United Nations Educational, Scientific and Cultural Organization

**Global Observatory of Science, Technology and Innovation Policy Instruments**

GO SPIN FOR SCIENCE POLICY
GLOBAL OBSERVATORY OF SCIENCE, TECHNOLOGY AND INNOVATION POLICY INSTRUMENTS

# Argentina - STI Operational Policy Instruments

## Title of the instrument

Argentine Sectorial Fund (FONARSEC)

## STI Supply and Demand Sides

Fostering STI´s demand side

## Keywords

private sector, alliances, competitivity, Innovation

## Overview

The National Agency for Scientific and Technological Promotion (ANPCyT) supports, through the Argentine Sectorial Fund (FONARSEC), projects and activities whose objective is to develop critical capacities in areas of high potential impact and permanent transfer to the productive sector.

Mission: The central mission is to bring together a more inclusive society and a productive paradigm, in which primary production is the sustenance of a national industry capable of satisfying not only our needs but those of other regional and international economies.

Vision: To be an instrument for the emergence of new areas of production of goods and services where those who make science, develop technology and produce what we consume, share objectives and can be integrated and recognized in common projects.

Functions: To carry out sectoral promotion actions according to the thematic priorities set by the Ministry of Science, Technology and Productive Innovation for each of the sectors involved in the programmes.
Define the modality of evaluation of the projects under consideration, incorporating the experience accumulated by the National Agency for Scientific and Technological Promotion (ANPCyT) in the area.
Organise and disseminate the calls for projects, where appropriate, for each sector.
Establish the criteria that correspond to the objectives set by the Ministry of Science, Technology and Productive Innovation for the execution of the allocated resources.
To follow up the results of the projects financed in order to guarantee the achievement of the objectives that guaranteed their timely approval.
Generating the conditions that allow the distribution of resources contributes to harmonious national development.
To favour coordination between the financing instruments that were established for the Sectorial Funds with the rest of those in force in the ANPCyT and with other sector institutions in the country.
To arbitrate actions that favour the appropriate transfer of the results to the Argentine productive system and to society in general.

Instruments:
Strategic Projects.
Regional Technological Innovation Fund (FITR).
GTec International Internships (Internships).
Potential Area (Environment and Climate Change).
Potential Area (Social Development)
Potential Area (Health)
Potential Area (Energy)
Potential Area (Agroindustry)
Potential Area (Nanotechnology)
Potential Area (ICT)
Project Flow Facilitators (EMPRETECNO FFP)
Technological Infrastructure and Equipment Project (PRIETec)
Training Program for Managers and Technological Linkers (GTec)
Technology Based Companies (EMPRETECNO PAEBT)

## Objectives of the STI plan

Strengthen fundamental aspects of the National STI system (human resources, infrastructure, organization, procedures, articulation and coordination) in order to provide it with sufficient capacity to meet the productive and social demands as well as enhancing its effectiveness and operational efficiency through the generation of greater complementarities, reducing contradictions and optimizing the use of resources.
To promote entrepreneurial culture and innovation with a view to generating a new competitive productive profile focused on the aggregation of the creation of quality employment and the incorporation of knowledge by both traditional industries and new companies in activities of high technological complexity, focusing on socio-productive nuclei with high economic and social impact.

## Standardized objectives and goals

b. Strengthening the infrastructure of research laboratories in the public and private sectors

c. Human resources for research, innovation and strategic planning. Capacity building,education and training of specialized human capital for (1) the production of new scientific knowledge, (2) development of new technologies, (3) promotion of innovation within the productive and services systems and (4) management of the knowledge society.

f. Development of strategic technological areas and new niche products and services with high- added value. Promotion and development of innovation in the production of goods and services. Promotion of start-ups in areas of high technology

## Other instrument objectives

Promote new innovative spaces that impact the Argentine productive system, increasing alliances between the scientific-technological sector and companies, so that the latter incorporate added value
To create the conditions to advance towards a productive profile that aims at added value and quality, through the formation of enterprising HR, with management capacity and innovative thinking.

## Sectoral and horizontal approach of the instrument

a. Sectoral: the benefits go to a specific knowledge discipline, technological area, productive sector or a specific issue

## Socio-Economic Objective Classification

Industrial production and technology

## Mode of support / Type of Mechanism

a. Grants (grant funds)

g. Scholarships

## Conditions to apply for the instrument

The benefits are awarded through public calls of the National Agency for Scientific and Technological Promotion.

