



جامعة الملك فهد للبترول والمعادن
King Fahd University of Petroleum & Minerals

**Deanship of Research
Science & Technology Unit**

KACST Programs for Supporting Research in Saudi Universities



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Director, Science & Technology Unit

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Research Programs

1

Graduate Students Grant

2

Basic Research Grant

3

Innovative Research Grant

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Industrial Innovation Centers' Grant

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Graduate Students' Grant

Approved research areas around 28 directions in Sciences & engineering, with over 250 subtopics according to OECD ... (examples):

Fields	Scientific Areas	Topics
1. Natural Sciences	1.1 Math	Pure mathematics; Applied mathematics; Statistics and probability; etc.
	1.2 Computer and Information Sciences	Computer sciences; Information science and bioinformatics; etc.
	1.3 Physics Sciences	Atomic; molecular; and chemical physics; Particles and fields physics; etc.
	1.4 Chemistry Sciences	Organic chemistry; Inorganic and nuclear chemistry; etc.
	1.5 Geology Sciences and its Branches	Geosciences, multidisciplinary; Mineralogy; Paleontology; etc.



Graduate Students' Grant

Cont. (examples)

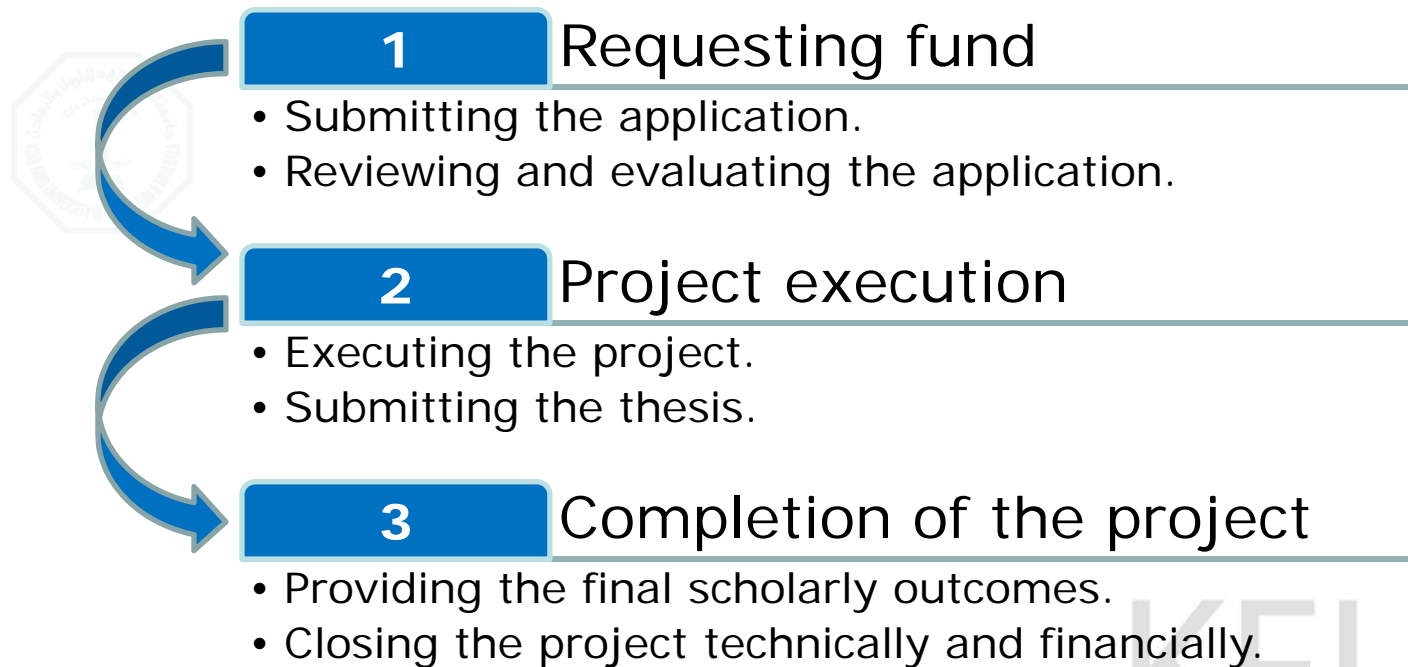
Fields	Scientific Areas	Topics
1. Natural Sciences	1.6 Biology Sciences (3 medical and 3 agriculture)	Cell biology, microbiology; Virology; Biochemistry; etc.
	1.7 Other Natural Sciences	
2. Engineering and Technology	2.1 Civil Engineering	Civil engineering; Architecture engineering; Construction engineering; etc.
	2.2 Electrical Engineering, Electronics Engineering, Information Engineering	Electrical and electronic engineering, Robotics and automatic control; etc.
	2.3 Mechanical Engineering	Mechanical engineering; Applied mechanics; Thermodynamics; etc.



