



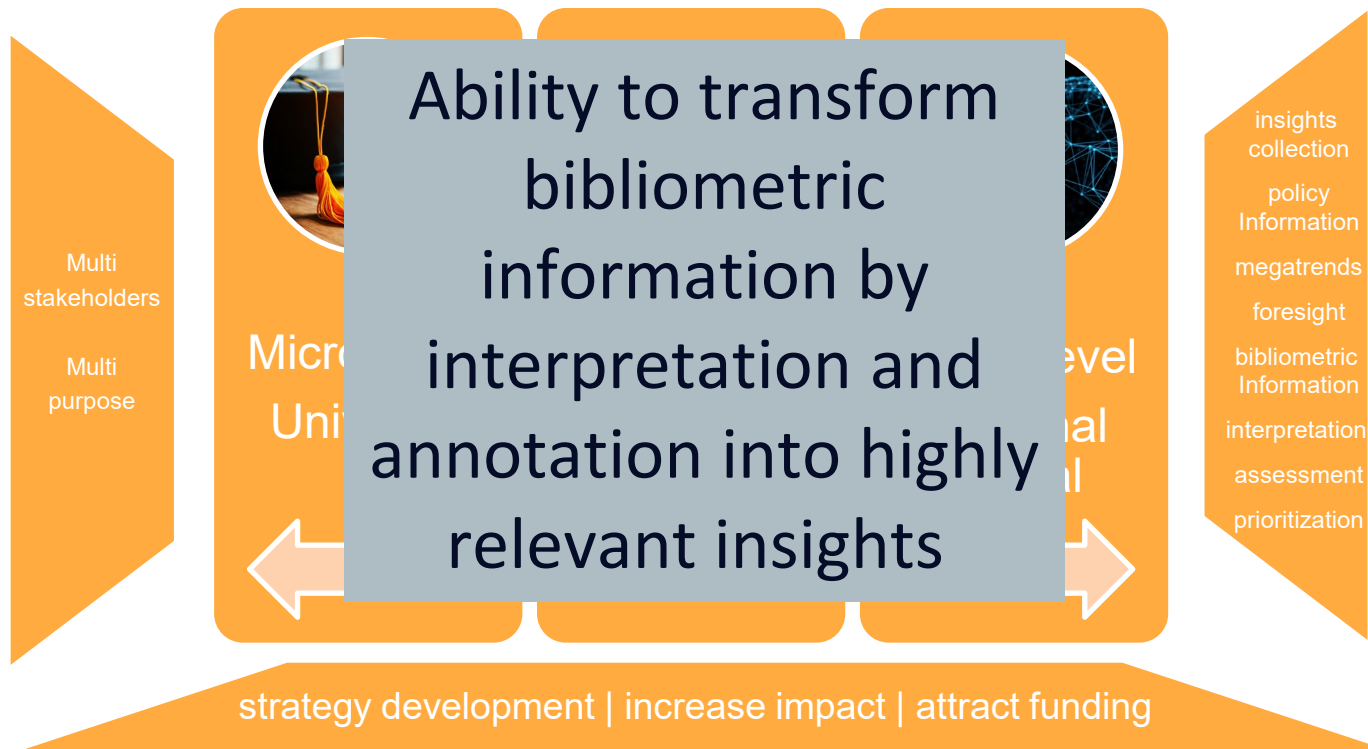
SRA INTERNATIONAL
ANNUAL MEETING
SEATTLE 2023
OCTOBER 14-18

Research Intelligence for Science Prioritization in Academic Planning

The regional dimension of research and innovation in the
Middle East

Luca Polizzi | Manager Strategic Planning and Academic Review | KAUST | Saudi Arabia
Aeisha Salem | Manager Pre-Award and Contracts | KAUST | Saudi Arabia
Fahima A. Nasr | Senior Manager Planning & Sponsored Research | HBKU | Qatar

Research Intelligence: The importance of prioritizing knowledge and intelligence



KAUST in numbers

KAUST was funded in 2009 – Pure relationship started in 2014/2015

جامعة الملك عبد الله
للعلوم والتقنية
King Abdullah University of
Science and Technology



Current Students

~ 1,700

38%
Female

33%
Saudi

Faculty

~ 200

Postdocs

~ 550

Research Scientists

~ 400

KAUST in numbers



Publications

27,436

Patents Issued

948

Startup Companies

40

Most citations per
faculty (2021)

#1

Alumni
2,429

69%
International

31%
Saudi

Research Intelligence (RI) for prioritisation

A new KAUST strategy to accelerate achievements and maximizing the positive impact on human life in the kingdom and the world



