Rankings 2027

Georgia Tech’s strength is integration built up over decades. Interdisciplinarity is not bolted onto a disciplinary structure but woven through promotion, buildings, degree programs, funding, and commercialization at once, so that the parts reinforce rather than merely coexist. Its sharpest single feature is a network of interdisciplinary research institutes (IRIs) that cut across the disciplines represented by academic programs and departments and focus on societal impact.

Inputs

As a public university, Georgia Tech gives its eleven Interdisciplinary Research Institutes (IRIs) a recurring, university-funded base budget. More than 85 percent of research funding is federal, from agencies such as the NSF, NIH, DOD, and DOE. Philanthropy plays an increasing role, particularly in seeding new interdisciplinary initiatives.

QUICK IMPACT STATS

11 Interdisciplinary Research Institutes on a 10-to-20-year horizon

#1 in the U.S. for student startups; **300+ corporate partners** (55 major agreements)

Exemplar output: neonatal pressure-ulcer sensing with Children’s Healthcare of Atlanta

Process

Interdisciplinary faculty on joint appointments are evaluated through a single integrated promotion process rather than by multiple parallel committees, avoiding the doubled risk of failure such faculty face elsewhere. Research buildings are organized into thematic “neighborhoods,” so that faculty working on a shared area such as environmental science or biomedical research are physically co-located, their labs side by side. Interdisciplinary degree programs in fields such as neuroscience, analytics, and bioengineering span multiple departments and sometimes colleges. The eleven IRIs are organized around durable grand challenges such as robotics, energy, and manufacturing, on a 10-to-20-year horizon, while faculty keep a departmental tenure home. This rests on clear success metrics: each IRI is measured annually across five areas, with a deeper review every five years determining whether to continue, change, or sunset it.

Outputs and Societal Impact

Georgia Tech produces a very large number of student startups, with faculty commercialization growing, and more than 300 corporate partners, 55 under master research agreements. Shared world-class facilities, such as a micro-nanofabrication cleanroom and the Advanced Manufacturing Pilot Facility, serve industry and academic partners and provide workforce training alongside academic research. One example with real-world impact is a joint Pediatric Technology Center with Children’s Healthcare of Atlanta, which is piloting bed-linen sensors to predict and prevent pressure ulcers before they cause pain and complications.

Underpinning this is a regional responsibility the university ties to its status as a public institution with an explicit goal of helping Atlanta and the southeastern U.S. become a leading technology hub, pairing interdisciplinary research strength with commercialization capacity through partnerships with government, industry, and local communities.

Case Study

King Saud University (Middle East & North Africa) — Building Interdisciplinarity as a Sequenced Pipeline

“We began with the programs. Only once those were running on their own did we turn to research, and then to building the culture among students.”

Prof. Abir Alharbi, Deputy to Vice President of Planning & Development, King Saud University

Rank #31
in the Interdisciplinary Science Rankings 2027

King Saud University’s distinctive strength is sequence. Rather than standing up structures and hoping culture would follow, it built interdisciplinarity in deliberate stages, programs first, then research, then student culture, so that each layer created demand for the next. The work is anchored throughout to nationally declared research priorities that are interdisciplinary by necessity.

Inputs

Central research funding is directed toward the national priorities that shape King Saud University’s interdisciplinary agenda, supporting cross-college teams assembled around challenges such as water scarcity and sandstorms that no single discipline can address. Industry offers a further potential channel for funding, with active collaborations in colleges such as pharmacy and applied medicine.

Process

The shift began with a university-level mandate that colleges propose programs with partners outside their own college, encouraged from the top rather than left to individual initiative. It started at master’s level, where a cross-field degree (Sustainability Science, spanning science, engineering, and agriculture) was easiest to justify, then let demonstrated success pull an undergraduate version and further programs such as bioinformatics into being. Interdisciplinary programs are deliberately housed outside any single college, giving them visible independence.

To shift research behavior, the university weighted its internal support toward interdisciplinary papers, a deliberate incentive to move researchers out of single-field comfort zones. This is reinforced by the Ra’id program, which backs researchers within three years of their PhD with help assembling cross-field teams and protected time away from teaching load. Many are early-career staff trained abroad in multi-field teams and keen to rebuild that model at King Saud University. Cross-college student clubs, including a popular Vision club, build the habit of interdisciplinary work early.