Graduate Students' Grant

Program Methodology:

The projects of this program pass through the following 3 main stages:





Graduate Students' Grant

Program Methodology:

Requesting fund: general information

Aim of the process	Ensuring the fulfillment of grant conditions	Responsibility on process	KACST
In-charge parties	STU, researcher (students), and KACST/NSTIP	Application templates	Submitting a fully filled application form
Portal criteria	<ul style="list-style-type: none">• The applicant should be a student at one of the Saudi learning establishments• The applicant should be working on achieving his Master or Doctorate thesis		
Guidelines and restrictions	<ul style="list-style-type: none">• Attaching the filled application form with complete information• Attaching a memo from the Graduate Studies in the University on its approval on the proposed research proposal to achieve the degree• Attaching an official document that the student has finished 50 % of his courses• The max. grant for a M.Sc. student is SR 70,000 and SR 170,000 for the Ph.D. student.		



Graduate Students' Grant

Program Methodology:

Project execution: general information

Aim of the process	Ensuring a successful progress	Responsibility on process	KACST
In-charge parties	STU, researcher (students), and KACST/NSTIP		
Portal criteria	<ul style="list-style-type: none">• Notification on the start of the project• Submitting the first year progress report for the Ph.D. students		
Guidelines and restrictions	<ul style="list-style-type: none">• It is compulsory to submit a report which summarizes the achievements over the first year of the project (Ph.D.)• The M.Sc. student is granted a max. amount of SR 70,000 (SR 30,000 for equipment and trips, SR 30,000 for scientific activities and outcomes, and SR 10,000 for increasing the scientific activities and outcomes)• The Ph.D. student is granted a max. amount of SR 170,000 (SR 45,000 for equipment and trips (yearly), SR 80,000 for scientific activities and outcomes (2 years), for every year SR 35,000 for activities and outcomes, and SR 10,000 for exceeding minimum requirements)		



Graduate Students' Grant

Program Methodology:

Project completion: general information

Aim of the process	Evaluating and closing the project	Responsibility on process	KACST
In-charge parties	STU, researcher (students), and KACST/NSTIP		
Portal criteria	<ul style="list-style-type: none"> • Submission and acceptance of the thesis (with project acknowledgement) • Submission and acceptance of the financial reports • Submitting the scientific outcomes of the project (papers, patents, etc.) 		
Guidelines and restrictions	<ul style="list-style-type: none"> • The M.Sc. student is granted a max. amount of SR 70,000 (SR 30,000 for equipment and trips and SR 40,000 for scientific activities and outcomes) • The Ph.D. student is granted a max. amount of SR 170,000 (SR 45,000 for equipment and trips (yearly), SR 80,000 for scientific activities and outcomes (2 years)) • The minimum requirements for scientific outcomes are 5 points for the Ph.D. student and 3 points for the M.Sc. student distributed as follows: 		



Graduate Students' Grant

Program Methodology:

Project completion: general information

Cont.

Guidelines and restrictions

- An issued patent (P5+1) = 4 points
- A published journal paper = 3 points
- A conference papers presented in conferences and workshops (listed on scimagojr website) = 2 points
- Participations in KACST scientific occasions = 1 point
- Assigning a cash reward for the addition scientific outcomes on a relative basis when the min. requirement is exceeded

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Basic Research Grant

This program aims to accomplish the following objectives:

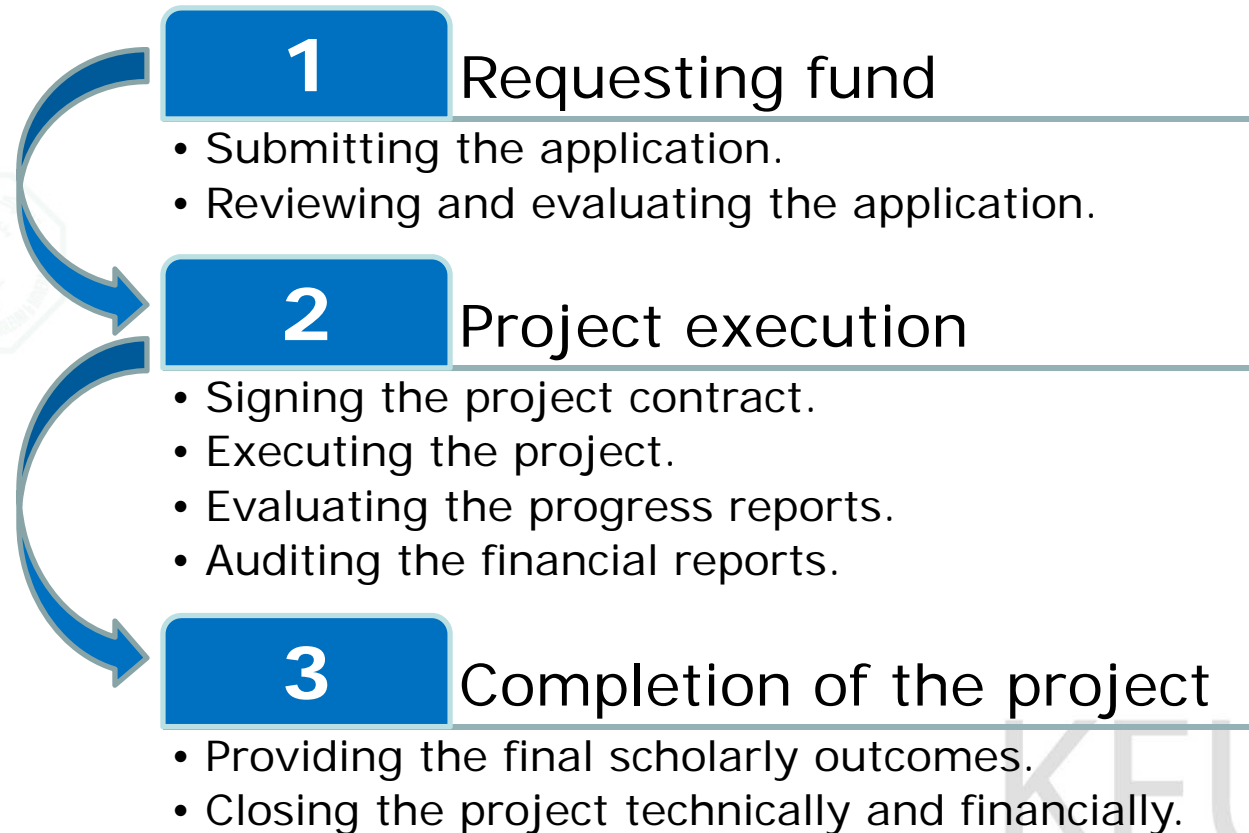
- 1 Executing original basic researches of high quality
- 2 Contributing in coming up with discoveries in science and technology
- 3 Playing a role in the scientific pillar necessary for promoting the scientific research environment
- 4 Achieving the Kingdom's vision in building up a scientific society and scientific-based economy
- 5 Supporting the Universities in developing a research strategy and play a bigger role in the national change program



Basic Research Grant

Program Methodology:

The 3 main stages in executing these projects are:





Basic Research Grant

Program Methodology: Requesting fund: general information

Aim of the process	Receiving the proposals, evaluating & approving them	Responsibility on process	KACST/NSTIP (currently)
In-charge parties	STU, principle investigator, KACST/NSTIP, and reviewers	Application templates	Submitting the proposal (electronically)
Portal criteria	<ul style="list-style-type: none"> • Completeness of the application requirements • Adhering to program regulations (administrative, financial, and technical) • Reviewing results (highly recommended, recommended, and not recommended) • The nonexistence of any previous comments on the researcher 		
Guidelines and restrictions	<ul style="list-style-type: none"> • Applying for this grant is done through the online portal within the announced dates • Adhering to the regulations/policies of this program (administrative, financial, and technical) • Ensuring that the proposed budget is fulfilling with the regulations on the budget of this type of projects • Max. budget for each project is SR 600K + 150K (total 750,000 for 2 years) 		



Basic Research Grant

Program Methodology:

Project completion: general information

Aim of the process	Evaluating and closing the project after doing the research	Responsibility on process	KACST/NSTIP (currently)
In-charge parties	STU, project team, KACST/NSTIP, and reviewers		
Portal criteria	<ul style="list-style-type: none"> • Evaluating and approving the final report • Auditing the financial reports and approving them • Achieving the min. requirement of outcomes (papers, patents, etc.) • Ensuring the acknowledgement of the project in the outcomes 		
Guidelines and restrictions	<ul style="list-style-type: none"> • The min. requirement for scientific outcomes is (10) points as follows: <ul style="list-style-type: none"> - Issued patents (P5+1) = 4 points - A published journal paper = 3 points - A conference papers presented in conferences and workshops (listed on scimagojr website) = 2 points - Participations in KACST scientific occasions = 1 point • Assigning a cash reward for the addition scientific outcomes on a relative basis when the min. requirement is exceeded 		



Basic Research Grant

Evaluation criterion of proposals:

- Fulfillment/matching of proposals with *the Vision 2030*.
- Novelty of scientific outcomes and their contribution in improving the knowledge in the technology field.
- Research methodology and the possibility for achieving its objectives.
- Adhering to KACST's ethics.
- The possibility for achieving the goals/priorities as announced by KACST and the National Transformation Program (NTP 2020).

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Innovative Research Grant

This program aims to accomplish the following objectives:

- 1 **Motivating innovation in technology** in the research entities and private sectors
- 2 **Finding solutions** for various strategic challenges related to research and development
- 3 Establishing and developing the **small and medium companies** which work in technology and can create industrial value
- 4 Providing and supporting the **advanced technology qualifications** in both the public and private sectors

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Innovative Research Grant

The program achieves its goals through 3 stages of support and funding:

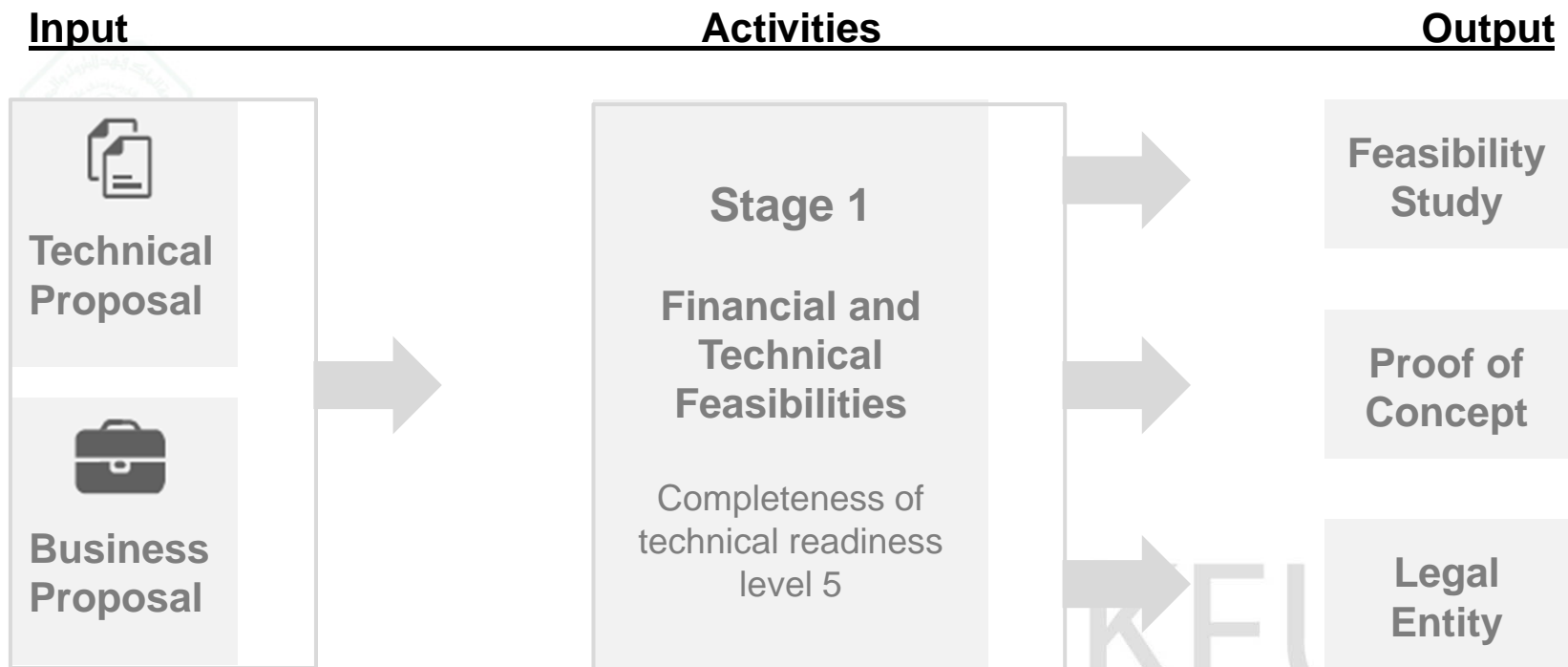




Innovative Research Grant

Stage 1 aims to performing Translational Research which includes: building initial/simple models, feasibility, and statutory body for the establishment.

Outcomes: Translational Research, which includes: studying the financial and technical feasibilities and proving the concept.

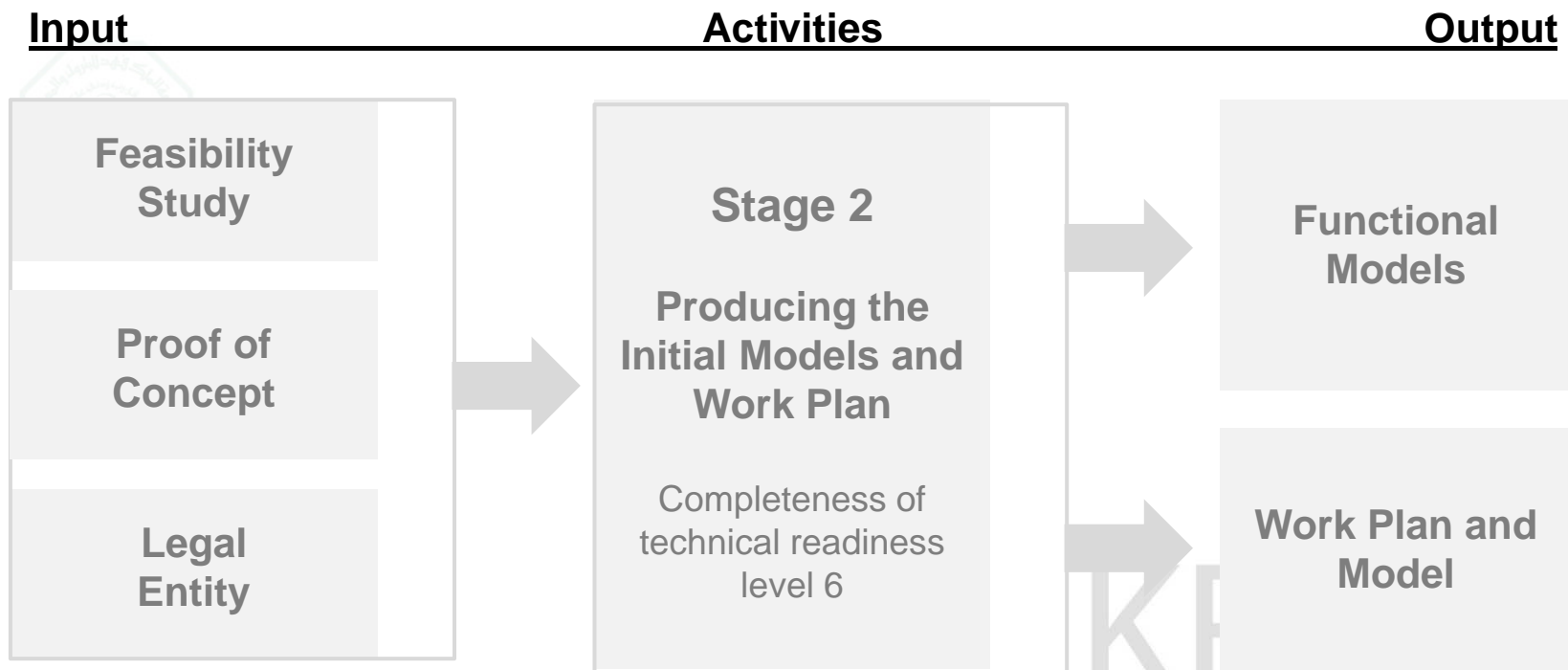




Innovative Research Grant

Stage 2 is expected to result in functional initial models and a work plan for the establishment.

Outcomes: Functional initial models and a work plan.