KAUST
STRATEGY
Accelerating Impact



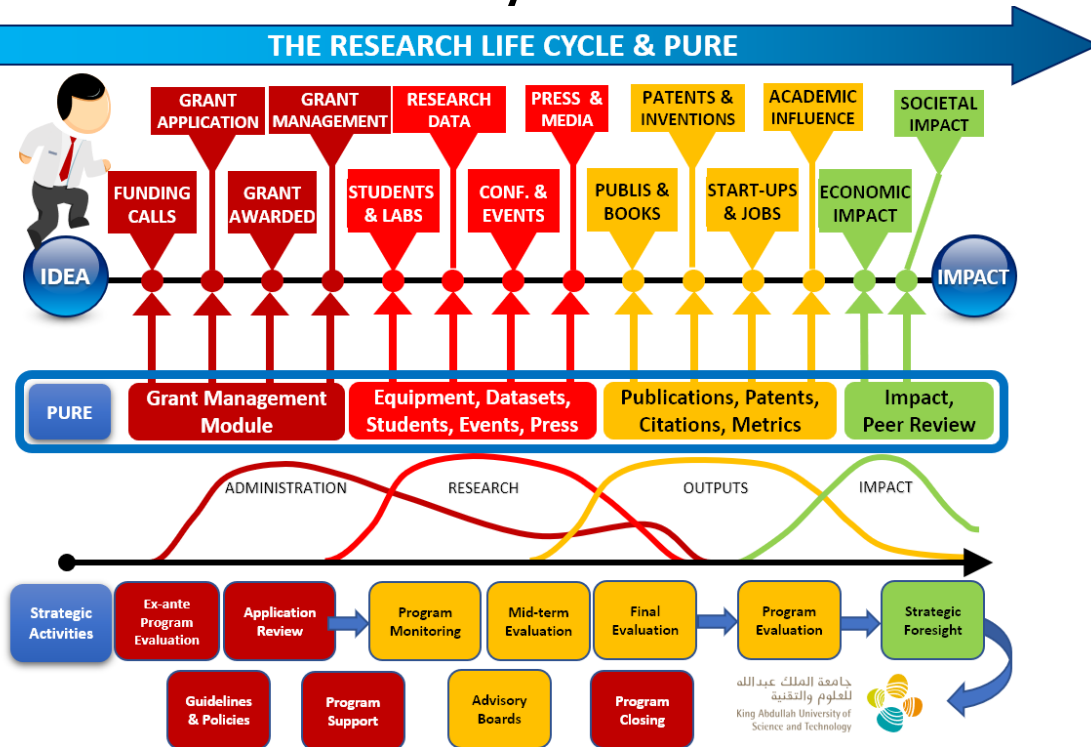
Focused on **R**esearch, **D**evelopment, and **I**nnovation (RDI) Priorities

- Health and Wellbeing
- Sustainable Environment and Essential Needs
- Energy and Industrial Leadership
- Economies of the Future

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King Abdullah University of
Science and Technology

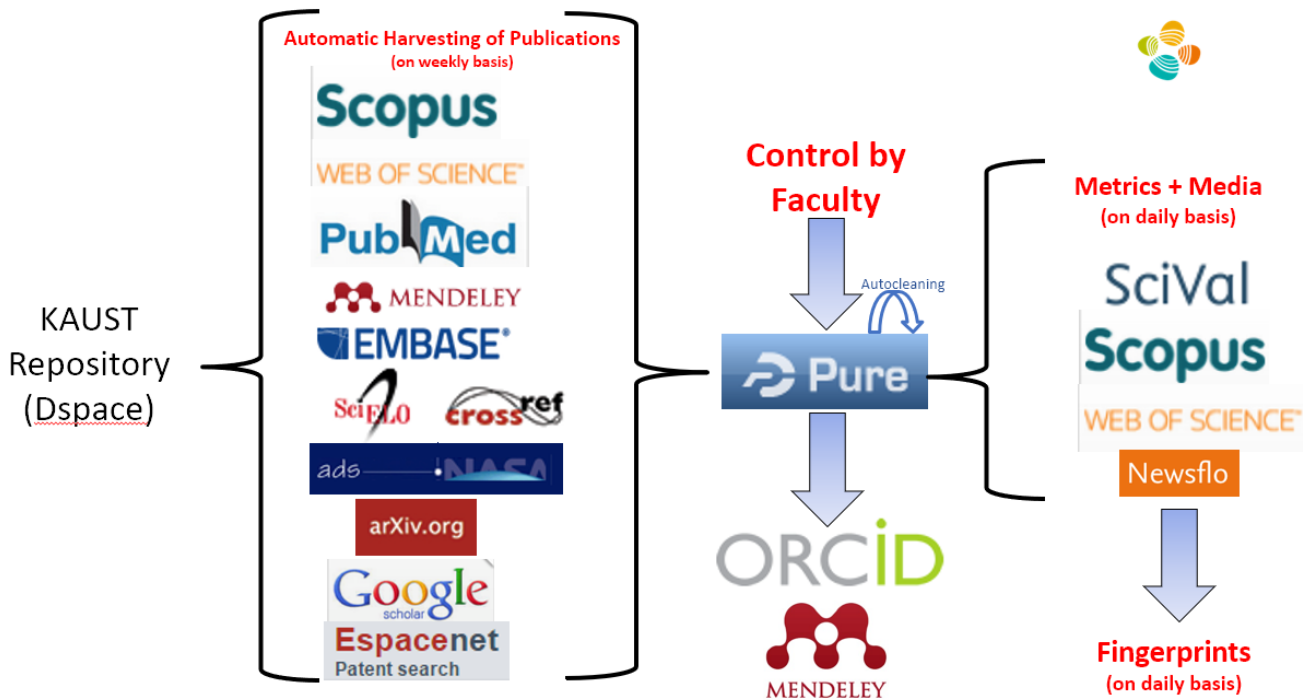


RI in the Research Cycle



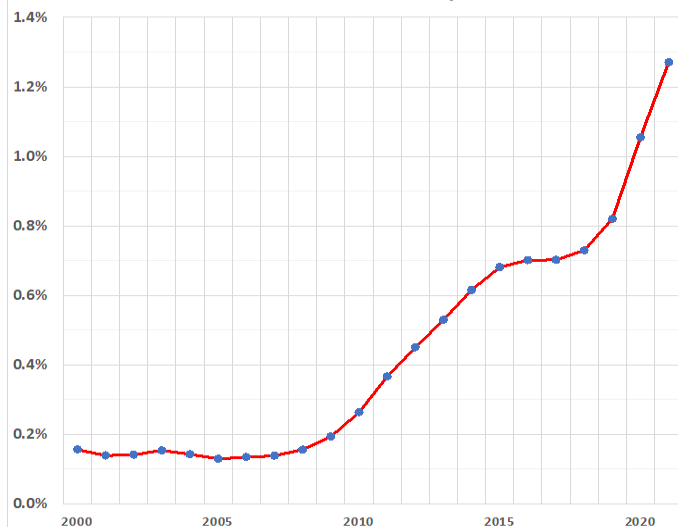
A multi-layered data system to support RI