QUICK IMPACT STATS

- **University-level mandate** for cross-college programs
- **Research anchored to national priorities** (water scarcity, sandstorms)
- **Ra’id scheme:** protected time and team support for early-career researchers
- **Exemplar output:** Nestlé MOU across nutrition, biochemistry, and humanities

Outputs and Societal Impact

Impact is routed through national priorities and industry partnership. Research aligns to declared national challenges, such as water scarcity and sandstorms, that cannot be addressed from any single discipline, drawing together geology, chemistry, engineering, science, and agriculture. Industry collaborations are extensive and often industry-initiated: a pharmacology center analyzing dangerous drug and plant combinations, which grew from an industry approach; an applied-medicine eye-health program taking optical science into schools alongside commercial eyewear partners; and a Nestlé partnership, formalized in an MOU, that brought together nutrition, biochemistry, and, once public awareness became part of the work, the humanities.

Case Study

Northwestern University (North America) — Interdisciplinarity as Culture

Northwestern University

“Northwestern’s success in interdisciplinarity rests on embedding it into every layer, from undergraduate admissions through to the largest research institutes.”

Prof. Sumit Dhar, Associate Provost for Research, Northwestern University

Rank #12
in the Interdisciplinary Science Rankings 2027

Northwestern’s defining strength is cultural as well as structural. Interdisciplinarity runs on long-standing expectation rather than engineered incentive, so much so that a traditional promotion system, which might obstruct cross-field work elsewhere, causes no friction because collaboration is simply assumed and counts as credit.

Inputs

Northwestern has around 25 University Research Institutes and Centers (URICs), supported and administered centrally, sitting outside any department or school, and many go on to sustain themselves through extramural funds. Joint degrees offered through collaboration between schools are backed by the university, while research is supported through seed funding on the expectation that faculty will secure external grants over time, with philanthropy contributing where a donor finds the work compelling. Most institutes form organically, when two or three faculty find a societally relevant reason to collaborate; the recent Thriving Planet Institute is one example.

QUICK IMPACT STATS

~25 centrally supported University Research Institutes and Centers

Interdisciplinary ethos embedded from undergraduate admissions upward

Traditional promotion structure sustained by collaborative culture

Exemplar outputs: wireless neonatal sensors; CORNERS gun-violence program

Process

Promotion and tenure remain deliberately traditional: a 50-50 appointment is still assigned a single tenure home, with the second department providing input. This works precisely because the collaborative culture is long-standing, and interdisciplinary contribution is treated as credit for sustaining that culture rather than as a distraction. Departments themselves have become more interdisciplinary over time; psychology, for instance, spans neuroscientists and organizational-behavior researchers who must learn to evaluate one another’s work. Interdisciplinary PhD programs, such as the university-wide neuroscience program spanning medical and undergraduate campuses, provide a natural pipeline, reinforced by a student body that gravitates to unusual combinations.

Outputs and Societal Impact

Northwestern’s commercialization runs through INVO (its Innovations and Ventures Organization), which provides incubator space and connects maturing startups to investment, alongside a student venture environment known as the Garage. Several examples illustrate the societal impact of its interdisciplinary research, reaching well beyond biomedicine. A collaboration between John Rogers and Amy Paller has developed wireless sensors that eliminate the jumble of wires connecting babies in NICUs to monitors, which is better for the baby’s fragile skin and also allows skin-to-skin contact with a parent. In a different field entirely, the Center for Neighborhood Engaged Research and Science (CORNERS) works hand-in-hand with community and civic partners to collect and analyze practically meaningful data on complex networks of residents and institutions; its work has been credited with reducing gun violence in several communities.

Case Study

RMIT University (East Asia & Pacific) — From Capability to Impact

“Lasting impact demands institutional commitment to sustained systemic change.”

Prof. Anne-Laure Mention, Global Business Innovation Enabling Impact Platform Director, RMIT University

Rank #40
in the Interdisciplinary Science Rankings 2027

RMIT’s defining strength is a durable platform structure that carries interdisciplinary research from collaboration through to impact. Eight Enabling Impact Platforms sit across the university’s colleges and schools, giving cross-disciplinary work a standing institutional home while researchers keep their disciplinary base. What began a decade ago as a mechanism to get people working together has since been reoriented toward translation and societal impact.

Inputs

The platforms operate within an increasingly integrated ecosystem of funding, capability and capacity development programs. Small catalytic seed grants, in the range of A$3,000 to A$5,000 through the Platform Activity Fund, help researchers start an impact-focused activity or accelerate a collaboration with an external partner. A larger translation scheme funds projects of around A$25,000 to A$50,000 to accelerate research uptake and commercialization. A translation fellowship scheme supports a small number of early- to mid-career researchers each year to concentrate on translation and impact, and a Vice-Chancellor’s Research Fellowship scheme recruits a cohort of postdoctoral and mid-career researchers for three to four years around topics that require interdisciplinary teams, such as regenerative futures and medical technology. Industry partners are defined broadly here, spanning companies, NGOs, and innovation offices.

