



وزارة التعليم

Ministry of Education

وكالة البحث والابتكار

Deputy for Research & Innovation

KSA University Research & Innovation Strategy

Institutional Guidelines: Strategy Instructions

v1

Please note that the full Institutional Funding Guidelines will be made available following the Research & Innovation Strategy Workshop that will take place on Nov. 13-14

Instructions on how to complete the ‘KSA University Research & Innovation Strategy Template’

Why to fill out the Strategy Template:

The ‘KSA University Research & Innovation Strategy Template’ has two key objectives:

1. Firstly, the Template will be used by Saudi Arabia’s Ministry of Education to assess each of the 27 public universities’ historical R&D performance on a competitive basis to allocate institutional funding from 2020 to 2022
2. Secondly, the Ministry of Education highly recommends universities to:
 - a. Adopt this Strategy Template as their broader University Research & Innovation Strategy for the period 2020 to 2024, or for universities to at least consider
 - b. Incorporating this Strategy Template into their existing University Research and Innovation Strategies

When to fill out the Strategy Template:

The deadline to submit the Strategy Template is as follows:

- First Draft: Saturday 14, December 2019
- Final Draft: Sunday 26, January 2020

Please refer to the ‘Strategy Evaluation Timeline’ available on the Deputyship of Research & Innovation’s webpage hosted by the Ministry of Education for more details regarding interim activities and opportunities to discuss the Strategy Template with the official Review Committee prior to submission.

Who should fill out the Strategy Template:

Completing the Strategy Template should be a team process. Not one individual would have a full understanding of every metric required within the Strategy, thus, it is the responsibility of the university to determine (a) who should be part of the core strategy team per university; (b) which other individuals within the university will also be required to share information; and (c) who will lead the full Strategy development process.

How to fill out the Strategy Template:

The Strategy Template is broken into two parts: ‘**The Context**’ and ‘**The Plan**’. The Context Section asks universities to provide historical data on their Research and Innovation activities. The Plan Section asks universities to share their future Research and Innovation plans and activities.

Please refer to the instructions below for more information on how to fill out your ‘University Research and Innovation Strategy Template’.

Part 1: The Context

The core objectives in developing ‘The Context’ section of the University Research & Innovation Strategy are:

- **R&D Baseline:** To establish a baseline of knowledge on your university’s existing Research and Innovation activities
- **Existing Capabilities:** To generate a better understanding of your internal capabilities and broader R&D advantages across the Kingdom’s R&D ecosystem
- **Future Enhancement:** To develop key findings as well as specific recommendations to further enhance your university’s internal capabilities and outputs

In terms of allocating Ministry of Education institutional funding to your university from 2020 to 2022, ‘The Context’ section of this Strategy Template will be used to assess your university’s Research and Innovation historical performance against a set of evaluation criteria, and against the historical performance of the 26 other public Saudi universities.

Section 1: Mission and Scope for Research

1.1 University Mission Statement for Research

Please provide a maximum of 4 high-level statements that describe the purpose of your university’s R&D (why does it exist), and what makes your university’s R&D unique.

Your university’s Mission Statements can, if applicable, be linked to any of the following topics:

1. The excellence in research and scientific outcomes that the university aims to achieve (or continue to achieve)
2. The innovation/commercialization challenges that the university aims to address (or continue to address)
3. The economic and/or industrial sectors that the university will target (or continue to target)
4. The societal issues or community challenges that the university aims to contribute to (or continue contributing to)

1.2 Disciplinary Strengths

Please share a select number of disciplines you identify your university to have research excellence in. Your university should already have existing research, development, and innovation activities in each discipline you share.

Please note that when the Review Committee assess the total number of ‘Disciplinary Strengths’ you provide, they will assume that the 1st Disciplinary Strength you share has the highest levels of research excellence, while your last Disciplinary Strength you share will have lesser levels of research excellence than your 1st Discipline.

While the Deputyship does not enforce a maximum or minimum number of ‘Disciplinary Strengths’ – the Deputyship as well as the Review Committee expect universities to provide an appropriate number of ‘Disciplinary Strengths’ according to their existing capacity for research. Thus, more research-intensive or larger universities may provide more ‘Disciplinary Strengths’ versus a more teaching-intensive, smaller, or newer universities.

Universities should select Disciplinary Strengths based on the following options only, in alignment to the 2015 Frascati Manual’s ‘Second-Level Classifications’. Note that there will also be space for your university to include any interdisciplinary strengths after this section of the Strategy Template.

<p><u>1. Natural Sciences</u> → [<i>Broad Classification</i>] 1.1 Mathematics → [<i>Second-Level Classification</i>] 1.2 Computer and information sciences 1.3 Physical sciences 1.4 Chemical sciences 1.5 Earth and related environmental sciences 1.6 Biological sciences 1.7 Other natural sciences</p>	<p><u>2. Engineering and technology</u> 2.1 Civil engineering 2.2. Electrical engineering, electronic engineering, information engineering 2.3 Mechanical engineering 2.4 Chemical engineering 2.5 Materials engineering 2.6 Medical engineering 2.7 Environmental engineering 2.8 Environmental biotechnology 2.9 Industrial biotechnology 2.10 Nano-technology 2.11 Other engineering and technologies</p>
<p><u>3. Medical and health sciences</u> 3.1 Basic medicine 3.2 Clinical medicine 3.3 Health sciences 3.4 Medical biotechnology 3.5 Other medical science</p>	<p><u>4. Agricultural and veterinary sciences</u> 4.1 Agriculture, forestry, and fisheries 4.2 Animal and dairy science 4.3 Veterinary science 4.4 Agricultural biotechnology 4.5 Other agricultural sciences</p>
<p><u>5. Social sciences</u> 5.1 Psychology and cognitive sciences 5.2 Economics and business 5.3 Education 5.4 Sociology 5.5 Law 5.6 Political science 5.7 Social and economic geography 5.8 Media and communications 5.9 Other social sciences</p>	<p><u>6. Humanities and the arts</u> 6.1 History and archaeology 6.2 Languages and literature 6.3 Philosophy, ethics, and religion 6.4 Arts (arts, history of arts, performing arts, music) 6.5 Other humanities</p>

Please note that within the PowerPoint version of the Strategy Template, you will need to duplicate the PowerPoint slides for each ‘Disciplinary Strength’ you have. However, when it is time to upload your ‘Disciplinary Strengths’ onto the official online Portal, there will be an online option to increase the number of ‘Disciplinary Strengths’ you want to share.