INPUT-OUTPUT for bibliometrics



Examples 1: Students (1)

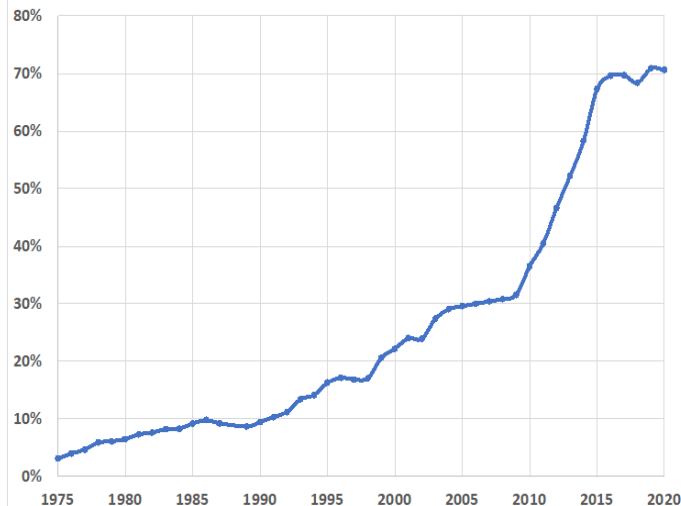
Contribution (%) of Saudi publications to the overall World research publications



Source: Scival

Student enrollment (%) in Saudi Higher Education

(Source: UNESCO)



Source: UNESCO

Examples 1: Students (2)

KAUST Students Report 2023

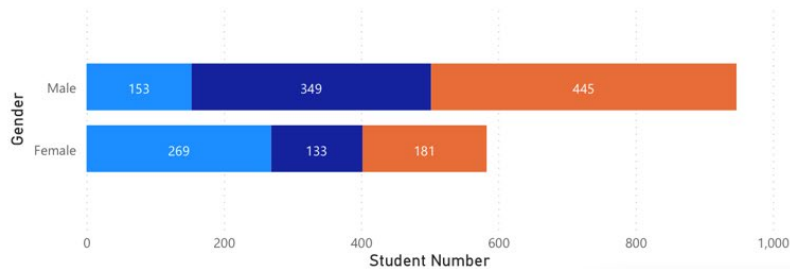
ALL STUDENTS

Count of Total Students by Nationality

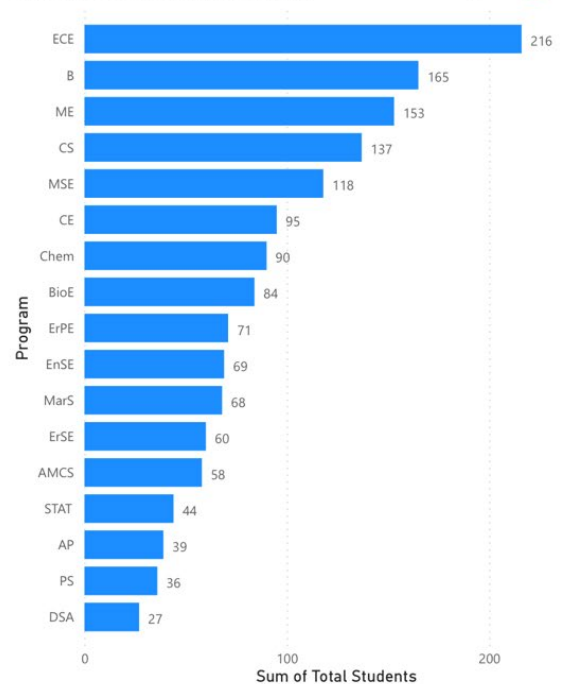


Student Number by Gender and Division

Division ● BESE ● CEMSE ● PSE



Sum of Total Students by Program



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للعلوم والتقنية
King Abdullah University of
Science and Technology



Examples 1: Students (3)