Process

The eight Enabling Impact Platforms, spanning areas such as global business innovation, sustainable technologies, biomedical and health innovation, and social change, are the university’s principal vehicle for interdisciplinarity. Each draws affiliates from across the university at all levels of seniority, from PhD candidates and mid-career researchers to senior academics, as well as professional staff; one platform alone has some 500 affiliates. The program was renamed about five years ago from Enabling Capability Platforms to mark a shift from building collaboration toward generating impact, and it is run explicitly as a long-term change program: the first phase created the conditions for researchers to meet and find common ground on translation and impact. Dedicated professional staff train researchers in impact narratives and support them through large grant applications, which speaks to the administrative-support dimension of the Process pillar. Academic promotion has for several years included an impact component, requiring candidates to set out how their work has contributed to society beyond conventional metrics, which speaks to the recognition and career-progression dimension. Some 50 content-specific networks connect the internal community to external partners in areas such as healthy aging, ocean research and climate action, and mental health innovation.

Outputs and Societal Impact

The clearest results are collaborations that outlast the projects that seed them. The Eat, Move and Heal Network, established during the COVID-19 period to address long COVID, brought together researchers from the social sciences, diet and nutrition, and several areas of healthcare, along with physiotherapists, and has since sustained funding and produced a public podcast series. RMIT University’s reach extends beyond Australia through campuses in Vietnam and an RMIT Europe hub in Barcelona that has provided a route into EU research funding, a route that widens as Australia moves toward association with Horizon Europe. The limitation the institution identifies most directly is recognition: impact and translation work remains under-recognized and under-resourced relative to conventional academic output, and is named as the priority area for reform.

QUICK IMPACT STATS

Eight Enabling Impact Platforms spanning the university’s colleges and schools

Some 500 affiliates in a single platform, including researchers, PhD candidates, and professional staff

About 50 externally connected, content-specific networks

Impact component embedded in academic promotion

Exemplar output: Eat, Move and Heal Network (long COVID), sustained since 2021

Case Study

University of São Paulo (Latin America & the Caribbean) — Structure as Leverage

Universidade de São Paulo
Brasil

“The money the university put into the center represents less than two percent of what we’ve raised. But with this support we were able to organize as a research center and compete for millions of dollars in funding.”

Prof. Carlos Eduardo Cerri, Deputy Provost for Research, University of São Paulo

Rank #40
in the Interdisciplinary Science Rankings 2027

The University of São Paulo’s contribution demonstrates leverage: a modest institutional investment, paired with a horizontal center structure, unlocks external funding at many times its scale and channels it toward societal impact. Over five years the university has created ten research centers linked to the President’s Office, each tackling problems no single department can address. Reporting centrally gives each center independence from departmental structures while its researchers keep a disciplinary home. This study draws on one: the Center for Carbon Research in Tropical Agriculture (CCARBON), a Research, Innovation and Dissemination Center of the São Paulo Research Foundation, the state’s public research funder.

Inputs

Centers were established through a competitive internal call, with seed funding rather than sustained core budgets. For the carbon center, the seed remodeled a building and established administration. As a center, the group could then compete for a state research foundation grant many times larger, awarded in three phases running to 2034, and enter public and private partnerships across agribusiness and energy, from mangrove restoration to a national carbon baseline for the emerging carbon market. Institutional money is now under two percent of the center’s funding. The seed is not renewed; centers that fail to win external funding are expected to fold, and some of the ten are not expected to survive.

Process

The center model is above all an administrative-support mechanism. Reporting to the President’s Office reduces the friction of cross-unit work, and a management committee drawn from different units coordinates activity. Administrative load remains the principal constraint: large external agreements pass through several layers of internal and legal review taking four to five months, a timeline that sits uneasily with industry partners even where the safeguards are valued.

The centers also run shared multi-user laboratories, letting groups pool large equipment; as the university is public, these are open to outside users. A federal funding scheme reinforces this, prioritizing shared facilities over single-investigator equipment.