## Target groups / Beneficiaries

Individual researchers or professionals, PhD holders, higher-education teachers

Universities, colleges, tertiary education institutions (public or private)

Institutes and other research centres (public or private)

Business/enterprises (public or private) at different categories (corporations, SMEs, etc)

## Starting date

2009-00-00

## Selection Criteria

They vary according to the different programs and lines of FONARSEC, see the link for more information.

## Eligible costs

They vary according to the different programs and lines of FONARSEC, see the link for more information.

## Source of funding

Government sector

## Funding, aditional information

Own agency, department, institution (internal funds)

## Mode of disbursement of financial resources

They vary according to the different programs and lines of FONARSEC, see the link for more information.

## Annual budget

2015: $642.400.363

## Total annual Budget

| | |
|---|---|
| Annual budget in US$ current | 32 |

## Geographic coverage

National

## Results, outcomes and evidence of success

2015 statistics: www.agencia.mincyt.gob.ar/frontend/agencia/post/1539

## Relevant links

www.agencia.mincyt.gob.ar/frontend/agencia/fondo/fonarsec

## Related Sustainable Development Goals (SDGs)

SDG 8. Decent work and economic growth

Target 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors

Target 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

SDG 9. Industry, innovation and infrastructure

Target 9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

## Source

www.agencia.mincyt.gob.ar

## Data entry date

2017-07-28

*Last update:2018-07-25*

**Global Observatory of Science, Technology and Innovation Policy Instruments**

# Brazil - STI Operational Policy Instruments

## Title of the instrument

Programa Inova (FINEP)

## STI Supply and Demand Sides

Fostering STI´s demand side

## Keywords

Innovation, productivity, R&D, companies, private sector

## Overview

Launched on March 14,2013 by the Presidency of the Republic, with a budget of R$ 32.9 billion, the Inova Empresa Plan is Brazil´s most ambitious innovation plan. Designed to help raise the productivity of the economy, it placed the effort to build technological policies on a higher level. The Plan has a strong articulation of ministries, agencies and other institutions among which is the public company for Financing Studies and Projects (FINEP). This programme has various forms of support such as loans, subsidies and investment in companies directly or through funds.
The Inova Programme has several modalities:
Inova Aerodefense Innovation
Agro Innovation
Innovative Energy
Mineral Innovations
Inova Petro
Inova Health
Inova Health - Zika and arbovirose
Innovation Sustainability
Innovative Telecom
PAISS
PAISS Agricultural
PADIQ

## Objectives of the STI plan

Expansion of funding for STI development
Promoting technological innovation in companies

## Standardized objectives and goals

f. Development of strategic technological areas and new niche products and services with high- added value. Promotion and development of innovation in the production of goods and services. Promotion of start-ups in areas of high technology

## Other instrument objectives

Inova's conception is based on six pillars:
1. increased R&D in companies
2. Incentive for projects with higher technological risk
3. Integration of financing instruments such as credit, economic subsidy, business-university cooperative projects, non-reimbursable resources for research centres and universities and equity investments (start-ups, venture capital)
4. Intensified use of the state's purchasing power
5. Decentralization of credit and financial support through transfers to banks, agencies and regional and state foundations to promote research for better micro and small enterprises
6. Time reduction and administrative simplification.

## Sectoral and horizontal approach of the instrument

a. Sectoral: the benefits go to a specific knowledge discipline, technological area, productive sector or a specific issue

## Classification by main field of science

All

## Socio-Economic Objective Classification

Environment

Exploration and Exploitation of Space

Transport, telecommunication and other infrastructures

Energy

Industrial production and technology

Health

Agriculture

Defence

## Mode of support / Type of Mechanism

a. Grants (grant funds)

c. Loans

h. Credit incentives and venture capital

i. Trust funds

## Conditions to apply for the instrument

Conditions vary by modality. See link for more information.

## Target groups / Beneficiaries

Business/enterprises (public or private) at different categories (corporations, SMEs, etc)

R&D non-profit organizations (public or private)

## Starting date

2013-03-14

## Selection Criteria

Selection criteria vary by mode. See links for more information.

## Eligible costs

Eligible costs vary by modalities. See link for more information.

## Source of funding

Government sector

## Funding, aditional information

Own agency, department, institution (internal funds)

## Mode of disbursement of financial resources

The mode of disbursement varies according to the modalities. See link for more information.

