

National Strategy for Higher Education and Scientific Research 2030: National Policy for Sustainable Innovation

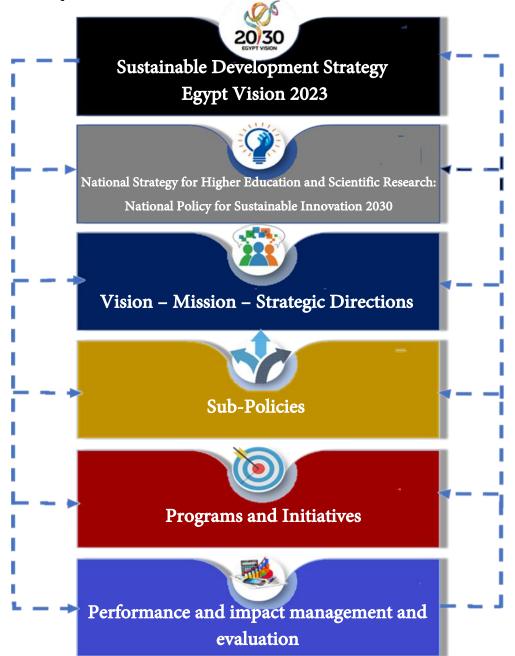






Policy Structure









Policy Vision, Mission, and Strategic Directions





/ision

Transforming Egypt to Sustainable Innovative Knowledge Society

Mission

Employing innovation to create value and enhance sustainability in all production and service sectors, enhancing quality of life, inclusive growth, and Egypt's competitiveness regionally and globally

Develop domestic and foreign financing alternatives to support innovation and recent trends as green innovation

Developing infrastructure and support systems to promote innovation in the production sectors and society

Developing research and innovation human resources

Updating the mission of HEIs to enhance their role as a key driver of the innovation and sustainable development

Developing the Higher Education and Scientific Research System in Egypt

Developing an integrated system for the governance of innovation policy, and for performance and developmental impact evaluation of the National Innovation System

Provide appropriate frameworks for the governance and deployment of emerging technologies in the economy and society

Promoting scientific culture and a culture of innovation and entrepreneurship in society in cooperation with the media

Creating a national business environment to stimulate innovation and localization of technology

Enhancing the contribution of innovation in the development of production and service sectors

Strategic Directions





National Policy for Sustainable Innovation 2030





development in R&D



Transforming Egypt to Sustainable **Innovative Knowledge Society**

Mission

Employing innovation to create value and enhance sustainability in all production and service sectors, enhancing quality of life, inclusive growth, and Egypt's competitiveness regionally and globally

Policies	Governance of the National Policy for Sustainable Innovation	Improving work environment, and instilling a scientific, innovation, and entrepreneurship culture	Diversifying and enhancing innovation financing to support sustainable dev and life quality	Strengthening the developmental role of HEIs	Developing the innovation capabilities and roles of HEIs			
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ves	Develop and publish an innovation index	Teach entrepreneurship through interactive, practical methods	Establishing a national fund to invest in venture funds	Program to enhance role of tech alliances in sustainable development	Develop university admission policies to enhance STEM appeal			
	Establish mechanisms for selecting and auditing executive leaders	Support researchers' devotion to innovative work	Incentive program for innovative companies	Program to promote startups and spinoffs	Establish an institutional framework for innovation activities			
Initi	Establish the National Council for Edu, Research, and Innovation	Program for disseminating and honoring innovation successes	Program for financing partnerships between HEIs and tech companies	Participation of HEIs in development strategies	Reform scientific scholarship system for overseas study			
	Activate the Egyptian Observatory for Science, Tech, and Innovation	Program for promoting scientific, i&e culture and practices in society	Program for financing IP and tech acquisition and transfer from abroad	Market services and outcomes of research institutions	Support industrial internship programs			
gran		Develop legislation and regulations of innov and emerging technologies	Program for financing green innovations	Program for technology transfer and deepening industrialization	Develop mechanisms for registering IPR			
Pro				Promoting digital transformation and AI in HEIs	Program to enhance contribution of Egyptian expats			
ĺ					Program for human resource			