Outputs and Societal Impact

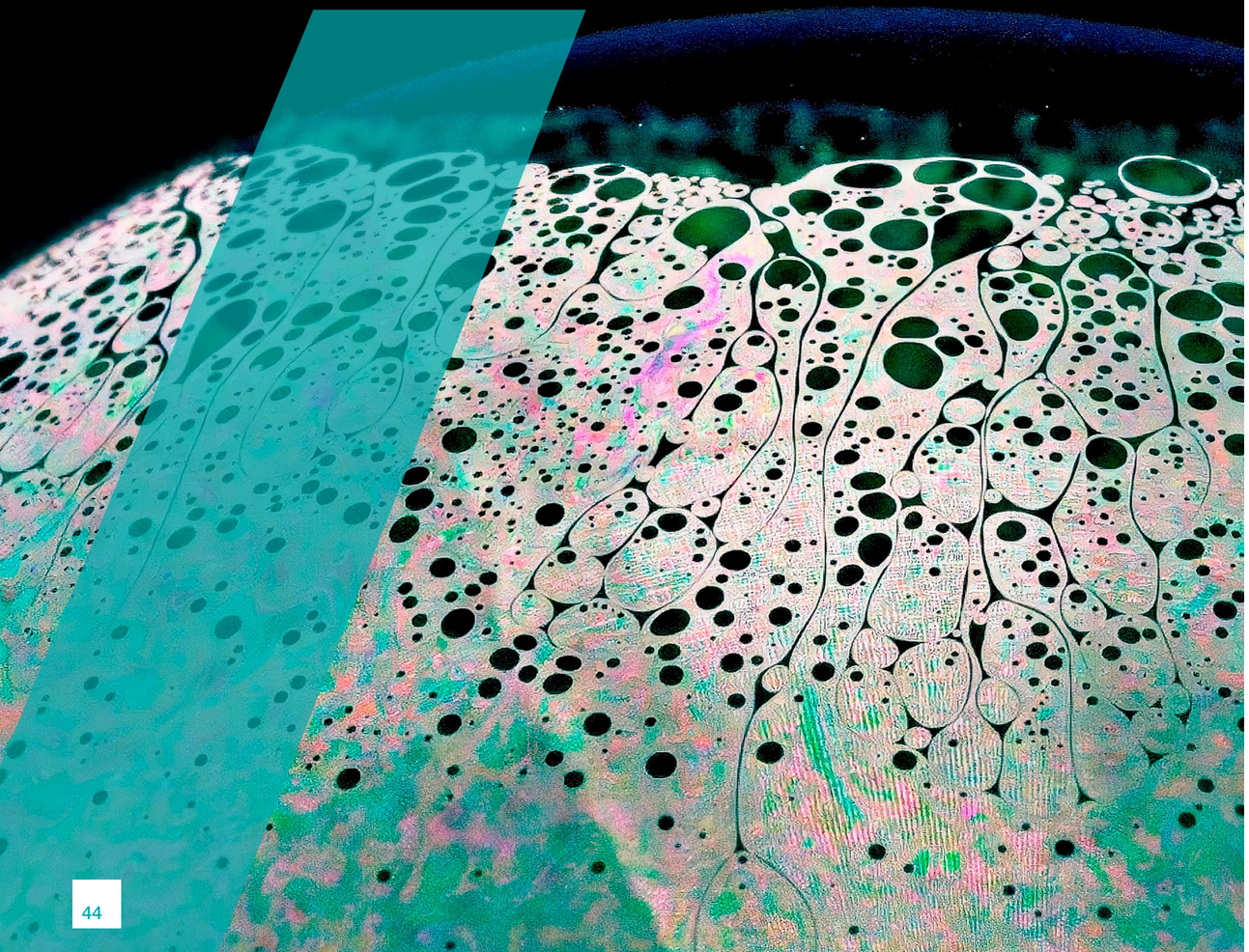
The center pairs research with innovation; its governance includes a non-academic board of industry, government and sector bodies that surfaces real-world problems to address. In two years it has published 61 scientific papers and partnered with some 25 research institutions in Brazil and abroad. Its patented soil-health kit, recognized by the UN Food and Agriculture Organization (FAO) as the first of its kind, has been applied on some 2,000 Brazilian farms, industry-funded and distributed free. A free cover-crop manual for farmers, first printed in 10,000 copies, now digital, is reportedly the university’s most downloaded material.

Dissemination is built in: its education program has brought 7,000–8,000 public-school children onto campus and trained roughly a thousand teachers, supported by explanatory podcasts, all free. The work also feeds into policy, through successive UN climate conferences and a substantial FAO and Intergovernmental Panel on Climate Change (IPCC) document on agricultural mitigation and adaptation, and its mangrove-restoration work has extended to Malaysia and Suriname.

QUICK IMPACT STATS

- **Ten cross-cutting research centers** linked to the President’s Office rather than to single faculties
- **Institutional seed funding** now under two percent of the total the center has raised
- **Shared multi-user laboratories**, open to external users
- **61 scientific papers** and some **25 research partners** within two years
- Exemplar output: patented, **FAO-recognized soil-health kit** applied on some 2,000 farms
- **Free cover-crop manual reported** as the university’s most downloaded material

SECTION 7
BUILDING ON THE DATA — THE ROLE OF GLOBAL HIGHER EDUCATION INTERDISCIPLINARY NETWORK



The Global Higher Education Interdisciplinary Network (GHEIN) is co-convened by Schmidt Science Fellows (SSF) and Times Higher Education (THE).

SSF works to break down barriers to interdisciplinary research, accelerate its societal impact and develop the next generation of science leaders. THE provides a broad view of the global higher education sector, alongside data that enables institutions to compare themselves across core research measures. Together, they created GHEIN to bring university research leaders together to strengthen interdisciplinary research in practice.