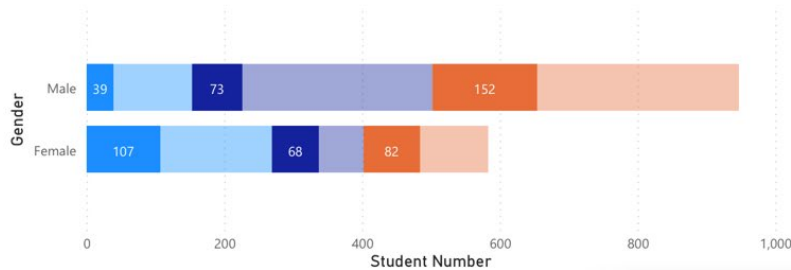
KAUST Students Report 2023

Count of Total Students by Nationality



Student Number by Gender and Division

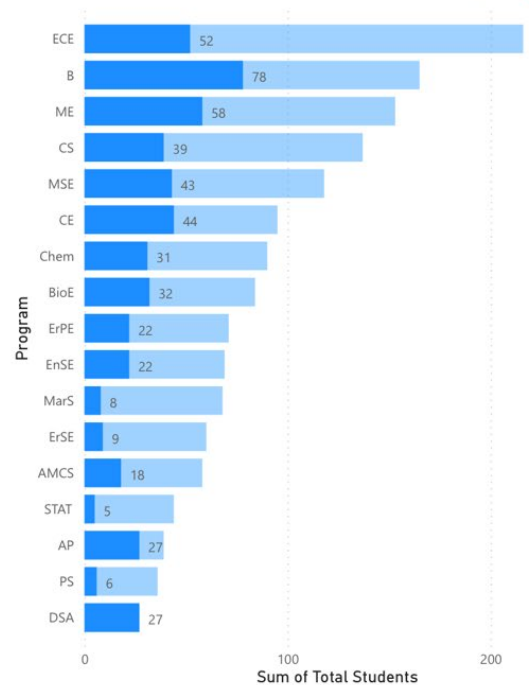
Division ● BESE ● CEMSE ● PSE



SAUDI STUDENTS



Sum of Total Students by Program



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Examples 2: Collaborations

International Collaborations & Rankings

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Science and Technology



KAUST Rankings

2021

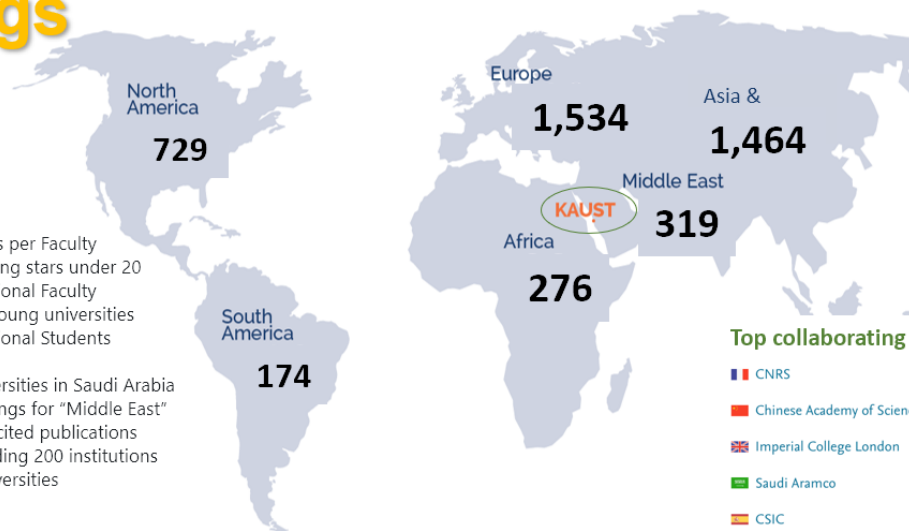
- #1 QS 2021 World Ranking Citations per Faculty
- #2 Nature Index 2021 for world rising stars under 20
- #3 QS 2021 World Ranking International Faculty
- #5 Nature Index 2021 leading 50 young universities
- #9 QS 2021 World Ranking International Students

2022

- #2 US News 2022 Best Global Universities in Saudi Arabia
- #4 Scimago 2022 Institutions Rankings for "Middle East"
- #11 US News 2022 with 10% most cited publications
- #29 Nature Index 2022 Energy leading 200 institutions
- #95 US News 2022 Best Global Universities
- #164 Nature World Index 2022

2023

- #78 Nature Index 2023 Leading institutions in chemistry
- #83 QS 2023 World Universities Ranking by Subject
- #147 Nature Index 2023 Leading academic institutions
- #201-300 ARWU Shanghai 2023



2025
September

KAUST selected to host the
World Academic Summit
by the Times Higher
Education

Source: Scival, Pure – Updated: August 2023

Top collaborating Institutions

- France CNRS
- Chinese Academy of Sciences
- Imperial College London
- Saudi Aramco
- CSIC
- King Fahd University of Petroleum and Minerals
- United States Department of Energy
- University of Oxford
- King Abdulaziz University