1.2 Disciplinary Strengths (cont.) – “What specific sub-disciplinary topics would you identify your university to have research excellence in?”

Please share which topics within your ‘Disciplinary Strength’ your university has research excellence.

For example, if a university were to choose ‘Mathematics’ as its ‘Disciplinary Strength’ which field of Mathematics in particular does the university specialize in?

Or, if a university were to choose ‘Basic Medicine’ as its ‘Disciplinary Strength’ which topics or keywords in ‘Basic Medicine’ does the university concentrate on?

Universities are recommended to refer to the 'All Science Journal Classification' as a reference when identifying which sub-disciplines they specialize in.

Please refer to the All Science Journal Classification through this link:

<https://pg.edu.pl/documents/611754/75313317/asjc>

If there is not have enough room to fill in the sub-disciplinary topics within the PowerPoint slides, feel free to add more space. However, when universities officially submit their Strategies through the online Portal, there will be sufficient space to add sub-disciplines.

1.2 Disciplinary Strengths (cont.) – A. Number of Post-Docs in this discipline (2018-2019 academic year)

Please provide the total number of full-time Post-Doctoral students that were enrolled in your university, and that were conducting research related to your university's selected 'Disciplinary Strength(s)' for the 2018-2019 academic year.

1.2 Disciplinary Strengths (cont.) – B. Number of PhDs in this discipline (2018-2019 academic year)

Please provide the total number of full-time PhD students that were enrolled in your university, and that were conducting research and/or studying a topic related to your university's selected 'Disciplinary Strength(s)' for the 2018-2019 academic year.

1.2 Disciplinary Strengths (cont.) – C. Number of Master's Students in this discipline (2018-2019 academic year)

Please provide the total number of full-time Master's students that were enrolled in your university, and that were conducting research and/or studying a topic related to your university's selected 'Disciplinary Strength(s)' for the 2018-2019 academic year.

1.2 Disciplinary Strengths (cont.) – D. Name of the University Academic Department(s) involved in this discipline (2018-2019 academic year)

Please provide the name(s) of any Academic Departments within your University that directly contributed to advancing knowledge in a topic related to your university's selected 'Disciplinary Strength(s)' for the 2018-2019 academic year.

If the topic is multidisciplinary, but involves your selected 'Disciplinary Strength', please list the name of all of the Departments involved.

1.2 Disciplinary Strengths (cont.) – E. Name of the Specialized Research Center(s)/Institute(s) in this discipline (2018-2019 academic year)

Please provide the name(s) of any Specialized Research Center(s) or Institute(s) within your University that directly contributed to advancing knowledge in a topic related to your university's selected 'Disciplinary Strength(s)' for the 2018-2019 academic year.

If the topic is multidisciplinary, but involves your selected 'Disciplinary Strength', please list the name of all of the Centers or Institutes involved.

1.2 Disciplinary Strengths (cont.) – F. Number of ongoing projects contributing to the discipline (2018-2019 academic year)

Please provide the number of projects that your university was involved in for the 2018-2019 academic year.

According to the 2015 Frascati Manual, a Research *“Project consists of a set of R&D activities, is organized and managed for a specific purpose, and has its own objectives and expected outcomes, even at the lowest level of formal activity”*

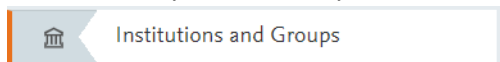
1.2 Disciplinary Strengths (cont.) – G. Number of Scopus publications contributing to this discipline (2014-18)

What is a publication? A publication includes Articles, Reviews, Chapters, Notes, Editorials, Books, Conference Papers, and Letters. ‘Publication’ is used synonymously with ‘Scholarly Output’ for Scopus data.

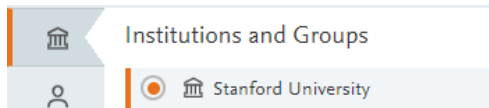
This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

- Log into Saudi Digital Library
- Log into SciVal – available in “English Databases”
- On the “Welcome to SciVal” main webpage, select “Go to Overview”
- To search for your university, Click on “Institutions and Groups” on the left side of the webpage



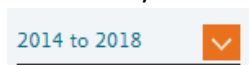
- Then click on “ + Add Institutions and Groups”, and enter your university’s name



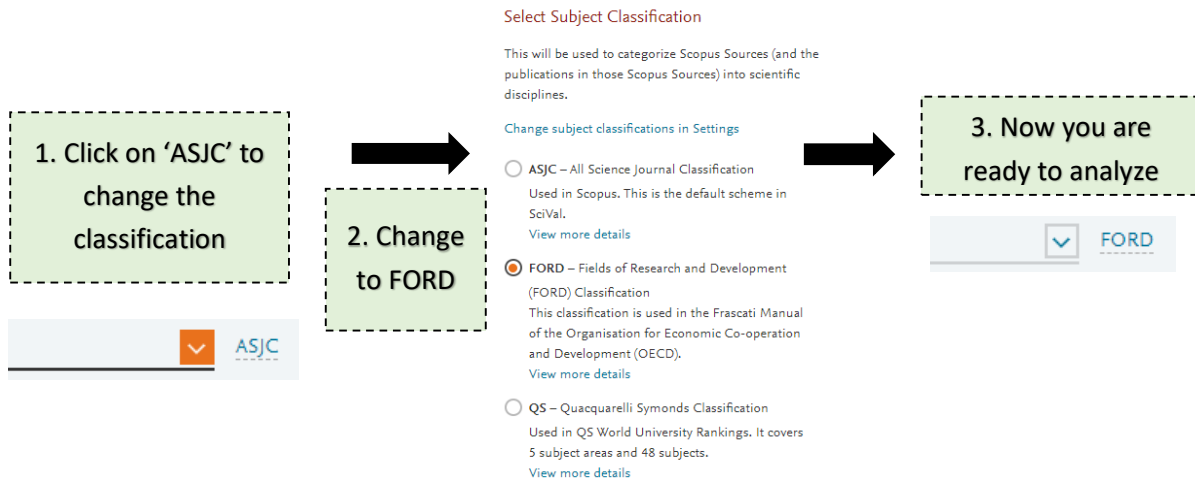
- To find the Publications for your ‘Disciplinary Strength’ click on “Summary”