## Total annual Budget

| | |
|---|---|
| Annual budget in US$ current | 4294967295 |

## Geographic coverage

National

## Relevant links

www.finep.gov.br/apoio-e-financiamento-externa/programas-e-linhas/programas-inova/o-que-e-o-programa-inova

## Related Sustainable Development Goals (SDGs)

SDG 8. Decent work and economic growth

Target 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors

SDG 9. Industry, innovation and infrastructure

Target 9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

## Source

www.finep.gov.br

## Data entry date

2017-10-13

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# Israel - STI Operational Policy Instruments

## Title of the instrument

I-CORE: Israeli Centres of Research Excellence

## STI Supply and Demand Sides

Fostering STI´s supply side

## Keywords

I-CORE, Research Excellence

## Overview

An Initiative designed by the Planning and Budgeting Committee and the Government of Israel, which gradually established leading research centres specializing in a range of disciplines. The Centres of Excellence and the programme's vision are aimed at fundamentally strengthening the long term positioning of Israel's academic research and its stature among leading researchers in Israel and abroad

## Objectives of the STI plan

Strengthening scientific research in Israel and establishing Israel's standing as a world leader in scientific research, 'brain gain': attracting excellent researchers back to Israel, as a central means of fortifying the research capabilities and the academic faculty of the institutions of higher education. Creating a critical mass and intensifying the relative advantages in selected fields in the different institutions, improving and upgrading the research infrastructure in the universities, encouraging academic innovation, including integration between different fields of knowledge (multidisciplinary), maintaining and promoting advanced programmes of instruction and training in selected fields, encouraging research collaboration between institutions of higher education, both universities and colleges, strengthening scientific research in Israel in disciplines of system-wide and national importance, promoting collaboration with leading researchers and research institutions worldwide.

## Standardized objectives and goals

a. Strengthening the production of new endogenous scientific knowledge

b. Strengthening the infrastructure of research laboratories in the public and private sectors

c. Human resources for research, innovation and strategic planning. Capacity building,education and training of specialized human capital for (1) the production of new scientific knowledge, (2) development of new technologies, (3) promotion of innovation within the productive and services systems and (4) management of the knowledge society.

e. Strengthening the social appropriation of scientific knowledge and new technologies

k. Strengthening the quality of technology foresight studies to: assess the potential of high-value markets, develop business plans for high-tech companies, construct and analyse long-term scenarios and provide consulting services and strategic intelligence

l. Strengthening regional and international co-operation, networking and promotion of STI activities

## Sectoral and horizontal approach of the instrument

b. Horizontal: the benefits go to all the disciplines, areas and sectors

## Classification by main field of science

All

## Classification by main field of science

All fields

## Socio-Economic Objective Classification

General advancement of knowledge

## Mode of support / Type of Mechanism

a. Grants (grant funds)

d. Creation of, and support for, technological poles and centres of excellence

g. Scholarships

k. Others, specify

## Conditions to apply for the instrument

The research topics selected for the Centres were selected in a wide bottom-up process of consultation with the Israeli academic community, reflecting genuine priorities and scientific interest of researchers in Israel. Out of the large number of suggestions received by researchers, specific topics were chosen by designated committees. Once the topics were announced, a call for proposal was issued inviting groups of researchers to submit proposals for the establishment of I-COREs in these topics. The I-CORE research groups are comprised of academic staff members and researchers from institutes of higher education (at least one member of each Centre must be affiliated with an Israeli university), medical centres and research centres. Outstanding researchers will be recruited to the centres within three years of their establishment. These researchers also receive positions within one of the institutes, where they join the academic staff and acquire tenure according to the standard procedures. Each Centre will be directed by a Scientific Directorate of 3–5 members, including the scientific administrator. The university with which the Scientific Administrator is affiliated shall be referred to as the coordinating university. The Coordinating University shall be responsible for all administrative co-ordination with the Israel Science Foundation and the programme’s steering committee. Participating institutions can be universities, colleges, hospitals and research institutes. Most of the research infrastructure of the Centre will be established within the leading university

## Target groups / Beneficiaries

Graduate students

Individual researchers or professionals, PhD holders, higher-education teachers

Universities, colleges, tertiary education institutions (public or private)

Institutes and other research centres (public or private)

Secondary and primary schools (public or private)

Research groups

R&D non-profit organizations (public or private)