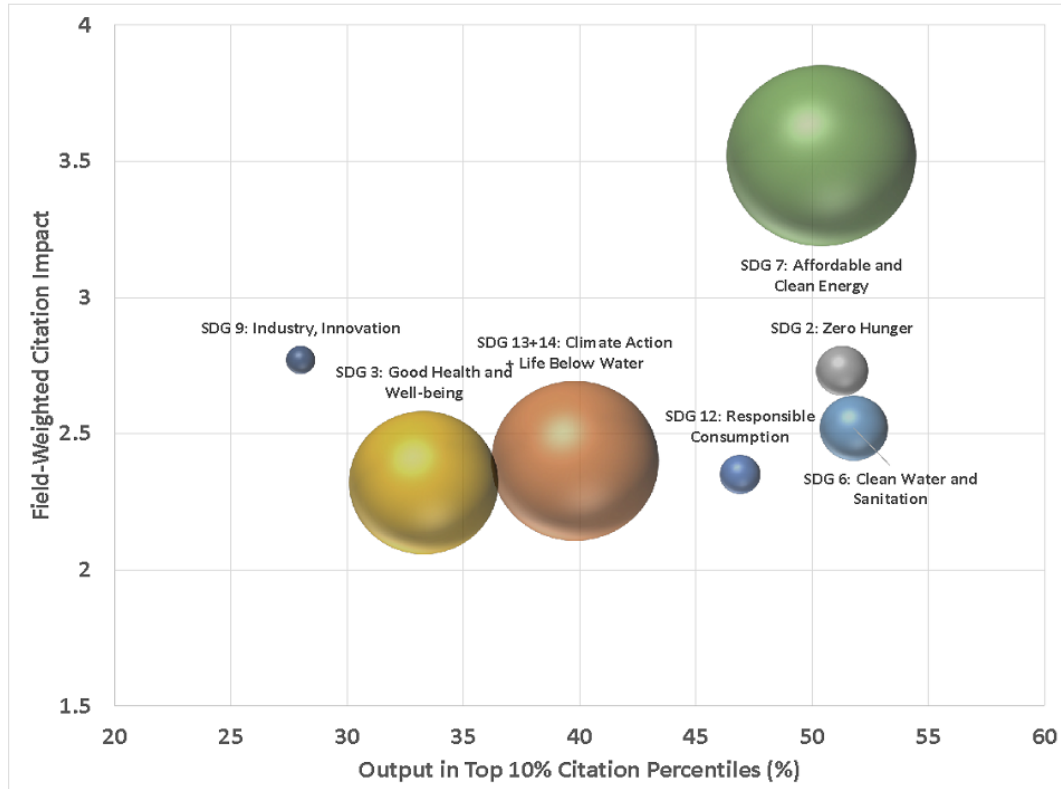
Examples 3: Global priorities

Sustainable Development Goals (SDG) at KAUST

2010-2019

Source Scival, Pure

Bubble sizes are proportional to the number of publications in this domain



What's new in the Middle East Research landscape - Saudi Arabia?

Push for a “new era of accelerated impact”

- an **economy based** on **innovation** and creativity
- promote knowledge-based economic activities as it **diversifies its income streams away toward non-oil sectors** under the grand scheme of **Vision 2030**



Development of Saudi Authority for Intellectual Property

- **Established in 2018**
- **Drive** the **national economy** and enable a vibrant IP ecosystem
- Push for being the **Leading** hub in MENA



الهيئة السعودية للملكية الفكرية
Saudi Authority for Intellectual Property

What's new in the Middle East Research landscape - Saudi Arabia?

Research Development and Innovation Authority

- Then in 2022,
- **National policy** for laboratories and scientific devices,
- Enhance the Kingdom's leadership in innovation at the global level,
- Increase spending on the research, development and innovation sector to reach **2.5 percent of the gross domestic product (GDP) by 2040**,
- this sector will contribute to **diversifying the national economy** by adding **SR60 billion** to the **GDP output** by **creating quality jobs in science, technology and innovation**, and attracting national and international talents in research, development and innovation.

هيئة تنمية البحث
والتطوير والابتكار
Research Development
and Innovation Authority

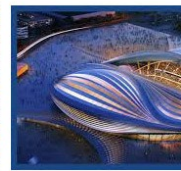


Qatar's Research & Innovation Ecosystem





- ✓ **First FIFA World Cup in the Arab world**
- ✓ **Over one million visitors traveled to Qatar**
- ✓ **9.19 million trips via Metro**
- ✓ **All Stadiums Equipped with Central Air-Conditioning**



Qatar becomes an advanced society capable of sustaining its development and providing a high standard of living for its people



The national vision aims to transform Qatar into an advanced country by 2030, capable of sustaining its own development and providing a high standard of living for its population and future generations.



The state of Qatar aims to achieve this through the following four pillars.



Human development

Development of all Qatar's people to enable them to sustain a prosperous society



Social development

Development of a just and caring society based on high moral standards, and capable of playing a significant role in the global partnership for development



Economic development

Development of a competitive and diversified economy capable of meeting the needs of, and securing a high standard of living, all its people both for the present.



Environmental development

Management of the environment such that there is harmony between economic growth, social development and environmental protection

Qatar National Vision 2030

Qatar becomes an advanced society capable of sustaining its development and providing a high standard of living for its people

50th Ranks among 132 economies

42nd Rank among 50 high-income group economies

6th Rank among the 18 economies in Northern Africa and Western Asia

Year	GDP %
2015	0.5%
2018	0.54%
2021	0.7 %

Source: *Global Innovation Index 2023*

Over the past four years (2020-2023),
Qatar has climbed 20 positions in the Global Innovation Index rankings.

50th in Global Innovation Index 2023 rankings

Qatar also achieved this year advanced rankings in the following

1
General Infrastructure

10
University-Industry R&D Collaboration

14
Tertiary Education

6
Business Environment

7
Entrepreneurship Policies and Culture



Qatar Foundation



a not-for-profit organization where centers and programs focused on education, research and innovation, and community development intertwine for the benefit of Qatar, and the world.