The network now includes 77 participating universities across six regions. Its regional discussions examine how institutions organize and support interdisciplinary research, with a particular focus on institutional best practice, the role of AI in interdisciplinary science, and international collaboration. These discussions create a forum for research leaders to compare approaches, understand how different regional and institutional contexts shape what is possible, and identify practices that may be adapted in their own institutions. The evidence and insights generated through the network can also be shared more widely through publications and policy briefs, providing other universities with examples of how interdisciplinary research can be supported.

What GHEIN uniquely offers is the combination of comparable global data from the ISR with candid, practitioner-level discussion of what lies behind the numbers. The regional discussions help interpret the current ISR findings by exploring why patterns may differ across regions and what institutional conditions help explain them. At the same time, the findings provide a common evidence base that helps identify the questions GHEIN should explore next.

First, tenure and career promotion systems. The ISR data point to a global challenge: many institutions lack a tenure or career promotion system that recognizes interdisciplinary science research. While research leaders do not necessarily set these formal policies, discussions within GHEIN can further surface how different institutions approach tenure and career promotion, and the network's outputs can capture alternative models and the evidence behind them. Leaders can draw on this evidence to inform conversations in their own institutions, without assuming that a single model will work across different systems.

Second, learning from institutional practice. The findings point to the value of combining disciplinary depth with structures that let researchers work across disciplinary boundaries. Institutions that have built institutes, centers, platforms or other horizontal structures offer examples the network can examine together. Through GHEIN, members can look not only at how these structures are funded, governed and connected to disciplinary departments, but also at how to sustain, review, adapt or responsibly close them over their life cycle, and which elements could transfer to their own institutions — a question that becomes particularly important when funding turns precarious, even in otherwise well-resourced systems.

Third, enabling interdisciplinary research in less-resourced regions. The data and regional discussions highlight the resource constraints faced by institutions in less-resourced research systems, including limited access to funding, infrastructure and research networks. Here, the question is not simply how institutions can attract more external resources, but how regional and international collaboration can help build research capacity while maintaining a focus on local and regional priorities.

This is particularly relevant to discussions about AI, where access to compute, infrastructure and specialized expertise can be uneven. GHEIN provides a space for institutions to examine what forms of shared infrastructure and regional collaboration might be possible, as well as the practical barriers that make such collaboration difficult. The next section looks more closely at the GHEIN regional discussions around how AI itself is beginning to reshape interdisciplinary science.

SECTION 8
AI IS CHANGING THE LANDSCAPE

AI is starting to reshape how interdisciplinary research gets done. AI tools can help researchers pick up the language and methods of an adjacent field faster, lowering some of the practical barriers to working across disciplines.

However, doing this well increasingly depends on shared compute, data infrastructure and technical expertise, which are unevenly distributed. It also raises the stakes on judgment: if AI handles more of the technical groundwork, disciplinary depth and the ability to tell a right answer from a plausible-sounding one become more valuable. As AI use spreads into more fields, questions of ethics and oversight increasingly cut across disciplines in ways no single field can manage alone.

Early discussions within GHEIN's regional chapters, feeding into a forthcoming GHEIN policy brief on AI, are already surfacing how this plays out differently by region - though at the time of writing, not all regions have yet held this discussion.

In GHEIN's Asia-Pacific chapter, AI is already embedded across governance, teaching and research at some institutions represented, though platform choices vary widely — a difference members see as an opportunity for shared learning rather than a problem. Discussion also pointed to a gap between AI literacy and AI capability, with interest in building "T-shaped" expertise: enough AI fluency for domain researchers, and enough disciplinary depth for AI specialists, to collaborate well.

In GHEIN's Latin America chapter, the discussion framed AI as a capacity multiplier, lowering practical barriers between disciplines by supporting coding, analysis, literature discovery and translation, with the clearest opportunity in challenge-led work on health, agriculture, water and energy. Members also flagged a widening gap between university and corporate computing access as a constraint on locally relevant research.

In North America, the tone was more cautious: AI is "not a universal bridge," and its usefulness varies markedly by discipline. A recurring concern was the "data paradox" facing genuinely new interdisciplinary fields, which often lack the data AI approaches depend on — and the risk that AI can lower the barrier to entering an unfamiliar field while making confident errors harder to spot.

These are early, region-specific conversations rather than settled conclusions, but one thread already stands out: institutions see AI's value as conditional on pairing it with structural change — incentives, training and infrastructure — rather than as a solution on its own. This is the kind of question GHEIN is positioned to keep exploring, and as the network's regional work continues, it may in time help inform how frameworks like ISR measure interdisciplinary capacity.