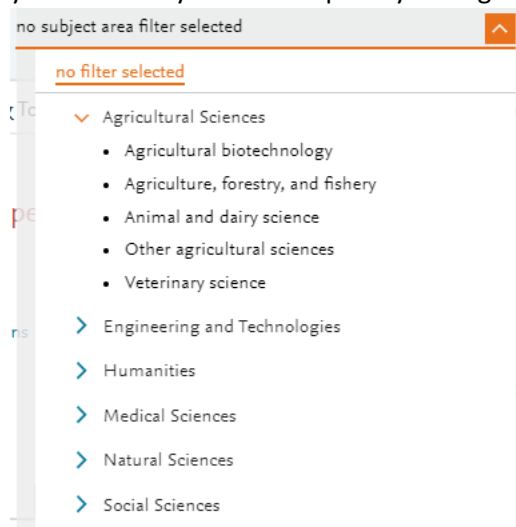
- Make sure your Time Period Selection is from “2014 to 2018”



- Change the disciplinary classification from “ASJC” to “FORD” in order to align the SciVal data to your Frascati Manual’s ‘Disciplinary Strength’ classification:



- Click on “no subject area filter selected”, and click on the arrow next to the High-Level discipline your university has a ‘Disciplinary Strength’ in



- After you select the sub-discipline, for example “Veterinary Science”, the following data will show up on the webpage; **The ‘Scholarly Output’ is the number you are looking for.**



1.2 Disciplinary Strengths (cont.) – H. Number of non-Scopus publications contributing to this discipline (2014-18)

What is a publication? A publication includes Articles, Reviews, Chapters, Notes, Editorials, Books, Conference Papers, and Letters. ‘Publication’ is used synonymously with ‘Scholarly Output’ for Scopus data.

Please provide any additional publications your university produced between 2014 and 2018 that is not indexed in Scopus. This may include publications in journals not indexed in Scopus, and this may include publications published in Arabic.

1.2 Disciplinary Strengths (cont.) – I. Number of patents filed in the discipline this discipline (2015-18)

*Please note that this information will be provided to you by email after the Workshop

1.2 Disciplinary Strengths (cont.) – J. Number of patents issued in the discipline this discipline (2015-18)

*Please note that this information will be provided to you by email after the Workshop

1.2 Disciplinary Strengths (cont.) – K. Name of journals published by your university that focus on this discipline, in addition to the journal's Scopus CiteScore metric

Please provide the names of any Journals that your university (a) owns, and (b) publishes publications related to your 'Disciplinary Strength' in.

To find out if your Journal is indexed in Scopus:

- Open <https://www.scopus.com/sources.uri?>
- Select the "Sources" tab

Search Sources Alerts Lists Help v SciVal ↗

- Type the name of your Journal and click 'Find sources'

- Find your Journal in the results table and click on the name of the journal to see its details

1 result [Download Scopus Source List](#) [Learn more about Scopus Source List](#)

All v
View metrics for year: 2018 v

Source title v	CiteScore v	Highest percentile v	Citations 2018 v	Documents 2015-17 v	% Cited v
<input type="checkbox"/> 1 Review of Economic Dynamics	2.33	82% 103/592 Economics and Econometrics	300	129	71

- The Journal page will open, and the "CiteScore" will be available within "Journal Details"

Review of Economic Dynamics

Scopus coverage years: from 1998 to Present

Publisher: Elsevier

ISSN: 1094-2025 E-ISSN: 1096-6099

Subject area: Economics, Econometrics and Finance; Economics and Econometrics

[Journal Homepage](#)

CiteScore 2018
2.33 ⓘ
[Add CiteScore to your site](#)

SJR 2018
4.990 ⓘ

SNIP 2018
1.927 ⓘ

What is CiteScore? "CiteScore calculates the average number of citations received in a calendar year by all items published in that journal in the preceding three years. The calendar year to which a serial title's

issues are assigned is determined by their cover dates, and not the dates that the serial issues were made available online”¹

1.2 Disciplinary Strengths (cont.) – L. Contribution towards economic, social, or industry issues in this discipline (2015-2018)

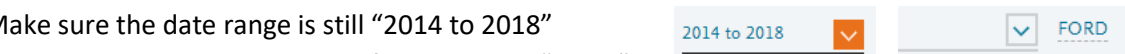
Please share any contributions your university has made through research and innovation activities towards any economic, social, or industry issues and challenges between 2015 and 2018. This can be at the local, national, or international level.

1.2 Disciplinary Strengths (cont.) – M. Field-Weighted Citation Impact of your discipline based on the ‘Fields of Research and Development’ Frascati Manual classification available in Scopus (2014-2018)

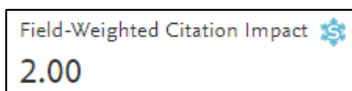
This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

- Log into SciVal
- Select your university’s name [please see the instructions for 1.2 G in these Guidelines if you do not know how to do this]
- Make sure the date range is still “2014 to 2018”
- Make sure the Disciplinary classification is still “FORD”
- Select your Disciplinary Strength’s classification, as in the example below for Stanford University



- After you select the sub-discipline, for example “Veterinary Science”, the following data will show up on the webpage; **The ‘Field-Weighted Citation Impact’ is the number you are looking for.**

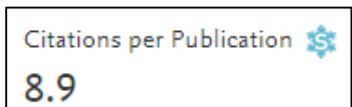


1.2 Disciplinary Strengths (cont.) – N. Average citations per publication in this discipline based on the ‘Fields of Research and Development’ Frascati Manual classification available in Scopus (2014-2018)

This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

- On the exact same webpage you used to retrieve the ‘Field Weighted Citation Impact’ metric, you will see: “Citations per Publication”
- **The “Citations per Publication” is the number you are looking for**



¹ Source: ‘CiteScore metrics FAQs’, Elsevier, (2018)
https://www.elsevier.com/_data/assets/pdf_file/0008/318284/CiteScore-metrics-FAQs.pdf

1.2 Disciplinary Strengths (cont.) – O. The name and a short description of any key collaborations or strategic partnerships your university had with external stakeholders in this discipline (2015-2018)

Please list any major collaborations or strategic partnerships your university had in your Disciplinary Strength from 2015 to 2018. This can be at the local, national, or international level; and this can involve both private and public sector entities (e.g., research institutions, universities, Ministries, industry players).