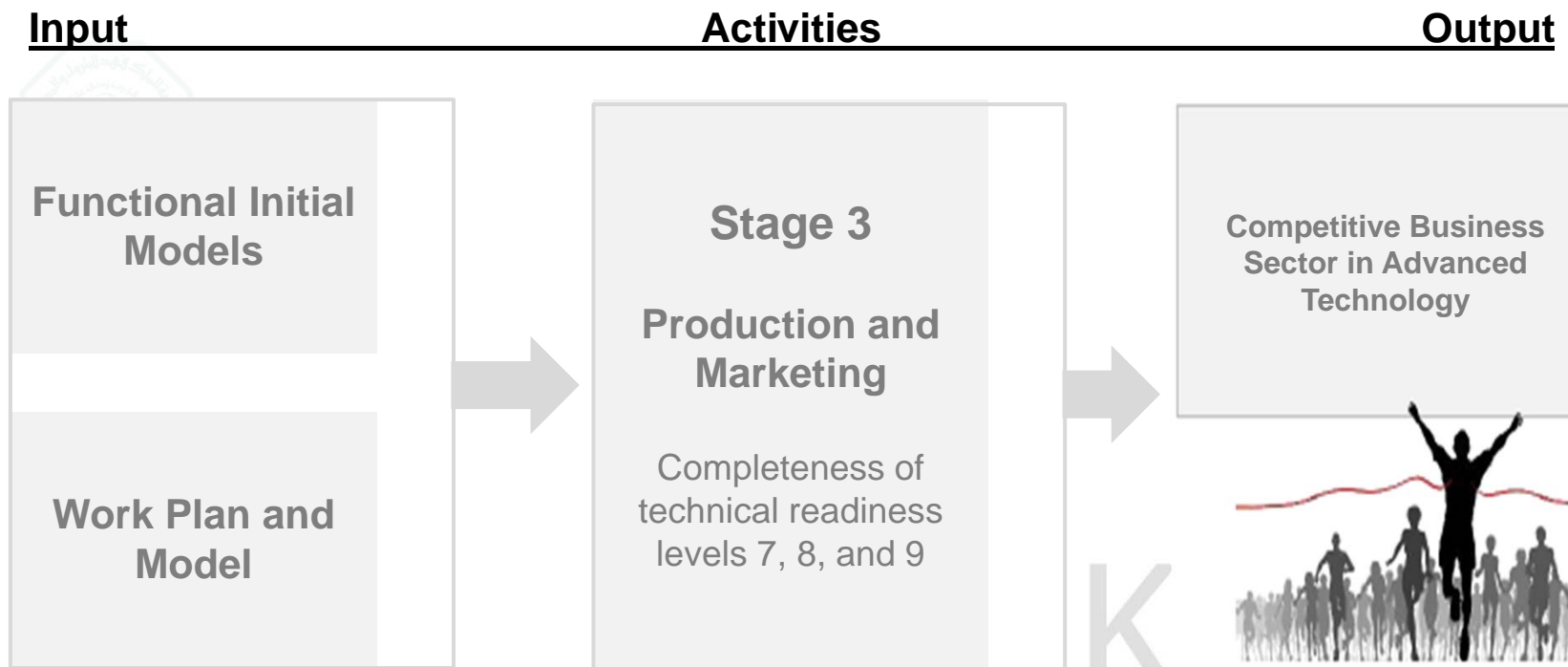




Innovative Research Grant

Stage 3 intends to develop national companies which contribute in building a competitive sector in the area of advanced technology.

Outcomes: Competitive business sector in the area of advanced technology.





Innovative Research Grant

This program will help in involving the governmental and private sides in developing the sector of SME's through the technology development.

Water		Agriculture & Food Industries	
Energy		Building & Construction	
Petroleum & Gas		Electronics, Information and Communication Technology	
Petrochemical & Materials		Environment	
Medicine & Health		Defense and Security	
Aerospace		Transportation	