50 + Entities with 8 Universities & 13 Schools



5000 + research projects funded with \$1.4 Billion invested in Research



3 National Research Institutes with **+300** Researchers

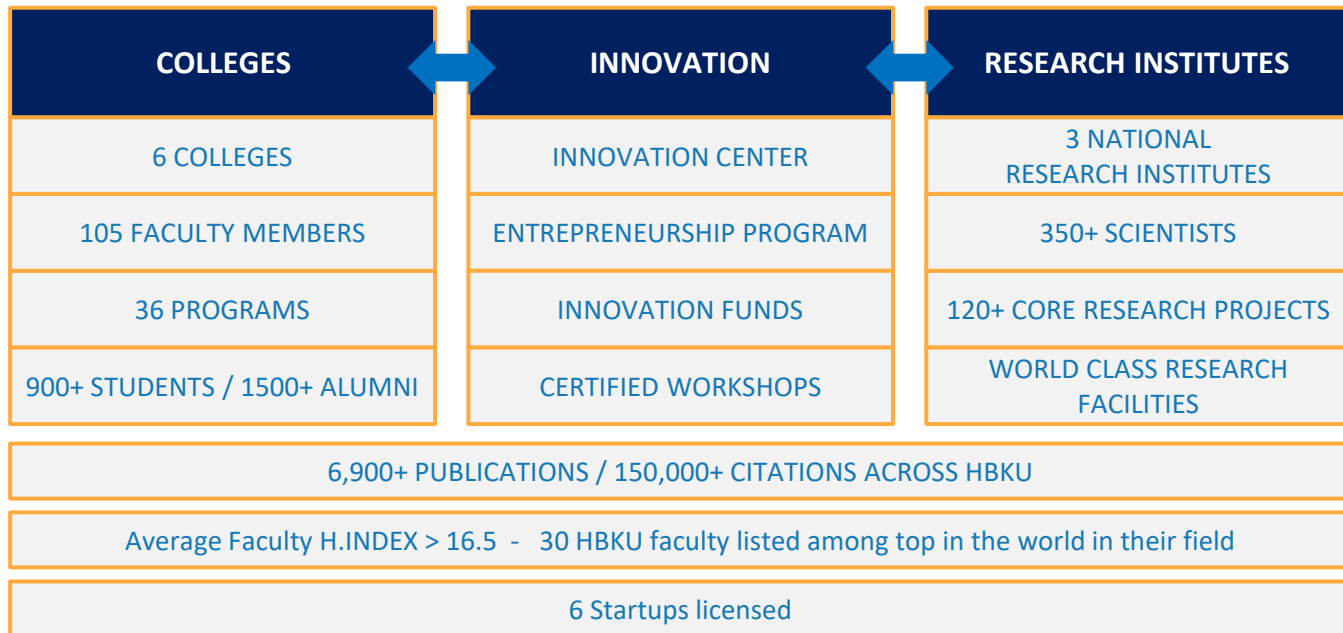


Qatar Science & Technology Park **42** Startups



Qatar National Library **+ 1 Million** books

Hamad Bin Khalifa University (2010)



Research Global Trends

- ☐ Increase in R&D spending (2.05% to 2.63% GDP in 2020)
- ☐ COVID has shown global weaknesses
- ☐ Increase focus on innovation – knowledge-based economies
- ☐ Focus on digitization and AI
- ☐ More funding for translational research and research geared toward applications
- ☐ Increased environmental concerns
- ☐ Increase in international collaborations



Research Intelligence on Research Administration

Importance of Research Intelligence in Driving Sponsored Research Office

RI in pre-award:

- Increase grant success rates with funding insights,
- Uncover new funding source
- identifying best-fit researchers and existing and potential cross-sector partners
- Enhance research efficiency and proposal

RI in Post Award :

- optimizing data validation, system integration, and research tracking and administration.

Outreach and Impact

- Enhance your reputation for research excellence and advance open science by increasing research interactions and profile visibility.

Capacity Building

- Invest in staff training and development

Evidence-Based Research Management Decisions



Data:

Transparent, accurate, current, and granular.



Technology:

Flexibly structured database with complex tags to match all related elements and process vast datasets quickly and accurately.



Metrics:

Consistent, clearly defined, offering community buy-in; can be selected by the user.

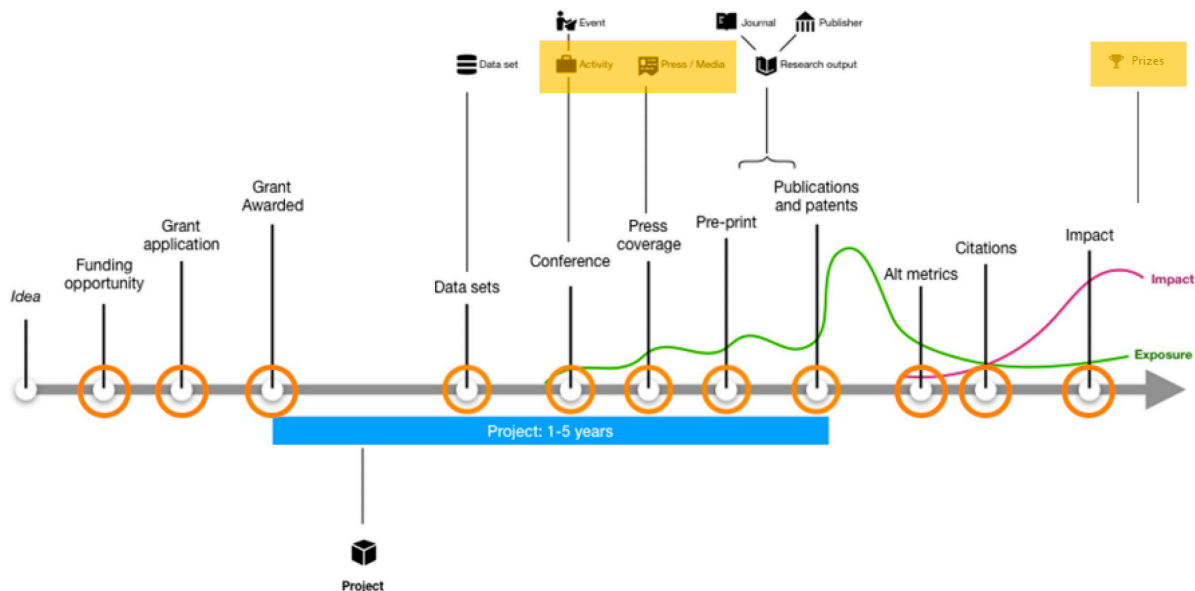


Visualizations:

Adaptable, easy to understand, exportable.