Note that your university will be judged not on how many collaborations or partnerships it has; rather, you will be judged on (a) the vitality and (b) the sustainability of your collaborations and partnerships.

1.2 Disciplinary Strengths (cont.) – P. Interdisciplinary Research & Innovation Activities (if applicable)

If applicable, this question provides your university the space to share information on R&D activities that concentrate on a topic that incorporates more than 1 discipline.

What is ‘Interdisciplinary Research’?” A mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.”²

Section 2: Current Capabilities for Research

Note that this section is not disciplinary-based; the responses for Section 2 should relate to your university as a whole.

2.1.1 A. Researchers: Total Number of PhD Holders (either faculty or full-time researchers)

Please provide the total number of full-time researchers, and faculty in your university for the 2018-2019 academic year who hold up to a PhD degree

2.1.1 B. Researchers: Total Number of MSc Holders (full-time researchers only)

Please provide the total number of full-time researchers in your university for the 2018-2019 academic year who hold up to a Master’s degree.

2.1.1 C. Researchers: Total Number of Post-Docs

Please provide the total number of Post-Doctoral Researchers, in your university for the 2018-2019 academic year.

2.1.1 D. Researchers: Total Number of Enrolled Master and PhD Students

Please provide the total number of full-time PhD and Masters Students that were enrolled in your university for the 2018-2019 academic year.

² Source: ‘What is Interdisciplinary Research’, National Science Foundation, (2004)
https://www.nsf.gov/od/oia/additional_resources/interdisciplinary_research/definition.jsp

2.1.1 E. Researchers: If your university has PhD Degree Programs, indicate below the (a) Program Title, and (2) Number of enrolled PhD students

Please list your university's PhD Program offerings for the 2018-2019 academic year, as well as the number of students enrolled in each of these programs for 2018-2019.

2.1.2 F. Research Support Staff: Total Number of Lab Technicians

Please provide the total number of laboratory technicians to support your university's research and innovation activities from the 2018-2019 academic year.

2.1.2 G. Research Support Staff: Total Number of Administrators and Non-Technical Staff

Please provide the total number of non-technical staff and administrators to support your university's research and innovation activities from the 2018-2019 academic year. This number can be derived from the different research support services available as mentioned in the question below.

2.1.3 H. Research-Support Office and Other Research Support

Please list the different types of research support services that were offered by your university based on the 2018-2019 academic year.

Examples of Research Support Services are not limited to, but can include the following:

- Access to external grant funding opportunities
- Clinical trial oversight
- Data management (preservation of research-related data)
- Early career development and capacity building
- Ethics oversight
- Information literacy services (use of databases and bibliographic software)
- Internal quality assurance
- Lab equipment maintenance
- Patenting & Intellectual Property services
- Postdoctoral support
- Research publication services
- Research proposal development
- Research finance and budget preparation
- Research contract support
- Research governance oversight
- Technology transfer services

2.2.1 I. List the names of your university's Research Centers, Centers of Excellence, and Research Institutes (other than academic departments)

Please list the names of your university's Research Centers, Centers of Excellence, and Research Institutes that were actively operating from the 2018-2019 academic year. Do not include the names of Academic Departments.

2.2.2 J. List the names of your university's major research facilities and labs managed by (a) academic departments or (b) Research Centers, Centers of Excellence and Research Institutes

Please list the names of any major laboratories or research facilities managed by your university's academic departments, as well as Research Centers, Centers of Excellence, and Research Institutes that were actively operating from 2018-2019.

2.3.1 K. External Funding: Total Number of Grants

Please list how many grants your university received for each of the following years: 2015, 2016, 2017, 2018.

What is an external grant? External grants are funding available for research from sources outside of your university. These can include (a) Foundations & Public Charities, (b) State & Federal Government Agencies, (c) Crowd Source Funding, and (d) Commercial, Business, and Industry.

2.3.1 L. External Funding: Total Funding (SAR Million)

Please share the total amount of grant funding your university received from external funding stakeholders for each the following years: 2015, 2016, 2017, 2018. Please convert all amounts to Saudi Riyal (SAR).

2.3.1 M. External Funding: Contractual Projects

Please list how many specified research contractual projects your university was commissioned to undertake for each of the following years: 2015, 2016, 2017, 2018.

What is a Contractual Project: A contractual project involves a research contract that legally details the obligation of 2 or more parties over the course of a research project. It typically specifies deliverables and milestones to be met, and dictates how the parties will interact with each other.

2.3.1 N. External Funding: Revenues Funding (SAR Million)

Please share the total amount of revenue your university received based on the contractual agreements your university entered into for each the following years: 2015, 2016, 2017, 2018. Please convert all amounts to Saudi Riyal (SAR).

2.3.1 O. Internal Funding: Total Number of Grants

Please list how many grants your university allocated for R&D for each of the following years: 2015, 2016, 2017, 2018.

What is an internal grant? Internal grants are funding available from within your university budget for research and development.

2.3.1 P. Internal Funding: Total Funding (SAR Million)

Please share the total amount of grant funding your university allocated internally for research and development projects and activities for each the following years: 2015, 2016, 2017, 2018. Please convert all amounts to Saudi Riyal (SAR).

Section 3: Research Accomplishments

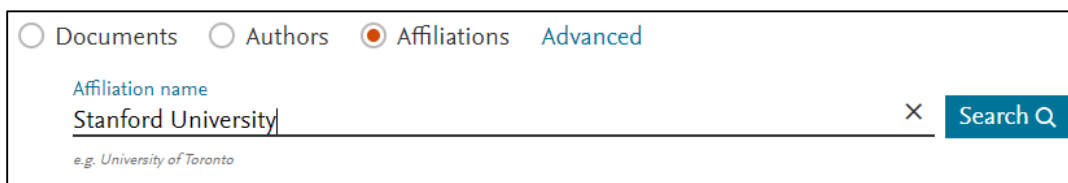
Note that this section is not disciplinary-based; the responses for Section 3 should relate to your university as a whole.