Innovative Research Grant

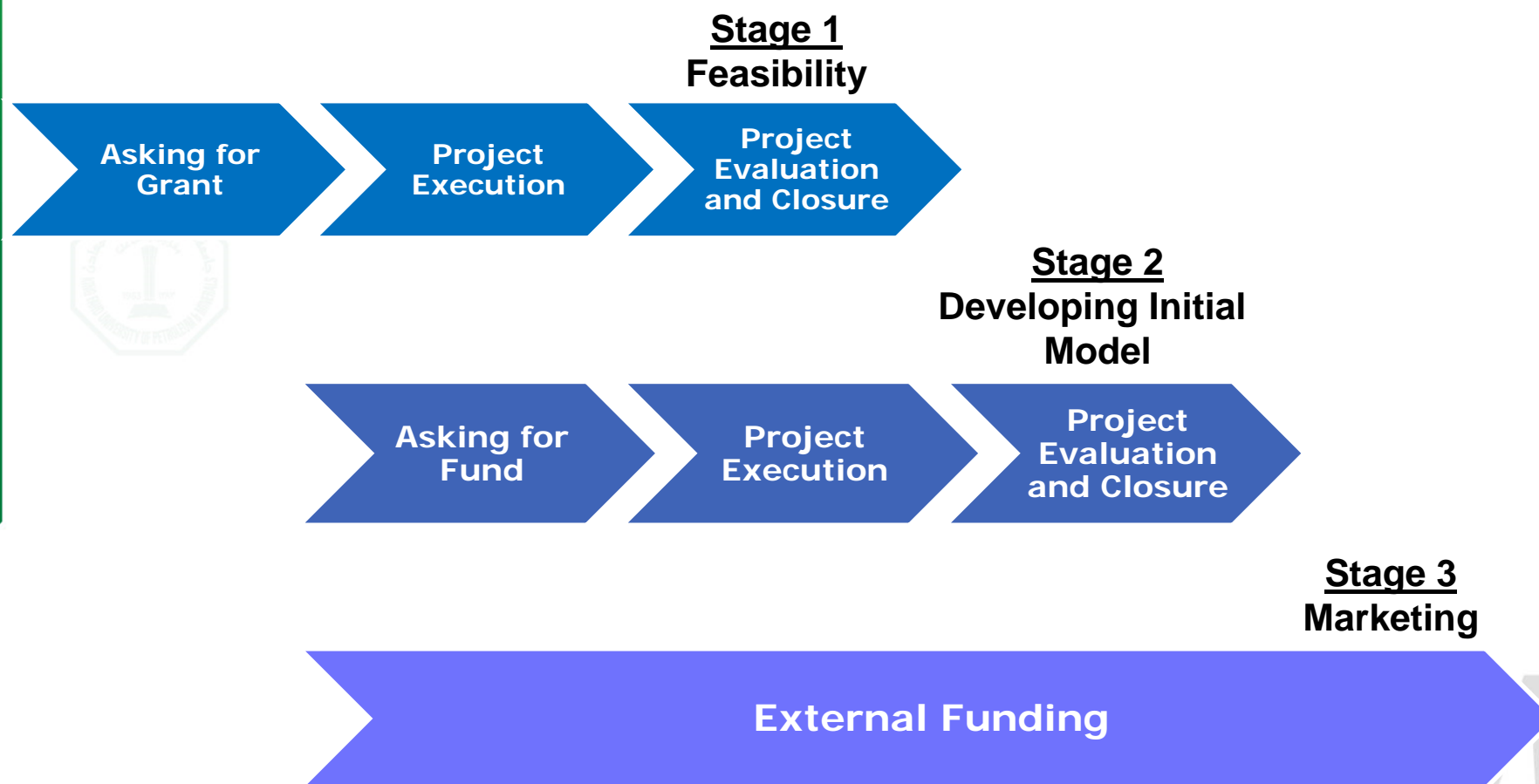
Program stages and phases:

	Stage 1 Feasibility	Stage 2 Initial Model	Stage 3 Production & Marketing
Support Type	<u>Financial</u> MAARIFAH Funding (STU)	<u>Financial</u> MAARIFAH Funding (STU)	<u>Open</u> (SIDF, HRDF, MODON, etc.)
Duration	12 months (max.)	24 months (max.)	May reach several years
Technology Readiness Level (TRL)	TRL3 TRL4 TRL5 Research & Development	TRL6 Producing Initial Models, Work Plan	TRL7 TRL8 TRL9 Improving the Products and Marketing them



Innovative Research Grant

Program stages and phases (timeline):





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Industrial Innovation Centers' Grant

This program aims to find connecting circles between the universities and private sector establishments to support the localization efforts through technical development. The main objectives of the program are:

1. Finding the solutions for the problems faced by the industry in the Kingdom
2. Connecting the researchers with the industry to focus the research and development efforts for promoting the local content
3. Encouraging and facilitating the enrolment of the industrial sector in the research and development partnerships
4. Strengthening the scientific research in the Kingdom that is related to industry