Discussion also pointed to a gap between AI literacy and AI capability, with interest in building "T-shaped" expertise: enough AI fluency for domain researchers, and enough disciplinary depth for AI specialists, to collaborate well.



SECTION 9
WHAT THE RESULTS ASK OF US

Read alongside the conversations convened through GHEIN, the 2027 results point beyond measurement to a set of practical implications.

Three themes run through the evidence:

- tenure and career promotion systems lag behind every other form of institutional support;
- durable cross-cutting structures, paired with strong disciplinary homes, are a common pattern among institutions that sustain interdisciplinary work; and
- the conditions for that work, from funding to AI infrastructure, are unevenly distributed.

Because the levers for change sit with different actors, the recommendations that follow are organized by audience: the universities that build and reward interdisciplinary research, the funders that resource it, and GHEIN and its convening partners, THE and SSF, which connect them.

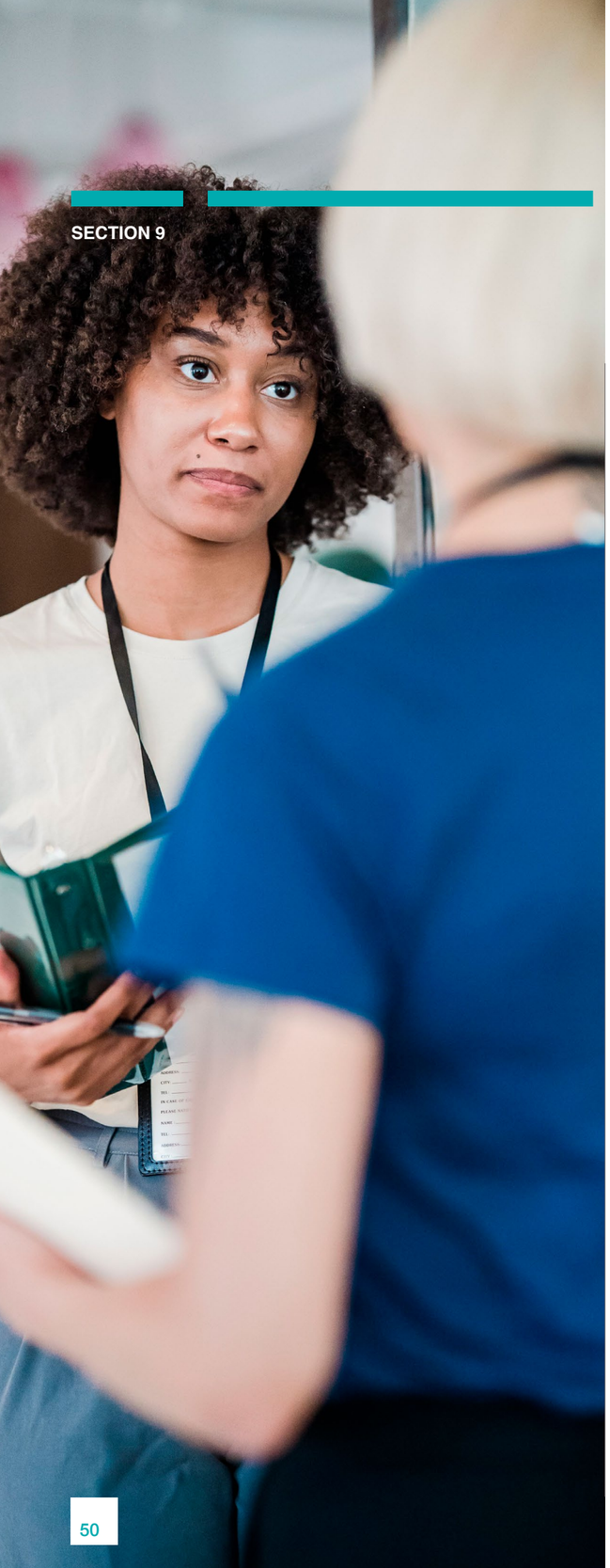
These recommendations should not be applied as a single global model. More mature and well-resourced research systems may need to focus primarily on incentives, assessment, career recognition, and long-term impact, while less-resourced or rapidly developing systems may first require sustained funding, durable structures, shared infrastructure, capacity building, and safeguards for locally determined priorities. The recommendations therefore set a common direction while allowing the route to implementation to reflect regional and institutional conditions, and each audience section closes with a note on how the emphasis may differ by region.

For universities

Universities hold most of the levers the Process pillar measures, and the gap between the support they have built and their tenure and career promotion systems is where the data points most clearly.