الإسـتراتيجية الوطنية للتعليـم العالي والبحـث العلمي 2030

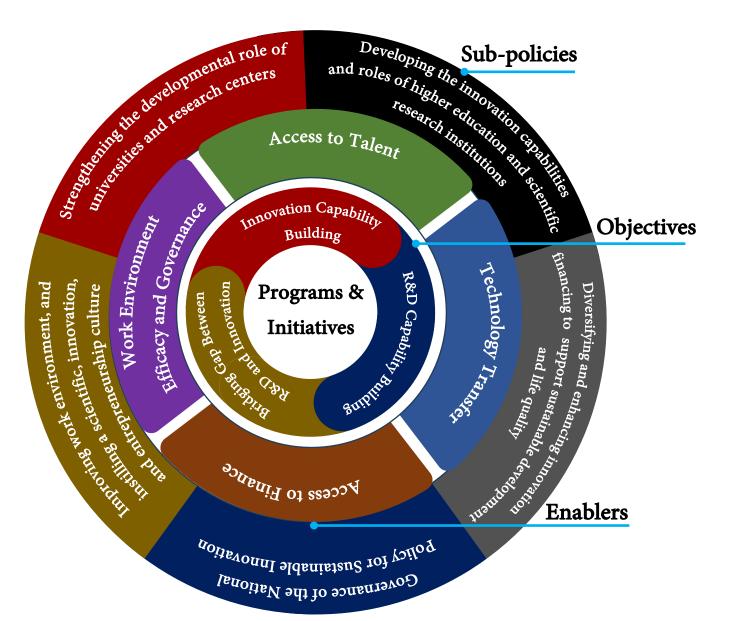


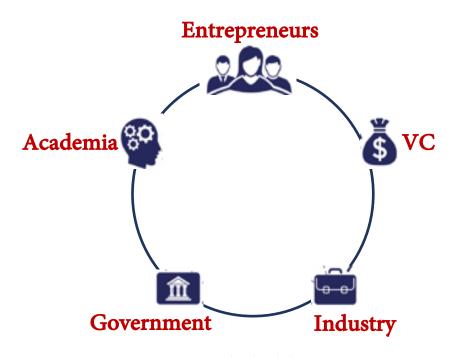


Sub-policies, Enablers, Objectives, & Stakeholders









Stakeholders

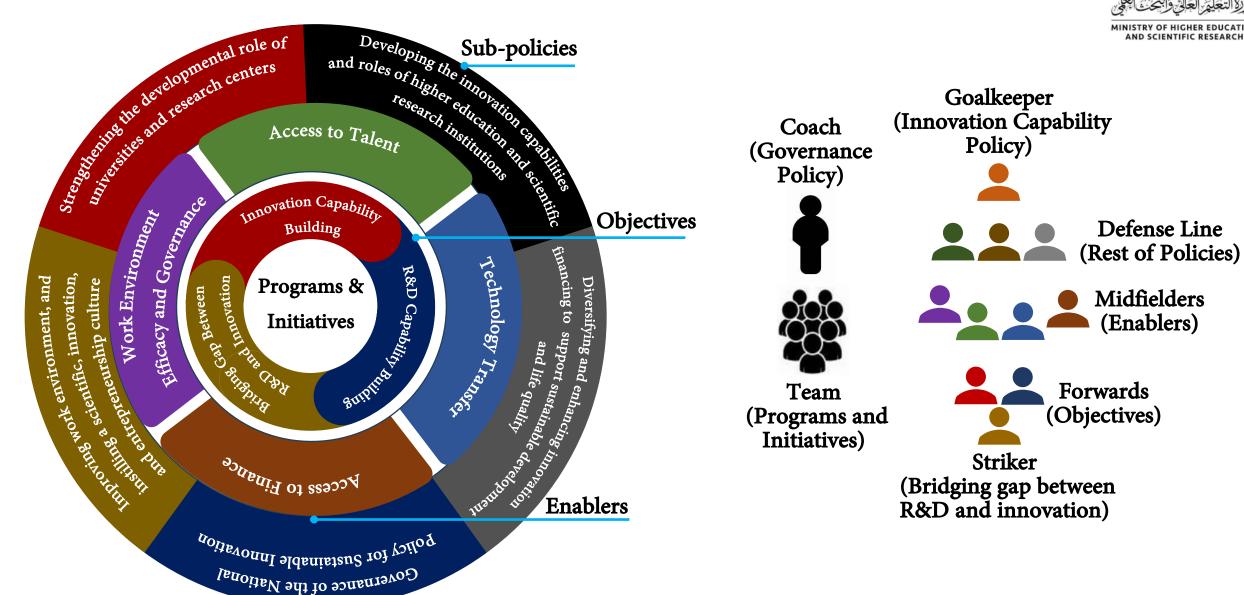
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Soccer Team Resemblance