The four ingredients you need to make evidence-based research management decisions with confidence

Research Project Lifecycle- Research Intelligence



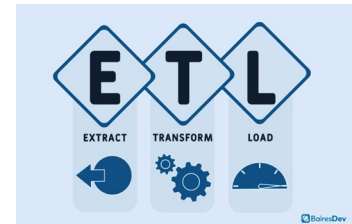
Data System to Support AI



SciVal

Pure

Scopus[®]



Increase Operation process Efficiency

Employee
Sponsored Research Office Portal
SRO Manager
SRO Project Management

Home Page
Applications
All My SRO Tickets
Project Timesheets
Project Financial Status Reports
Funding Sponsors
Collaborators
Logoff

SRO - Forms I Can Submit (4 items)

☐ **Name**

- Proposal Internal Approval Form**
This form is used to submit a proposal to the Sponsored Research Office.
- Request New Collaborator**
- Request New Sponsor**
- SRO Ticketing Form**
Used for any inquiry related to the SRO project/proposals.

My SRO Form Submitted (0 items)

Name	Status	Current Step	Last Updated
No records found			

User Guides

Click on the object name to open the user guide.

Name	Size	Updated By	Updated On
Instructions for AIA Form.pdf	1.05 MB	Maimoona Mirza	10/10/2022
SRO - Request New Collaborative Institute Form User Guide.pdf	370 KB	Usman Riasat	10/9/2022
SRO - Request New Funding Sponsor Form User Guide.pdf	383 KB	Usman Riasat	10/9/2022
SRO Pre-Award PIA form User Guide.pdf	1.34 MB	Usman Riasat	10/9/2022
SRO Ticketing Form User Guide.pdf	1.79 MB	Usman Riasat	10/9/2022
SRO Timesheet and Financial Report User Instructions.pdf	548 KB	Maimoona Mirza	10/30/2022

Tools to Monitor and Analyze Research Project Performance

Research Project Scored Card & Risk Assessment

PROJECT SCORE CARD REPORT												
Project Information												
Prime Sponsor	Report date			14-Jul-2023 Report Period: From 14-Jul-2023 to present								
Project Sponsor's Code				SRP Project Code		Award Active						
Project Title				Project Name		Award Active						
Co-Funder				Co-Funder Name		Award Active						
Start Date	14-Jul-2023	End Date	14-Jul-2024	Project Year		Year 2						
Overall - PROJECT SCORE CARD		Schedule Status	Behind Schedule		Scope Changes		No					
		Ethical Compliance	Not applicable		% of spending vs. Received		117.16%					
		Researcher: Personnel	2		Responsiveness Level		Good					
Financial Data												
Category	Expenditure - Committed	Approved Budget	Paid (Revised) Budget		% of spent vs. Paid*							
Equipment	5,000.00	5,000.00	17,839.00		358%							
Personnel (Researcher)	200,000.00	200,000.00	270,779.00		135%							
Tuition fees	0.00	0.00	0.00		0%							
Travel	0.00	0.00	0.00		0%							
Miscellaneous	0.00	0.00	0.00		0%							
Interest Cost	0.00	0.00	0.00		0%							
Total	205,000.00	205,000.00	270,779.00		132%							
117.16%												
Work Package												
Work package name	Deliverables completed as per Original Research Plan	Start date	End date	% of completion expected by 1st July	% of completion as of today	Track or behind schedule *						
Project management	Yes	14-Jul-2023	14-Jul-2024	75%	55%	On Track						
2D Visualization	Yes	14-Jul-2023	14-Jul-2024	95%	100%	Behind Schedule						
24a Creation & Report	Yes	14-Jul-2023	14-Jul-2024	95%	100%	On Track						
Development of Professional Version "WP" was initially expected with WP2	Yes	14-Jul-2023	14-Jul-2024	100%	100%	On Track						
	No	14-Jul-2023	14-Jul-2024	0%	-1%	On Track						
	Yes	14-Jul-2023	14-Jul-2024	0%	10%	Behind Schedule						
	Yes	14-Jul-2023	14-Jul-2024	45%	37%	On Track						
	Yes	14-Jul-2023	14-Jul-2024	22%	10%	Behind Schedule						
	Yes	14-Jul-2023	14-Jul-2024	45%	10%	Behind Schedule						
Communication and General Compliance												
Name *		Agreement status	Required Year	Total Budget	Spent (Paid to the collaborator)	Outstanding*						
Ostar University		Fully Executed	Year 1	\$	216,000	\$	26,077.08	\$	46,922.00			
Kutub Cultural Village (Whitlax)		Not Applicable	Year 1	\$	0	\$	26,077.08	\$	46,922.00			
Co-Funder in Cash Name *		Amount	Agreement status	Received Amount - Cash*	Received Amount - In Kind/Whitlax							
Co-Funder 1		\$	-	\$	At Budget							
Co-Funder 2		\$	-	\$	Kutub							
Communication and General Compliance		Good	Rating Project request in timely manner and respond on time		Yes	OVERALL LEVEL of Responsiveness*		Good				