1. **Reform promotion criteria to recognize distinct interdisciplinary contributions.** The tenure and career promotion system measure is the weakest Process measure in every region, and closing that gap is the clearest priority for institutional reform. Criteria should give formal credit to team-based, translational, cross-field, and societally engaged contributions rather than judging them only against single-discipline norms, and joint appointments should be assessed through one integrated process rather than separate departmental reviews. The case studies offer workable models: a single integrated promotion process for joint appointments at Georgia Tech, reviewers drawn from outside the home department at MIT, a requirement for both within-field and cross-disciplinary publications at An-Najah National University, and an impact component in promotion at RMIT.

2. **Create durable cross-cutting structures without severing disciplinary homes.** A model that recurs across the institutions examined in this paper is a horizontal unit, whether an institute, center, platform, school, or cluster, directed at chosen problems and sitting across departments, while researchers keep a home in their discipline. Its form



varies, from co-located research neighborhoods to institutes run deliberately without dedicated facilities, and institutions should adapt it to their own scale and context rather than treat it as a proven template. Depth within a field remains the foundation interdisciplinary work draws on, so these structures should build across disciplines rather than replace them. External partners and the communities affected by the research should help shape their challenge-led priorities, as Stellenbosch University does by bringing non-academic stakeholders into research design.

3. **Provide seed funding, professional support, and sufficient time for teams to develop.** Collaboration across fields takes time to mature. Seed funding, as used at MIT, City University of Hong Kong, and the University of São Paulo, works best as start-up money that helps teams build common ground and compete for larger external awards. It is most effective alongside professional and administrative expertise, protected time, and mentoring, such as the cross-departmental mentoring committees MIT establishes for junior faculty, and with realistic expectations of how long new teams need before they show results.

4. **Build interdisciplinary pathways for postgraduate and early-career researchers.** Durable interdisciplinary capacity depends on people trained to work across fields from the start of their careers. The University of Konstanz brings early-career researchers from different fields together for several years through its Zukunftskolleg, and Federal University of Viçosa treats its doctoral networks and scholarships as interdisciplinary infrastructure, building relationships that outlast short-term project funding.

5. **Pool facilities, compute, and data resources.** Shared resources widen participation and reduce duplication, particularly where budgets are tight. Delta University for Science and Technology's integrated-laboratories facility and Covenant University's central instrumentation bring researchers from different faculties into the same space, and the same logic applies increasingly to the compute and data that AI-enabled research depends on.

6. **Evaluate structures periodically and adapt or responsibly close those that no longer add value.** Durability is not the same as permanence. Georgia Tech measures each of its institutes annually and conducts a deeper five-year review that determines whether to continue, change, or sunset it, while MIT keeps its structures flexible enough to reform around the problems moving fastest. Regular review keeps cross-cutting units accountable and frees resources for emerging priorities.

7. **Invest in leadership and team capabilities, not only facilities.** Dedicated facilities are the strongest Process measure in every region, which suggests support is being built into buildings faster than into people. Universities should invest as deliberately in the capabilities that make interdisciplinary teams work: leaders who can convene across fields and hold a shared agenda, and researchers able to collaborate across methods and vocabularies, including the "T-shaped" combination of AI fluency and disciplinary depth raised in GHEIN's Asia-Pacific chapter discussions.

Recognition in tenure and promotion is one of the clearest priorities for institutional reform

Regional emphasis

North American institutions may need to concentrate on career recognition, long-term impact, and resilience to the volatility of federal research funding; universities in Europe & Central Asia on overcoming discipline-based assessment; institutions in East Asia & Pacific and Middle East & North Africa on embedding durable career pathways as centrally supported research capacity expands; South Asian institutions on translation and industry links, where industry funding remains comparatively weak; and universities in Latin America & the Caribbean and Sub-Saharan Africa on sustaining challenge-led work around locally defined needs despite tighter and more externally dependent resources.



For funders

Funding systems shape what interdisciplinary research is possible long before institutional structures come into play, and several of the barriers institutions describe originate in how external funding is reviewed and awarded.

1. **Use review mechanisms capable of assessing cross-field proposals.** Review panels organized by discipline are not always equipped to weigh proposals that cross them. Funders can draw reviewers from several fields, convene dedicated interdisciplinary panels, and state clearly how integration itself will be assessed, so that proposals are not penalized for failing to fit a single discipline.

2. **Support early-stage team formation and disciplinary pivots.** Interdisciplinary researchers take longer to build a conventional track record, and new teams need resources before they have the preliminary results standard grants expect. Planning grants, team-formation awards, and fellowships that allow researchers to move into an adjacent field would lower the cost of starting cross-field work and widen the pool of people able to do it.

3. **Allow longer time horizons for integrated work.** Integrated research takes longer to establish common ground and demonstrate impact than work within a single field. Award durations, milestones, and renewal criteria should reflect this, in the way that Georgia Tech plans its institutes on a 10-to-20-year horizon at the institutional level.