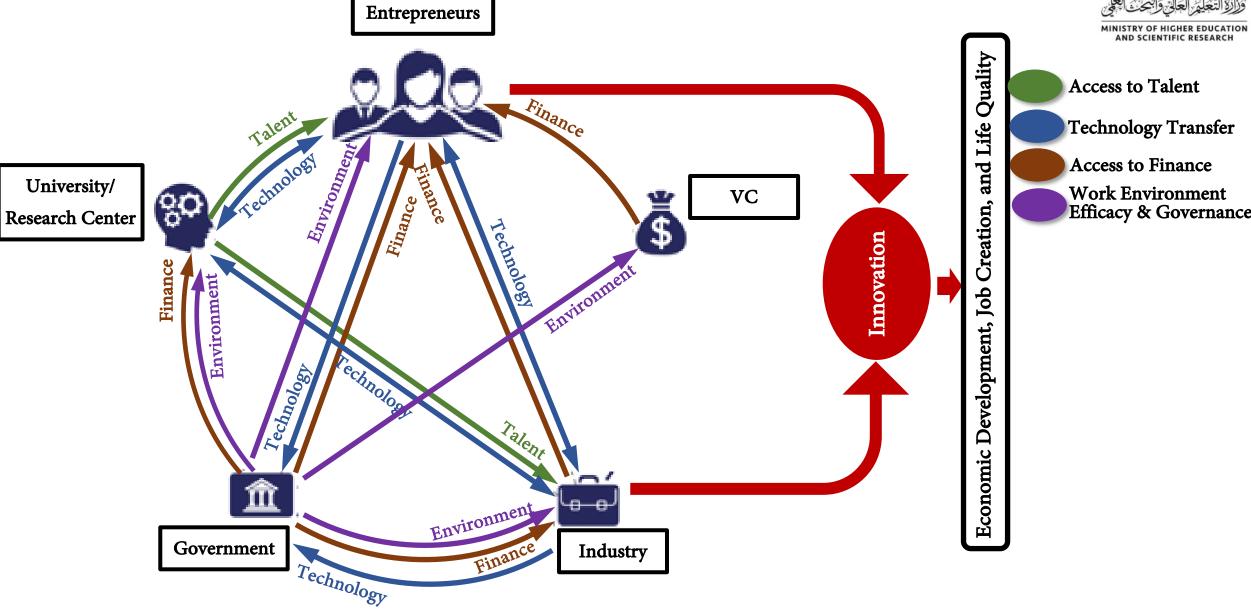
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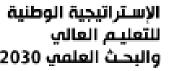




Policy Enablers











Entrepreneurs



Policy I

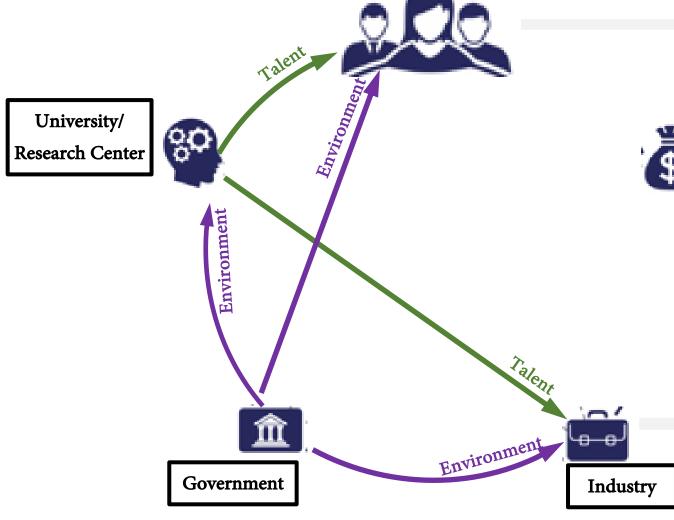
Developing the innovation capabilities and roles of higher education and scientific research institutions

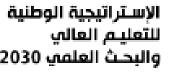


Focusing on Access to Talent

Programs & Initiatives

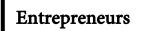
- Develop university admission policies to enhance STEM appeal
- 2 Establish an institutional framework for innovation activities
- 3 Reform scientific scholarship system for overseas study
- 4 Support industrial internship programs
- 5 Develop mechanisms for registering IPR
- 6 Program to enhance contribution of Egyptian expats
- 7 Program for human resource development in R&D