Collaborative Institutions	Name *		Agreement status		Required Year	Total Budget	Spent (Paid to the collaborator)*		Outstanding*		
	Ostar University		Fully Executed		Year 1	\$	216,000	\$	26,077.08	\$	46,922.00
	Kutub Cultural Village (Whitlax)		Not Applicable		Year 1	\$	-	\$	26,077.08	\$	46,922.00
Co-Funders	Co-Funder in Cash Name *		Amount	Agreement status		Received Amount - Cash*		Received Amount - In Kind/Whitlax			
	Co-Funder 1		\$	-	\$		-	At Budget			
	Co-Funder 2		\$	-	\$		-	Future			
Communication and General Compliance	Good		Rating Project request is timely manner and respond on-time				Yes	OVERALL LEVEL of Responsiveness*			
								Current Contract and date*			
								Requested Renewal/Extension *			
Resources: Personnel/Student in HRU	Name *		Position *		Joined date*						
	Admin Dept		Research Assistant 2		11-Sep-2022		10-Feb-2024				
			Research Assistant 3		3-Aug-2022		8-Apr-2024				
Scope Changes	# Minor Approved change Request *		# Major Approved Change Request*		Classification *		Change in the scope (Manual selection)				
	3		3		Major change in the scope		No				
Reports Timeline	Type	Report start date (SRP First Round)	Report start date (SRP Second Round)	SRP Deadline (to be submitted within 8 weeks before the deadline)	Submission Date	Submission Status*	Sponsor Deadline	Sponsor Action			
	First Annual	29-Jun-2022	6-Jul-2022	15-Jul-2022	6-Jul-2022	Early submission	29-Jul-2022	Agreement			
	Second Annual	29-Jun-2023	6-Jul-2023	15-Jul-2023	12-Jul-2023	Early submission	29-Jul-2023	Pending Sponsor Approval			
	Final Annual Report	14-Jun-2024	21-Jun-2024	30-Jun-2024		Early submission	14-Jul-2024				
MAJOR RISKS											
The project is currently operating under spending, but there is no financial risk. The majority of the budget is allocated for personnel. Approximately 250,000 USD has been committed as costs for a Post Doc, who is hiring will start after signing the second progress report, and approximately 580,000 USD has been allocated for both Research Assistant 2&3											

Dashboards

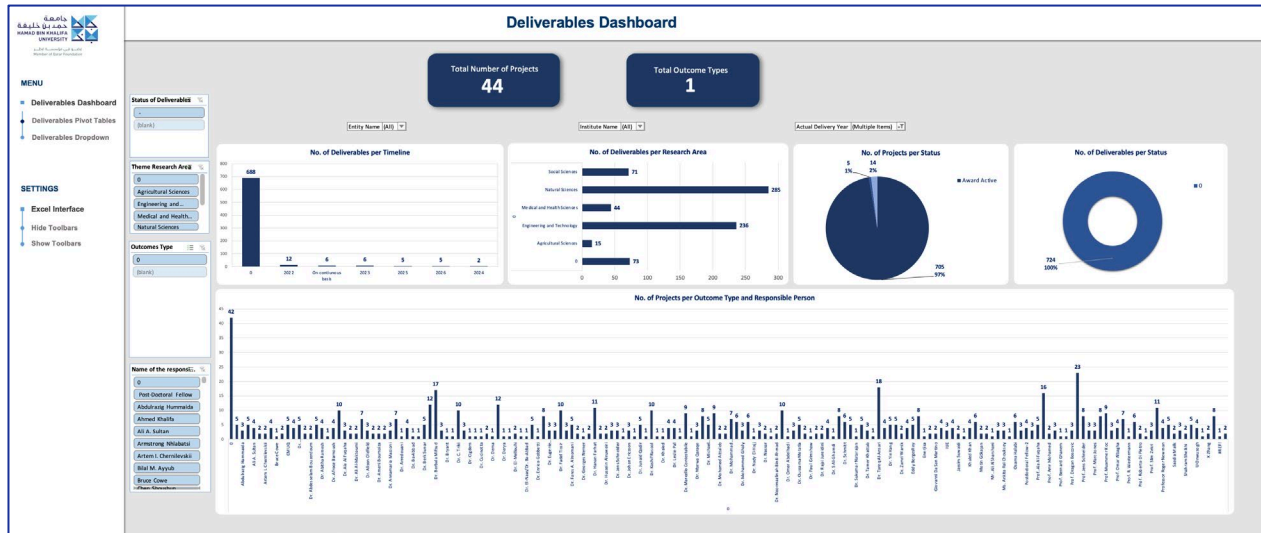
Recruiting on Research Grants Projects Dashobaords



Proposals Dashobaords

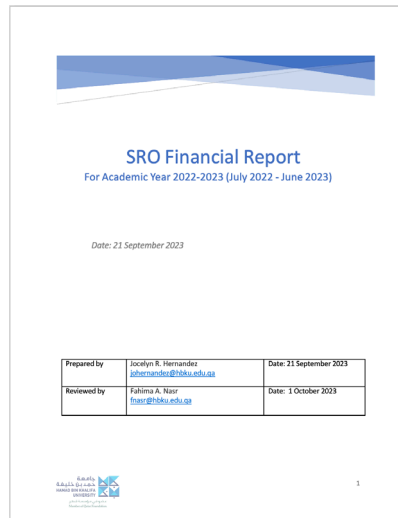
Dashboards

Research Grants Deliverables



Leadership Reporting

1. Office Reports
2. Departmental Report Every 6 months
3. Research office Executive report Every 6 months



1. Increase the cost of research
2. Research funding is shrinking – increased competition
3. Shift from long-term to short-term funding
4. International funding can be challenging due to regulations/politics
5. Governments want to see universities build more partnerships with third parties (e.g., nonprofits and industry) to increase funding and enhance research capabilities and impact
6. COVID has heightened the general views that question the capacity of universities to demonstrate real-world impact
7. Difficulty in retaining talent

● RESEARCH CHALLENGES (POST-COVID)

"In a world of big data, the real skill lies in connecting the dots." - Pearl Zhu



SOCIETY OF
RESEARCH
ADMINISTRATORS
INTERNATIONAL

جامعة
حمد بن خليفة
HAMAD BIN KHALIFA
UNIVERSITY



شكرا جزيلا!

Thank you!