3.1.1. A. Scientific Output: Scholarly Output: Number of Publications (Articles & Reviews only)

This response requires the use of **Scopus**, available through the Saudi Digital Library.

How to retrieve this metric:

- Log into Saudi Digital Library
- Log into “Scopus” (NOT SciVal) – available in “English Databases”
- On the “Scopus” main webpage, select “Affiliations” and type In your university’s name; Click “Search”



Documents
 Authors
 Affiliations
 Advanced

Affiliation name

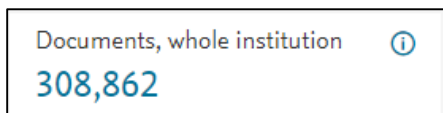
Stanford University

e.g. University of Toronto

- Select your university

	Affiliation name	Affiliation	Institution	City	Country/Territory
<input type="checkbox"/> 1	Stanford University Stanford University Stanford Univ	227989	308862	Palo Alto	United States

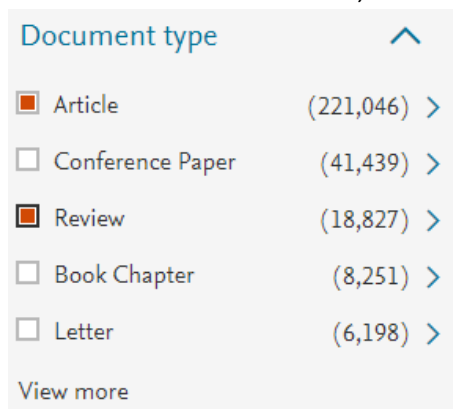
- Select the number below ‘Documents, whole institution’



Documents, whole institution ⓘ

308,862

- On the left Information Panel, select “Document Type”, and only select “Article” and “Review”



Document type ^

Article (221,046) >

Conference Paper (41,439) >

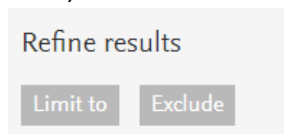
Review (18,827) >

Book Chapter (8,251) >

Letter (6,198) >

View more

- Then, click on “Limit To” on the left Information Panel where it states Refine Results



Refine results

- After clicking on “Limit To”, the data will update to only include articles and review

- Last, on the left Information Panel, select “Year” – and you will see all of the articles and reviews published by your university for each year; **The 2015, 2016, 2017, and 2018 numbers are the numbers you are looking for**

Year	
<input type="checkbox"/> 2020	(64) >
<input type="checkbox"/> 2019	(10,619) >
<input type="checkbox"/> 2018	(11,146) >
<input type="checkbox"/> 2017	(10,667) >
<input type="checkbox"/> 2016	(10,372) >
<input type="checkbox"/> 2015	(10,394) >

3.1.1 B. Scientific Output: Other Scholarly Output: No. Conference Papers, Books, & Book Reviews

This response requires the use of Scopus, available through the Saudi Digital Library.

How to retrieve this metric:

- Just as in the metric 3.1.1 A above, log into Scopus and search for your university
- For your university profile, select the number below ‘Documents, whole institution’

Documents, whole institution	①
308,862	

- On the left Information Panel, select “Document Type”, and only select everything EXCEPT for “article” and “review”

Document type	
<input type="checkbox"/> Article	(221,046) >
<input checked="" type="checkbox"/> Conference Paper	(41,439) >
<input type="checkbox"/> Review	(18,827) >
<input checked="" type="checkbox"/> Book Chapter	(8,251) >
<input checked="" type="checkbox"/> Letter	(6,198) >
<input checked="" type="checkbox"/> Editorial	(4,605) >
<input checked="" type="checkbox"/> Note	(4,493) >
<input checked="" type="checkbox"/> Short Survey	(1,899) >
<input checked="" type="checkbox"/> Book	(958) >
<input checked="" type="checkbox"/> Erratum	(834) >

- Then, click on “Limit To” on the left Information Panel where it states Refine Results

Refine results
<input type="button" value="Limit to"/> <input type="button" value="Exclude"/>

- After clicking on “Limit To”, the data will update to all publications EXCEPT for Articles and Reviews

- Last, on the left Information Panel, select “Year” – and you will see all of the Other publications (non-articles, non-reviews) published by your university for each year; **The 2015, 2016, 2017, and 2018 numbers are the numbers you are looking for**

Year	
<input type="checkbox"/> 2020	(12) >
<input type="checkbox"/> 2019	(2,244) >
<input type="checkbox"/> 2018	(3,367) >
<input type="checkbox"/> 2017	(3,495) >
<input type="checkbox"/> 2016	(3,282) >
<input type="checkbox"/> 2015	(3,237) >

3.1.1 C. Scientific Output: Number of Non-Scopus Publications (Articles & Reviews)

Please provide any additional publications (Articles & Reviews only) your university produced from 2015 to 2018. This may include publications in journals not indexed in Scopus, and this may include publications published in Arabic.

3.1.1 D. University Self-Journals: List the names of the Journals your university owns and publishes (if applicable)

Please provide the names of any Journals that your university owned from 2015 to 2018. Please refer to Question 1.2 K for further instructions on how to obtain this information.

3.1.2 E. Innovation / Commercialization Output: Number of Issued Patents through SAIP

**Please note that this information will be provided to you by email after the Workshop*

3.1.2 F. Innovation / Commercialization Output: Number of Published PCT Applications

**Please note that this information will be provided to you by email after the Workshop*

3.1.3 G. Innovation / Commercialization Output: Number of Issued Patent Families Applications Filed (simple families)

**Please note that this information will be provided to you by email after the Workshop*

3.1.3 H. Entrepreneurship Output: Number of university students & faculty involved in projects for startup formation and incubated businesses

Please share approximately, how many students and faculty were involved in existing entrepreneurship activities within your university for the years 2015, 2016, 2017 and 2018. Activities are limited to (a) start-up formation, and (b) incubated businesses.

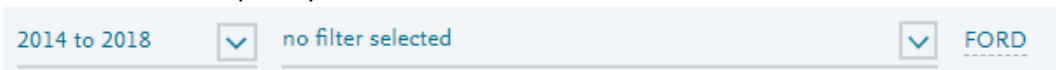
3.1.3 I. Entrepreneurship Output: Number of projects for startup formation and incubated businesses (resulting from patented or non-patented university research outcomes)

Please share how many projects took place within your university for (a) start-up formation, and (b) incubated businesses for the years 2015, 2016, 2017 and 2018. These projects and associated start-up formations can result from patented or non-patented research outcomes.