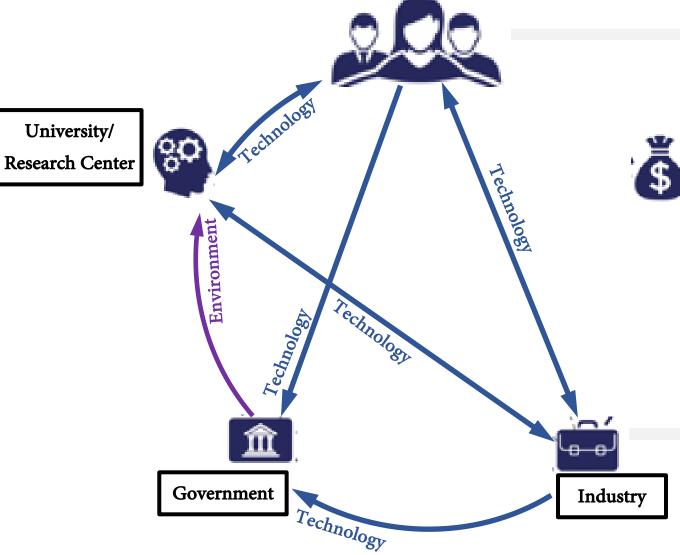








Policy II



Strengthening the developmental role of universities and research centers

Access to Talent

Technology Transfer

Access to Finance

Work Environment
Efficacy & Governance

Focusing on Technology Transfer

Programs & Initiatives

- Program to enhance role of technology alliances in sustainable development
- 9 Program to promote startups and spinoffs
- Participation of academic institutions in development strategies
- 11 Market services and outcomes of research institutions
- Program for technology transfer and deepening industrialization
- 3 Promoting digital transformation and AI in academic institutions



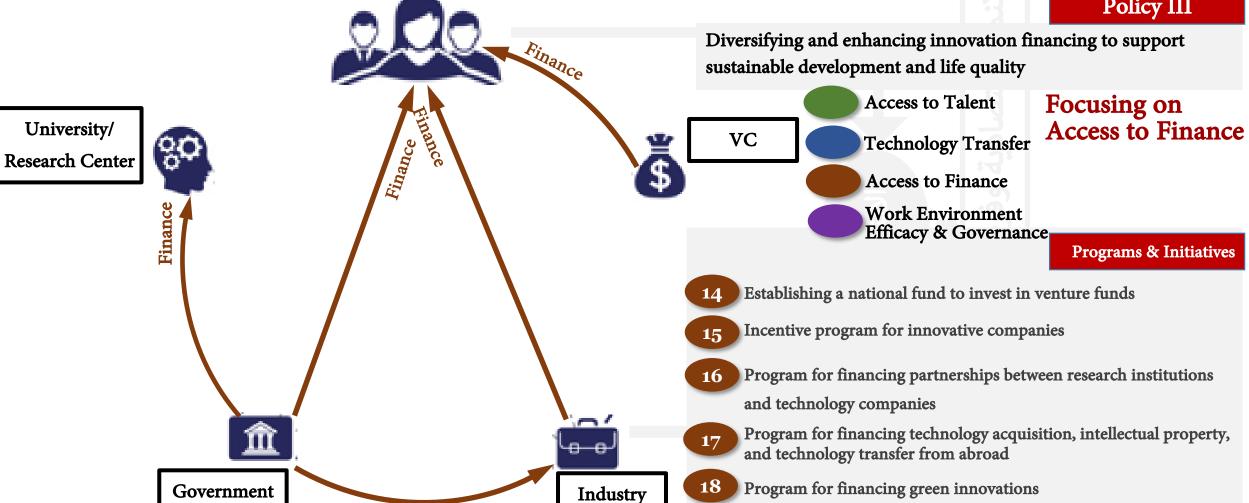








Policy III









Entrepreneurs



Policy IV Improving work environment, and instilling a scientific, innovation, and entrepreneurship culture Environment Access to Talent Focusing on Work Technology Transfer Environment University/ **VC** Research Center **Efficacy** Access to Finance Work Environment Environment Efficacy & Governance Programs & Initiatives Teach entrepreneurship through interactive, practical methods Support researchers' devotion to innovative work Program for disseminating and honoring innovation successes Program for promoting scientific, innovation, and entrepreneurship culture and practices in society Environment Develop legislation and regulations of innovation and emerging **23** technologies Government **Industry**