4. **Extend funding beyond individual projects and recognize a wider range of outcomes.** Funding should also reach the shared infrastructure, professional support, and follow-on translation that allow interdisciplinary work to outlast a single grant. Assessment of results should recognize outcomes beyond publications, including policy influence, open resources, community benefit, commercialization, capacity building, and knowledge transfer, much as Manipal Academy of Higher Education reviews its institutes on translation into guidelines, practice, and policy.

5. **Protect locally determined priorities in international collaborations.** Institutions in South Asia, Sub-Saharan Africa, and Middle East & North Africa already commit a high share of their own research funding to interdisciplinary work. External funding should strengthen these local and regional agendas rather than redirect them. In practice, this means transparent agenda-setting, equitable leadership roles for local partners, fair arrangements for data and intellectual contribution, and sustained investment in capacity building, including shared infrastructure such as access to AI compute.

Regional emphasis

Protecting local priorities matters most in South Asia, Latin America & the Caribbean, Sub-Saharan Africa, and parts of Middle East & North Africa, where a high commitment to interdisciplinary or challenge-led work can coexist with limited industry funding or international visibility. In Europe & Central Asia, the priority is reforming discipline-based review routes that make cross-field proposals harder to assess, while in North America longer funding horizons and greater stability would help established interdisciplinary structures endure.

For GHEIN, THE, and SSF

The partners behind the rankings and the network are positioned to do what no single institution can: connect different regional starting points, gather evidence across systems, test approaches at scale, and keep the measurement framework itself under review.

1. **Develop and share practical models for recognizing and supporting interdisciplinary work.** GHEIN can document the models already in use across its member institutions for recognizing interdisciplinary work in promotion, governing cross-cutting structures, forming teams, supporting joint appointments, and assessing impact, together with the evidence behind them. Research leaders do not always set these policies, but they can shape them with evidence, adapting models to their own systems rather than adopting a single template.

2. **Test approaches to developing interdisciplinary science leadership in the age of AI.** As AI takes on more of the technical groundwork, the judgment needed to integrate fields and to tell a right answer from a plausible-sounding one becomes more valuable. Drawing on SSF's work developing science leaders and GHEIN's institutional reach, the partners can compare how leadership-development approaches — spanning strategy, AI fluency, and the ability to lead cross-field teams — perform across similar types of institutions, building an evidence base for what works in which contexts.



3. **Establish peer-learning cohorts focused on AI-enabled science, international collaboration, leadership, and institutional practice.** Building on its regional chapters, GHEIN can convene smaller cohorts of institutions working on shared challenges, giving them a structured way to compare approaches, test practices, and report back on what transfers across contexts. Where access is limited, cohorts can also develop regional models for sharing compute, data, infrastructure, and specialist expertise.

4. **Track the changes universities make and the outcomes that follow.** The ISR provides a common baseline. Pairing it with a record of the changes institutions make, such as new promotion criteria, structures created or closed, and new funding schemes, alongside new indicators of partnership equity and locally relevant impact, would give the network longitudinal evidence of which approaches produce durable results in different settings, rather than assuming that practices transfer unchanged.

5. **Consider how the measurement of interdisciplinary science should evolve in the age of AI.** In parallel, THE and its partners should examine whether current ISR measures adequately capture shared infrastructure, AI-enabled capability, interdisciplinary contribution, partnership equity, and forms of impact that are highly valuable locally but less visible through conventional reputation and citation measures. GHEIN's regional discussions can inform how the framework changes in future editions.

CONCLUSION

The 2027 results and case studies point to a recurring structural model, even as the conditions around it differ sharply. Turning that shared learning into progress will depend less on any single ranking than on the dialogue it enables: GHEIN and the Interdisciplinary Science Forum are where these findings are interpreted, the open questions pursued, and practice shared across the institutions and regions working to make interdisciplinary research not only possible but durable.

The evidence also makes clear that progress cannot be judged through a single model of success. Regions and institutions lead in different ways: some through resources and infrastructure, others through the proportion, reach, or local relevance of their interdisciplinary work. The value of ISR is therefore not only in identifying high performance, but in showing where strengths and gaps sit across the research cycle and enabling institutions to compare themselves with appropriate peers rather than against a universal template.

The next step is to turn that understanding into sustained institutional change. Universities need to align career recognition, structures, leadership, and support; funders need to provide review mechanisms and time horizons suited to cross-field work; and networks such as GHEIN can help test which approaches transfer across contexts and which must remain locally designed. If these actors work together, interdisciplinary research can move from being dependent on individual champions or short-term grants to becoming a durable part of how institutions address complex societal problems.

Interdisciplinary research is understood and resourced very differently around the world, and ISR's value is to make those differences legible on a common basis while helping each institution see where, across the research cycle, it can most usefully act.

Interdisciplinary Science Rankings 2027

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