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Industrial Innovation Centers' Grant

The approved strategic fields/areas which address important strategic issues in the Kingdom:

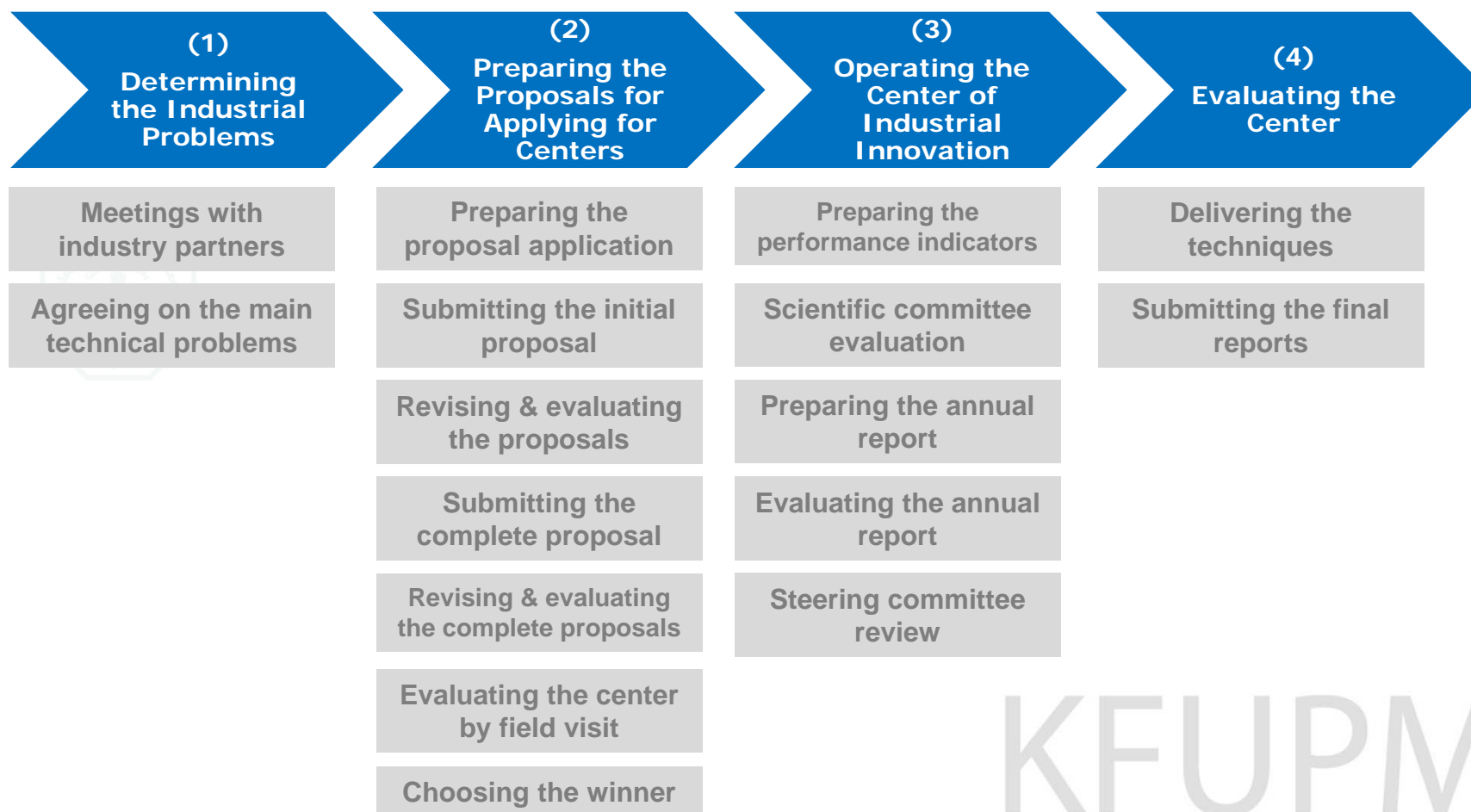
Water		Agriculture & Food Industries	
Energy		Building & Construction	
Petroleum & Gas		Electronics, Information and Communication Technology	
Petrochemical & Materials		Environment	
Medicine & Health		Defense and Security	
Aerospace		Transportation	

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Industrial Innovation Centers' Grant

The program 4 main stages:



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Thanks ...

Open discussion



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