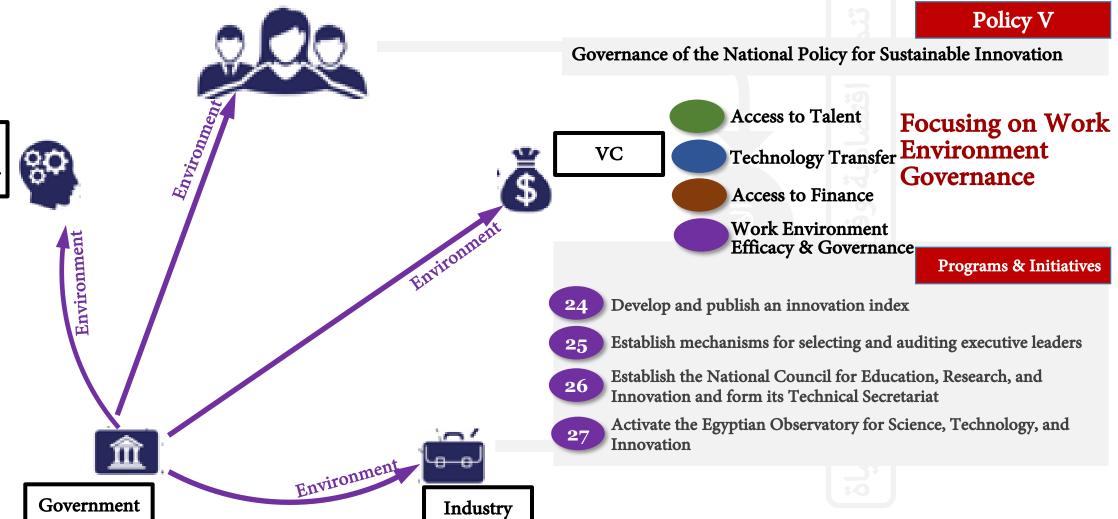


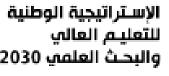


Entrepreneurs



MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH









Policy Objectives





Technology Transfer

Work Environment

Access to Finance

Capability Building

Efficacy & Governance

Programs & Initiatives

- Develop university admission policies to enhance STEM appeal
- Reform scientific scholarship system for overseas study
- Support industrial internship programs
- Program to enhance contribution of Egyptian expats
- Program for human resource development in R&D
- Support researchers' devotion to innovative work
- Program for promoting scientific, innovation, and entrepreneurship culture and practices in society

R&D Capability Building

Eliminate Gap between R&D and Innovation

Innovation Capability Building



Valley of Death







Policy Objectives



Access to Talent

Technology Transfer

Access to Finance

Work Environment Efficacy & Governance

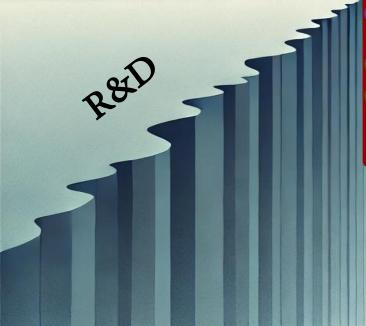
Programs & Initiatives

- Establish an institutional framework for innovation activities
- 5 Develop mechanisms for registering IPR
- Program to enhance role of technology alliances in sustainable development
- 9 Program to promote startups and spinoffs
- O Participation of academic institutions in development strategies
- Market services of research institutions
- 12 Program for tech transfer and deepening industrialization
- Promoting digital transformation and AI in academic institutions
- 14 Establishing a national fund to invest in venture funds
- Program for financing partnerships between research institutions and technology companies
- 18 Program for financing green innovations

R&D Capability Building

Eliminate Gap between R&D and Innovation

Innovation Capability Building



Valley of Death







Policy Objectives



Access to Talent

Technology Transfer

Access to Finance

Work Environment Efficacy & Governance

Programs & Initiatives

- 15 Incentive program for innovative companies
- Program for financing technology acquisition, intellectual property, and technology transfer from abroad
- 19 Teach entrepreneurship through interactive, practical methods
- 21 Program for disseminating and honoring innovation successes
- Develop legislation and regulations of innovation and emerging technologies
- 24 Develop and publish an innovation index
- Establish mechanisms for selecting and auditing executive leaders
- Establish the National Council for Education, Research, and Innovation and form its Technical Secretariat
 - Activate the Egyptian Observatory for Science, Technology, and Innovation

R&D Capability Building

- ☐ Eliminate Gap between R&D and Innovation
- Innovation Capability Building









Sub-policy 1 Elements





%HEIs with effective innovation policies and regulations

Number of trainees of industrial training programs

Number of projects with expats

%researchers trained on entrepreneurship, innovation, AI,

and emerging technologies

Number of IPRs Percentage of STEM students

Number of researchers and envoys

Developing the innovation capabilities and roles of HEIs



Policies to stimulate linking HEIs with industry and society

IPRs to support innovation Qualified human resources

HEIs with world-class innovation standards and internal

Educational and research systems that stimulate innovation



Program to enhance contribution of Egyptian expats

Program for human resource development in R&D

Develop mechanisms for registering IPR

Develop university admission policies to enhance STEM appeal

Establish an institutional framework for innovation activities

Reform scientific scholarship Support industrial system for overseas study internship programs



Developing the Higher Education and Scientific Research System in Egypt

Updating the mission of HEIs to enhance their role as a key driver of innovation and sustainable development

Developing research and innovation human resources







Sub-policy 2 Elements





Number and size of AI and digital Number and size of plans

Number and volume of services provided by HEIs

Number and size of participation of HEIs in development plans

Number of tech projects and alliances and their economic return

Number and size of technology transfer licenses Number of tech startups and spinoffs

Strengthening the developmental role of HEIs



HEI perspective as a key partner to support sustainable development

HEI partnerships with local and global innovation stakeholders

Geographically balanced distribution of tech startups and spinoffs according to development priorities