3.2.1 J. Scientific Impact: Publications in Top Journal Percentiles: Publications in top 10% of journals This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

- Log into SciVal
- Select your university's name [please see the instructions for 1.2 G in these Guidelines if you do not know how to do this]
- Make sure the date range is still "2014 to 2018"
- Make sure the Disciplinary classification is reset to "no filter selected"



- Click on "Published"



- Scroll down and find "Publications in Top Journal Percentiles"



- Click on "Export"; export the data; **The 2015, 2016, 2017, and 2018 numbers for the 10% are the numbers you are looking for**

3.2.1 K. Scientific Impact: Proportion of Publications in Top Journal Percentiles: Publications in top 10% of journals

This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

- Use the same dataset you exported in 3.2.1 J
- **The 2015, 2016, 2017, and 2018 numbers for the "10% of Scopus Sources (%)" are the numbers you are looking for**

3.2.1 L. Scientific Impact: Publications in Top Citation Percentiles: Publications in top 10% of most cited publications worldwide

This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

- Use the same webpage you used for 3.2.1 J & K metrics in “Published”



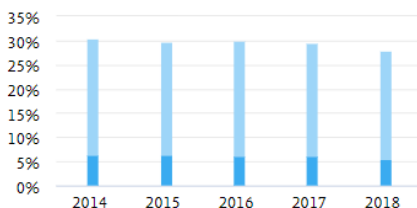
- Scroll down and find “Outputs in Top Citation Percentiles”

Outputs in Top Citation Percentiles ⚙️

+ Add to Reporting Export ▾

Share of publications at Stanford University that are among the most cited publications worldwide

Show as field-weighted



20,288 (29.5%)

number of publications in the top 10% most cited publications worldwide

[View list of publications](#)

- Click on “Export”; export the data; **The 2015, 2016, 2017, and 2018 numbers for the 10% are the numbers you are looking for**

3.2.1 M. Scientific Impact: Proportion of Publications in Top Citation Percentiles: Publications in top 10% of most cited publications

This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

- Use the same dataset you exported in 3.2.1 L
- The 2015, 2016, 2017, and 2018 numbers for the “10% most cited (%)” are the numbers you are looking for**

3.2.1 N. Scientific Impact: Citation Count (Articles & Reviews only)

**Please note that this information will be provided to you by email after the Workshop*

3.2.1 O. Scientific Impact: Citations per Publication

**Please note that this information will be provided to you by email after the Workshop*

3.2.2 P. Innovation / Commercialization Impact: Number of Licensing/Option Deals

Please provide the number of licensing and options deals your university undertook for the years 2015, 2016, 2017 and 2018.

What is a licensing deal? A licensing deal is an agreement that transfers from the licensor to the licensee the right to use the intellectual property/patent in the technology and to make, use and sell products embodying the technology, in a specified manner for a specified time in a specified region.

What is an option deal? An option deal is an agreement that grants for an entity to use the intellectual property/patent for non-commercial purposes and a time-limited right to negotiate a commercial license to the intellectual property/patent.

3.2.2 Q. Innovation / Commercialization Impact: Number of Patents Involved in all Licensing/Option Deals

Please provide the number of patents your university used to involve in licensing and options deals.

Note that a single license or option deal may involve one or more than one intellectual property/patent depending on the number of intellectual properties/patents in the technology.

3.2.3 R. Entrepreneurship Impact: Number of Startups that Resulted from Licensing/Option Deals (Technology-Transfer)

Please provide the number of startups that resulted from licensing or options deals results based on your universities R&D for the years 2015, 2016, 2017, and 2018.

3.2.3 S. Entrepreneurship Impact: Number of Startups that Resulted from Non-Patented Research Results (Knowledge-Transfer)

Please provide the number of startups that resulted from non-patented research results based on your universities R&D for the years 2015, 2016, 2017, and 2018.

3.2.4 T. Economic – Social Impact: Citing-Patents Count: number patents citing publications published at your university

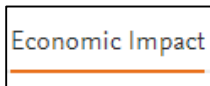
This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

- Log into SciVal
- Select your university's name [please see the instructions for 1.2 G in these Guidelines if you do not know how to do this]
- Make sure the date range is still "2014 to 2018"
- Make sure the Disciplinary classification is reset to "no filter selected"



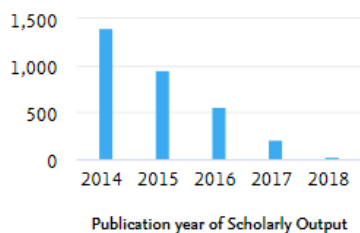
- Click on "Economic Impact"



- Scroll down and find "Citing-Patents Count"

Citing-Patents Count

+ Add to Reporting



2,887

count of patents citing the Scholarly Output published at Stanford University

[View list of patents](#)

[Learn more about this metric](#)

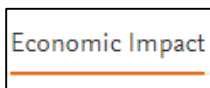
- (a) Hover your mouse on top of each bar for 2015, 2016, 2017, and 2018 to get the total number; OR (b) Export the data and retrieve the totals from the dataset

3.2.4 U. Economic – Social Impact: Patent-Cited Scholarly Output: number of publications from your university that have been cited in patents

This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

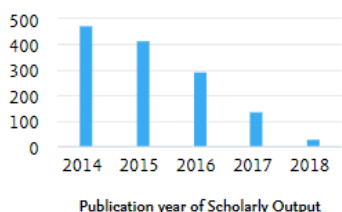
- Use the same webpage you used for 3.2.4 T metrics in “Economic Impact”



- Scroll down and find “Patent-Cited Scholarly Output”

Patent-Cited Scholarly Output

+ Add to Reporting



1,347

count of Scholarly Outputs at Stanford University that have been cited in patents

[View list of publications](#)

[Learn more about this metric](#)

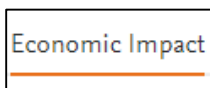
- (a) Hover your mouse on top of each bar for 2015, 2016, 2017, and 2018 to get the total number; OR (b) Export the data and retrieve the totals from the dataset