Marketing services and outcomes of HEIs

Program to enhance role of tech alliances in sustainable development

Promoting digital transformation and AI in HEIs

Program to promote startups and spinoffs

Program for technology transfer and deepening industrialization

Participation of HEIs in development strategies



Updating the mission of HEIs to enhance their role as a key driver of innovation and sustainable development

Enhancing the contribution of innovation in the development of production and service sectors

Developing infrastructure and support systems to promote innovation in the production sectors and society





Sub-policy 3 Elements





Size of incentives provided to innovative companies and number of beneficiaries

National fund size

Size of financing of different types

Number of products, services, and industrial solutions produced and their economic return

Number of licensing contracts and transfer of technology from abroad and economic return



Funding opportunities for green innovations

Non-traditional financing frameworks for innovation support projects

Direct financing opportunities from international entities

Indirect funding opportunities at the regional level in exchange for research and advisory services

An effective mechanism to insure and cover risks associated with R&D spending



Incentive program for innovative companies

Establishing a national fund to invest in venture funds

Program for financing green innovations

Program for financing partnerships between HEIs and tech companies

Program for financing IP and tech acquisition and transfer from abroad



Develop domestic and foreign financing alternatives to support innovation and recent trends as green innovation







Sub-policy 4 Elements





Percentage of researchers engaged in innovative work

Number of new and amended legislations

Percentage of students taught entrepreneurship

Number of targeted culture awareness initiatives and size of beneficiaries

Percentage of students establishing startups

Improving work environment, and instilling a scientific, innovation, and entrepreneurship culture



New or amended innovation-friendly legislative frameworks

Entrepreneurship taught on a wide scale through interactive, practical methods

Researchers engaged in innovative work on a large scale.



Support researchers' devotion to innovative work

Program for disseminating and honoring innovation successes

Develop legislation and regulations of innovation and emerging technologies

Teach entrepreneurship through interactive, practical methods

Program for promoting scientific, innovation, and entrepreneurship culture and practices in society



Creating a national business environment to stimulate innovation and localization of technology

Developing infrastructure and support systems to promote innovation in the production sectors and society

Promoting scientific culture and a culture of innovation and entrepreneurship in society in cooperation with the media







Sub-policy 5 Elements





Innovation Index Results

%HEIs with innovation impact dashboards

Regular periodic performance reports

National Council for Education, Research, and Innovation established and its Technical Secretariat formed

Governance of the National Policy for Sustainable Innovation



Integrated system for preparing, evaluating, and reviewing the national policy for sustainable innovation

Linking the national innovation policy system with the national planning system

Practical frameworks for linking national policy and state strategies



Establish mechanisms for selecting and Establish the National Council for Education, Research, and auditing executive leaders Innovation and form its Technical Secretariat

Activate the Egyptian Observatory for Science, Tech, and Innovation

Develop and publish an innovation index



Developing an integrated system for the governance of innovation policy, and for performance and developmental impact evaluation of the National Innovation System

Provide appropriate frameworks for the governance and deployment of emerging technologies in the economy and society







National Policy for Sustainable Innovation 2030



Sub-po	licies
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Sub-policies وَأَوْوَ التَّعَلِيُّنِ الْعِلِيِّ وَالْبِحِّتُ الْغِلِي وَالْبِحِّتُ الْغِلِي وَالْبِحِّتُ الْغِلِي																											
Developing the innovation capabilities and roles of higher education and scientific research institutions					role of universities and research						innov	innovation financing to					oving v nstillin v. and o	ıg a sci	entific	,	Governance of the National Policy for Sustainable Innovation				CATION RCH		
Develop university admission policies to enhance STEM appeal	Establish an institutional framework for innovation activities	Reform scientific scholarship system for overseas study	Support industrial internship programs	Develop mechanisms for registering intellectual property rights	National program to enhance the contribution of Egyptian expats	National program for human resource development for R&D	Program to enhance role of tech alliances in sustainable development	National program to promote startups and spinoffs	Participation of academic institutions in development strategies	Market services of research institutions	Program for technology transfer and deepening industrialization	Promoting digital transformation and AI in academic institutions	Establish a national fund to invest in venture funds	Incentive program for innovative companies	Program for financing academic-industry partnerships	Program for financing technologies, IP, and tech transfer from abroad	Program for financing green innovations	Teach entrepreneurship through interactive, practical methods	Support researchers' devotion to innovative work	Program for disseminating and honoring innovation successes	Program for promoting scientific, i&e culture and practices in society	Develop legislation and regulations of innovation & emerging technologies	Develop and publish an innovation index	Establish mechanisms for selecting and auditing executive leaders	Establish National Council for Education, Research, and Innovation	Activate the Egyptian Observatory for Science, Tech, and Innovation	rs Programs & Initiatives
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Implementation Authorities



Sub-policies

Developing the innovation capabilities and roles of higher education and scientific research institutions

Strengthening the developmental role of universities and research centers

institutions in development strategies

Market services of research

Diversifying and enhancing innovation financing to support sustainable dev't

Improving work environ., and instilling a scientific, innov. and entrepren. culture

Governance of the National Policy for Sustainable Innovation CATION

Programs & Initiatives

Support industrial internship

Develop mechanisms for registering contribution of Egyptian expats intellectual property rights

alliances in sustainable development Program to enhance role of tech resource development for R&D National program for human

National program to promote startups and spinoffs Participation of academic

Program for technology transfer and deepening industrialization institutions

Promoting digital transformation and AI in academic institutions

Establish a national fund to invest

Incentive program for innovative Program for financing academic companies

Program for financing technologies, IP, and tech transfer from abroad industry partnerships

Teach entrepreneurship through Program for financing green innovations

Support researchers' devotion to innovative work



Program for disseminating and honoring innovation successes







innovation & emerging technologies

Develop and publish an innovation

Develop legislation and regulations

i&e culture and practices in society

Program for promoting scientific,



Establish mechanisms for selecting



Education, Research, and Innovation

Activate the Egyptian Observatory for Science, Tech, and Innovation







Establish an institutional framework

for innovation activities

Develop university admission

Reform scientific scholarship system

for overseas study









































































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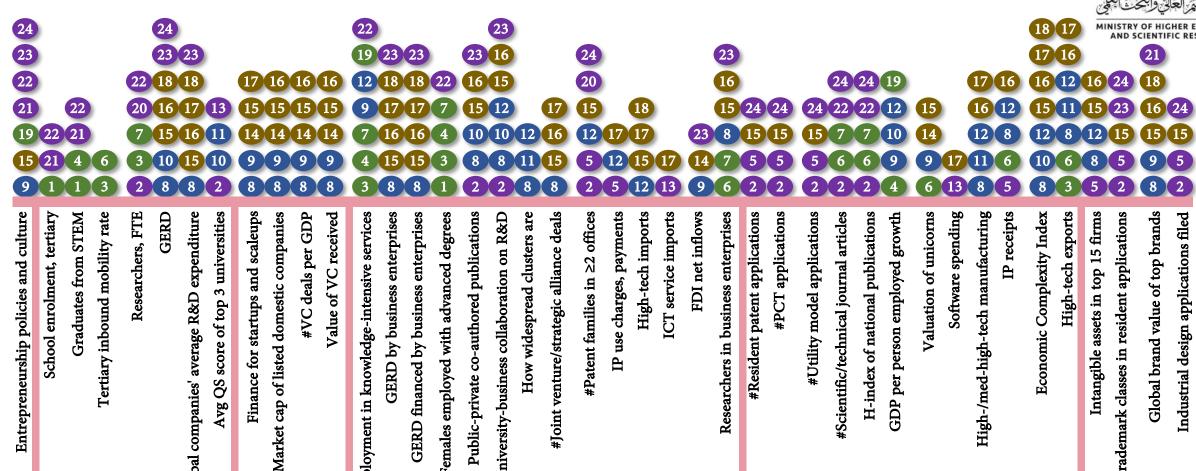


average R&D



GII Impact





Employment in knowledge-intensive services #Joint venture/strategic alliance deals IP use charges, payments High-tech imports ICT service imports FDI net inflows Researchers in business enterprises #Resident patent applications #PCT applications **GERD** financed by business enterprises Public-private co-authored publications University-business collaboration on R&D How widespread clusters are #Patent families in ≥2 offices #Utility model applications Females employed with

H-index of national publications GDP per person employed growth Valuation of unicorns articles #Scientific/technical journal

Software spending High-/med-high-tech manufacturing

High-tech exports Intangible assets in top 15 firms **Economic Complexity Index**

Trademark classes in resident applications Global brand value of top brands

Industrial design applications filed

Related GII Metrics

Programs & Initiatives

Top three global companies' Institutions Human Capital

Market

Business

Knowledge and Technology

Creative

Outputs

and Research Sophistication Sophistication

Outputs

23







1USD

Spending

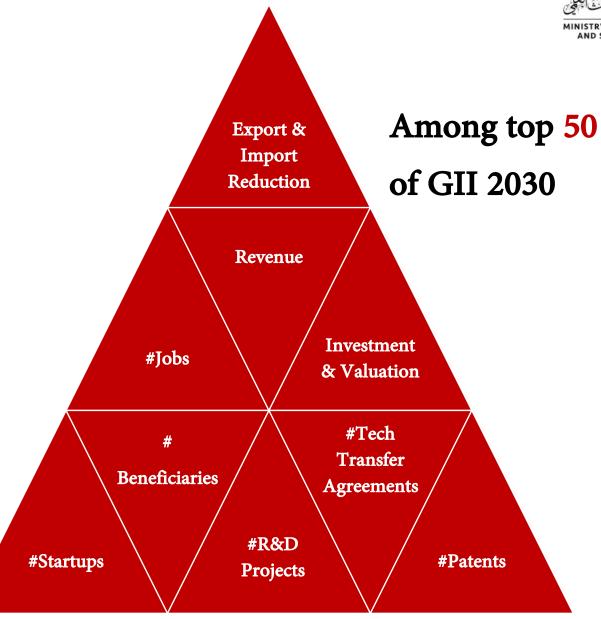


5USD

Return

(Export + Import Reduction +

Revenue + Investment + Valuation)