3.2.4 V. Economic – Social Impact: Patent-Citation Count: number of patent citations your university received

This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

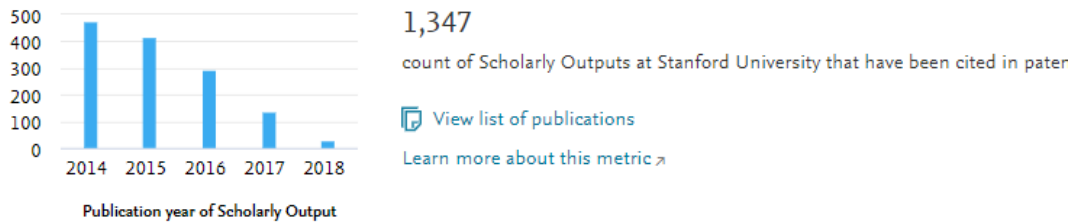
- Use the same webpage you used for 3.2.4 T metrics in “Economic Impact”



- Scroll down and find “Patent-Citations Count”

Patent-Cited Scholarly Output

+ Add to Reporting



- (a) Hover your mouse on top of each bar for 2015, 2016, 2017, and 2018 to get the total number; OR (b) Export the data and retrieve the totals from the dataset

3.2.4 W. Economic – Social Impact: List your contribution to any major industrial problems/challenges (if applicable)

Please share any contributions your university has made through research and innovation activities towards any industry-related challenges between 2015 and 2018. This can be at the local, national, or international level.

3.2.4 X. Economic – Social Impact: List your contribution to any national or regional social challenges (if applicable)

Please share any contributions your university has made through research and innovation activities towards any societal challenges between 2015 and 2018. This can be at the local, national, or international level.

3.2.4 Y. Economic – Social Impact: List your contribution to any national or regional economic challenges (if applicable)

Please share any contributions your university has made through research and innovation activities towards any economic challenges between 2015 and 2018. This can be at the local, national, or international level.

3.2.5. Z. International Collaboration Field-Weighted Citation Impact (2014-2018)

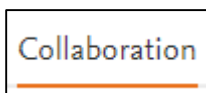
This response requires the use of SciVal, available through the Saudi Digital Library.

How to retrieve this metric:

- Log into SciVal
- Select your university's name [please see the instructions for 1.2 G in these Guidelines if you do not know how to do this]
- Make sure the date range is still "2014 to 2018"
- Make sure the Disciplinary classification is reset to "no filter selected"

2014 to 2018 no filter selected FORD

- Click on "Collaboration"



- Change the metric titled "Citations" to "Field-Weighted Citation Impact"

Citations  Field-Weighted Citation Im...

- The “Field Weighted Citation Impact” within ‘International Collaboration’ is the number you are looking for

Metric	Scholarly Output	Field-Weighted Citation Im... <input type="button" value="v"/>
■ International collaboration	40.8%	28,095
		3.33

3.2.5. AA. National Collaboration Field-Weighted Citation Impact (2014-2018)

This response requires the use of **SciVal**, available through the Saudi Digital Library.

How to retrieve this metric:

- Use the same webpage you used for the 3.2.5 Z metrics above
- The “Field Weighted Citation Impact” within ‘National Collaboration’ is the number you are looking for

■ Only national collaboration	35.6%	24,487	2.40
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3.2.5 BB. Impactful Collaborations / Strategic Partnerships (International & National)

Please list any major collaborations or strategic partnerships your university had from 2015 to 2018. This can be at the local, national, or international level; and this can involve both private and public sector entities (e.g., research institutions, universities, Ministries, industry players).

Note that your university will be judged not on how many collaborations or partnerships it has; rather, you will be judged on (a) the vitality and (b) the sustainability of your collaborations and partnerships.

3.2.6 CC. List key official Conferences or Symposia (if any) your university organized

Please list any major Conferences or Symposia your university organized between 2015 to 2018.

3.2.6 DD. List key rewards your university (or faculty/researchers) received

Please list any major rewards your university’s faculty, researchers, or your university as a whole received between 2015 and 2018.

3.2.6 EE. List editorships your university’s faculty/researchers held

Please list any major editorships your university’s faculty and/or researchers held while working/enrolled at your university between 2015 and 2018.

3.2.6 FF. Other Research Impact

If applicable, this question provides your university the space to share more information regarding your university’s research and innovation impact over the years 2015 to 2018.

Part 2: The Plan

The core objectives in developing ‘The Plan’ section of the University Research & Innovation Strategy are:

- **Strategic Direction:** To provide a sense of direction in where to focus your university’s R&D activities and associated funding
- **KSA National Priorities:** To align your university’s internal R&D capabilities to broader KSA national and regional priorities
- **R&D Institutional Alignment:** To establish internal consistency across all departments and researchers within your university in contributing to the same R&D goals

In terms of allocating institutional funding to your university through the Ministry of Education from 2020 to 2022, ‘The Plan’ section of this Strategy Template will be used to assess the vitality and the sustainability in how your university plans to allocate institutional funding.

For example, your university’s proposed goals, activities, and targets should not only (a) reflect your university’s internal capabilities and research capacity that you outlined in Part 1 of this Strategy Template, but it should (b) demonstrate your university’s awareness of broader Research and Innovation goals across the Kingdom, and internationally that your university can contribute to.

Section 4: The Plan

4.1 Overarching R&D Goals

Please provide a maximum of 4 high-level overarching goals that will drive the strategic direction for your university’s R&D for the next 5 years (2020-2024).

What makes a Goal, a Goal?:

- Goals support the achievement of a larger purpose or strategy
- Goals are what you want to achieve (rather than how you want to achieve it)
- Goals may not be measurable and have longer time frames
- Goals are aligned within and across functions and departments to ensure everyone is contributing to a higher purpose

4.2 Research Priorities and Associated Activities

Please share a select number of “Research Priorities” or “Themes” your university would like to concentrate its research, development, and innovation activities on in relation to:

- The allocation of Ministry of Education institutional funding from 2020-2022, as well as
- Your broader University Research & Innovation Strategy over the period of 2020-2024

What is a “Research Priority?”