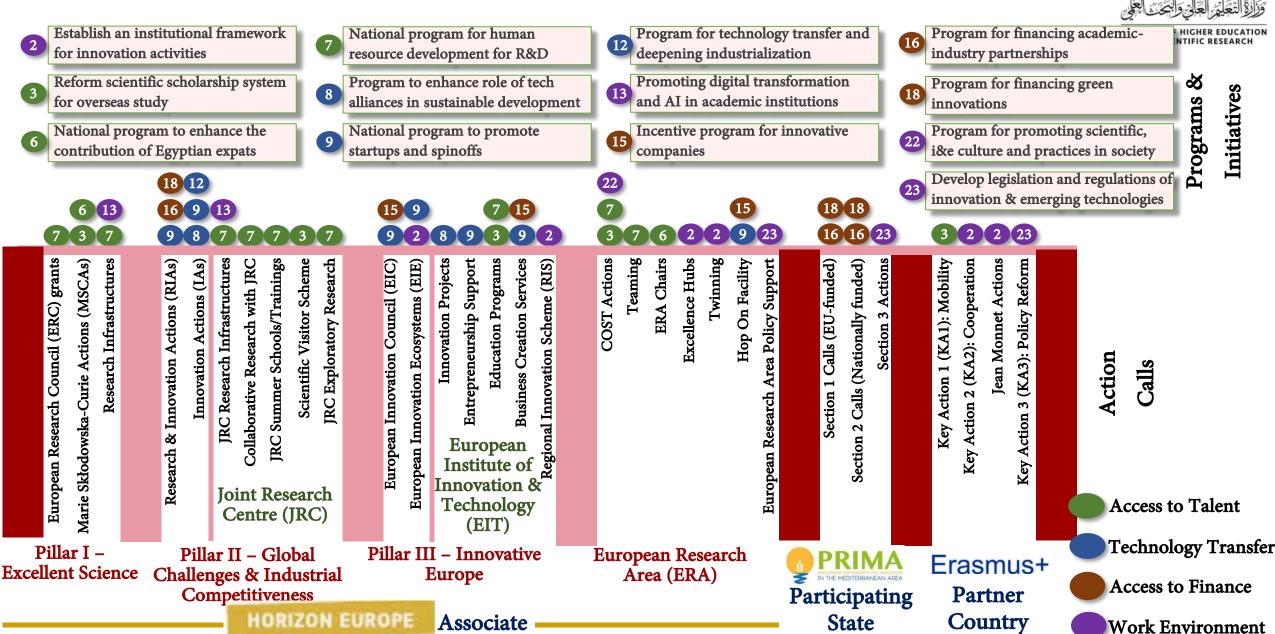
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Leveraging EU Research & Innovation Programs









Passing Early Stage of Policy Implementation





2. هل يوجد هيكل تنظيمي مختص بتنفيذ اللائحة (مكتب نقل التكنولوجيا، مكتب/حاضنة ريادة أعمال،)؟
Is there an organizational structure for the regulation (technology transfer office, entrepreneurship office, etc)?

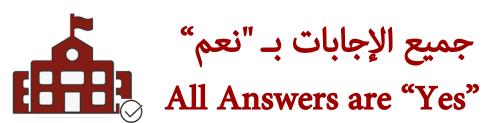
3. هل توجد سياسة لحماية حقوق الملكية الفكرية وتأسيس الشركات المنبثقة؟
Is there a policy for protecting IPR and establishing spinoffs?

 \times هل يتم تنظيم فعاليات دورية منتظمة للتشبيك مع شركاء الابتكار من صناعة ورواد أعمال ومستثمرين وحكومة? \times Are regular networking events held with innovation partners from industry, entrepreneurs, investors, government?

ك الملكية الفكرية وأنشطة الابتكار؟ على يوجد نظام لرصد وتقييم الملكية الفكرية وأنشطة الابتكار؟ Is there a system for monitoring and evaluating IP and innovation activities?

6. هل لدى الباحث فهم بشأن أنشطة ولائحة الابتكار ويحظى بحوافز مميزة حال المشاركة فيها؟

Does the researcher understand innovation activities/regulation and receive distinctive incentives for participating?









Thank You...