- An area, be it within the scope of research, development, or innovation your university would like to focus on given your existing “Disciplinary Strengths” from Part 1, internal capabilities and external KSA opportunities for R&D

- Note that Research Priorities can be shaped in terms of a discipline, type of R&D [basic vs. applied], economic, social, or industrial challenges, or any other factor the university deems worthy of focus that falls within the R&D activity limits of the Deputyship for Research & Innovation (DRI)

While the Deputyship does not enforce a maximum or minimum number of 'Research Priorities' – the Deputyship as well as the Review Committee expects universities to provide an appropriate number of 'Research Priorities' according to their existing capacity for research.

Please note that within the PowerPoint version of the Strategy Template, you will need to duplicate the PowerPoint slides for each 'Research Priority' you have. However, when it is time to upload your 'Research Priorities' onto the official online Portal, there will be an online option to increase the number of 'Research Priorities' you want to share.

4.2 Please provide a description of your Research Priority

Please provide (a) the name of your Research Priority, and (b) a sufficient description of what this Research Priority is. If this Research Priority is linked to your 'Overarching Goals' from 4.1, please mention how.

Note that the Review Committee evaluating your Strategy is looking for quality over quantity, and within quality, they seek depth of information. Please share enough information for the Committee to fully understand the importance of your selected Research Priorities.

4.2 Describe how the priority is aligned to broader KSA priorities (economic, societal, industrial, developmental) (provide evidence whenever possible)

Similar to the instructions for 4.2 above; the Review Committee will look for depth in this description. Please share enough information for the Committee to fully understand the (a) feasibility for your university to contribute to a broader KSA priority area, as well as (b) the appropriateness in selecting the KSA priority you mention in this response.

4.2 Describe how the priority is aligned to broader, international R&D trends (if applicable)

Please follow the same instructions as the above 2 questions, if applicable.

4.2 Core Activities: Research Priority Activity Title & Brief Description; Proposed Outcome; Involved Stakeholders; Other Considerations

- **Research Priority Activity Title & Brief Description:**
 - Please note that when the Review Committee assesses each 'Research Priority Activity' you provide, they will assume that the 1st Activity you share has the #1 Priority, while your last – Priority Activity you share will have lesser levels of prioritization than your 1st Activity
 - Per 'Research Priority Activity' please provide enough information for the Review Committee to understand what your university aims to accomplish between 2020-2022 using institutional funding
- **Proposed Outcome:**

- What application or problem will each of your proposed ‘Research Priority Activities’ address? How would you define your activity as being successfully completed?
- **Involved Stakeholders:**
 - Which stakeholders and partners outside of your university, if any, will contribute to each of your proposed ‘Research Priority Activities’?
 - Stakeholders can be at the local, national, or international level; and this can involve both private and public sector entities (e.g., research institutions, universities, Ministries, industry players)
- **Other Considerations:**
 - **Duration:** Please share the proposed duration of your ‘Research Priority Activity’. Note that your Research Priority Activities must take place between 2020 and 2022
 - **Expected Budget:** Please share the expected budget of your ‘Research Priority Activity’. Note that your institutional funding must be spent by your university by 2022, so please keep in mind the feasibility in allocating appropriate funding between 2020-2022
- **Activity Owner(s)**
 - List which university Department(s) and/or Research Center(s) would be involved in successfully completing your proposed ‘Research Priority Activity’
- **Resources Required**
 - List what existing facilities within your university will be used to undertake your proposed ‘Research Priority Activity’, as well as any equipment, software, or consumables that will be required
 - If part of your ‘Expected Budget’ is to enhance your university required resources, feel free to elaborate on what specific resources will be required
- **Other Considerations**
 - Highlight any other important considerations for your proposed Research Priority Activity, such as IT Support, Researcher and Researcher Support requirements
 - If part of your ‘Expected Budget’ is to enhance your university’s required resources in terms of manpower (researchers, research-support staff), feel free to elaborate on what elements will be required

4.3.1 Research Targets – Research Capabilities: A. Total Number of Grants; B. Total Funding; C. Number of Post-Docs

Based on the information you provided in Part 1, please provide projections for the years 2020, 2021, 2022, and 2023 based on Metrics A, B, and C. Note that your projections are projections for your entire university (NOT per Research Priority area).

4.3.1 D. Research Targets – Research Capabilities: Inclusivity - Please list any targets to increase women participation and access to R&D opportunities

As your university plans to allocate its institutional funding from 2020 to 2022, what considerations will your university give to increase women participation and access to R&D opportunities.

Please list any associated targets or measures you plan to undertake in this area (i.e., increasing women’s participation in leadership positions; develop gender equality quotas or measures; provide training to enable women to compete at all levels and in all scientific domains; allow daytime access to

laboratories and research spaces; provide mentoring and role models; place increased efforts to retain women undergraduate/Master-level students within the university system).

4.3.1 E. Research Targets – Research Capabilities: Inclusivity - Please list any targets to increase student participation and interest in R&D opportunities (Undergraduates, Masters)

As your university plans to allocate its institutional funding from 2020 to 2022, what considerations will your university give to attract students to a career in research and academia.

Please list any associated targets or measures you plan to undertake in this area (i.e., identifying and awarding graduation projects with potential for additional research/commercialization; providing increased opportunities such as training and internships within the research and innovation environments; provide mentoring and role models to students with high potential; address language and literacy needs that may serve as a barrier in conducting R&D).

4.3.2 Outputs– F. Scholarly Output: Number of Publications (Articles & Reviews only); G. Other Scholarly Output: No. Conference Papers, Books, Book Reviews, etc.; H. Number of Patents Filed; I. Number of Patents Issued

Based on the information you provided in Part 1, please provide projections for the years 2020, 2021, 2022, and 2023. Note that your projections are projections for your entire university (NOT per Research Priority area).

4.3.3 Impact – J. Citation Count (Articles & Reviews only); K. Publications in Top Journal Percentiles: Publications in top 10% of journals; L. Publications in Top Citation Percentiles: Publications in top 10% of most cited publications worldwide; M. Number of Licensing/Option Deals; N. Number of Startups that Resulted from Licensing/Option Deals; O. Patent-Cited Scholarly Output: number of publications from your university that have been cited in patents

Based on the information you provided in Part 1, please provide projections for the years 2020, 2021, 2022, and 2023.

4.3.4 Economic , Societal, Development, Other Impacts

If applicable, this question provides your university the space to share more information regarding your university's research and innovation plans for the years 2020-2022.