s. Others, specify

## Starting date

2011-00-00

## Selection Criteria

The evaluation and assessment processes of the proposals are carried out by the Israeli Science Foundation via international evaluation committees, which examined the proposals on a competitive basis. The evaluation and assessment processes are carried out in two stages – preliminary proposals and full proposals. The following criteria are considered while evaluating the full applications (their full description appears at URL: http: //www.i-core.org.il/Files-Documents). Quality of the research planned for the proposed Centre: the scientific quality of the application, including its degree of innovativeness and its potential for significant breakthroughs, credentials of the members of the proposed centre – both new and existing researchers, the research potential that may be achieved by supporting their combined research at the proposed Centre, coherence of the proposed research programme and the expected academic synergy between members of the proposed centre, importance and innovativeness of the subjects of research that the proposed centre will focus on. The participating institutes' capability of conducting the proposed research and the infrastructure currently available to them: the participating institutes' current ability to conduct the research in question, its existing infrastructure and its past achievements. The degree to which the proposed Centre's suits the general I-CORE programme: its participating institutes' proven ability to recruit new outstanding researchers for the centre and their ability to identify potential candidates who have expressed their willingness to join the centre in the future, relationships and collaboration with other institutes in Israel, ability to establish and promote international relationships to advance the topic of research conducted at the Centre, expected contribution to graduate students' training and educational programmes, interaction with other fields of research, contribution to Israeli society and Israel's potential sustainable growth, including collaboration with the industry when relevant. The proposed Centre's pertinence to the relevant field of research as defined by the steering committee

## Eligible costs

Each I-CORE receives a five-year budget defined according to the type of research that the Centre conducts. Experimental research centres will be allocated up to NIS 50 million and theoretical research centres will be allocated up to NIS 25 million

## Source of funding

Government sector, Higher education sector

## Mode of disbursement of financial resources

The Israel Science Foundation manages the funding to the centres

## Annual budget

Total budget of the PBC for 16 centres is NIS 450 million. The budget is distributed to the centres through their 5 years of activity.

## Geographic coverage

National

## Results, outcomes and evidence of success

On the one hand, it is too early to report about significant scientific results. On the other hand, centres of Research Excellence have initiated common programmes with Simons Institute for Computing at Berkeley and with some Israeli companies, and have employed 60 young researchers, mainly Israeli citizens that were attracted back from foreign research centres ('brain-gain').

## Relevant links

www.i-core.org.il/Files-Documents

## Related Sustainable Development Goals (SDGs)

SDG 9. Industry, innovation and infrastructure

Target 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

## Source

GO-SPIN country profiles "Mapping Research and Innovation in the State of Israel"

## Data entry date

2017-04-12

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# India - STI Operational Policy Instruments

## Title of the instrument

Kishore Vaigyanik Protsahan Yojana (KVPY) - DST

## STI Supply and Demand Sides

Fostering STI´s supply side

## Keywords

mentorship, scholarship, basic science, undergraduate, science camp, university, research

## Overview

Kishore Vaigyanik Protsahan Yojana (KVPY) is an on-going National Programme to provide Mentorship and Scholarship support to pursue study in Basic Sciences. While KVPY program is initiated and funded by the Department of Science and Technology, Government of India, it is administered and implemented by the Indian Institute of Science (IISc) Bangalore to attract exceptionally motivated students to study science and pursue careers in research.
The KVPY Program enrolls students starting from Class XI standards (science subjects) and operates in 3 streams i.e. stream SA, Stream SX and Stream SB. Initiating with mentorship in initial 1-2 years through exposure in VIJOSHI Science Camp, it provides scholarship to KVPY students who joins in Science Courses (out 18 subjects) at the undergraduate (BSc, BS-MS or Integrated MS) level and continued up to post-graduate level.

## Objectives of the STI plan

Promoting the spread of scientific temper among all sections of society.
Enhancing skill for applications of science among the young from all social strata.

## Standardized objectives and goals

c. Human resources for research, innovation and strategic planning. Capacity building,education and training of specialized human capital for (1) the production of new scientific knowledge, (2) development of new technologies, (3) promotion of innovation within the productive and services systems and (4) management of the knowledge society.

## Other instrument objectives

The objectives of the program are to identify students with talent and aptitude for research, help them realize their potential in their studies, encourage them to take up research careers in science and ensure the growth of the best scientific minds for research and development in the country.

## Sectoral and horizontal approach of the instrument

b. Horizontal: the benefits go to all the disciplines, areas and sectors

## Mode of support / Type of Mechanism

g. Scholarships

k. Others, specify

## Conditions to apply for the instrument

The KVPY Fellowships are given to Indian Nationals to Study in India (Students intending to pursue/pursing under graduate program under Distance Education scheme/correspondence course of any university are not eligible to apply).

Stream SA: Students enrolled in XI Standard (Science Subjects) during the academic year 2018-19 and having secured a minimum of 75% (65% for SC/ST/PWD) marks in aggregate in MATHEMATICS and SCIENCE subjects in the X Standard Board examination. The fellowship of the students selected under this stream will be activated only if they join an undergraduate course in Basic Sciences (B.Sc./B.S./B.Stat./B.Math./Int. M.Sc./Int. M.S.) in the academic year 2020-21 after having secured a minimum of 60% (50% for SC/ST/PWD) marks in aggregate in Science subjects in the XII standard/(+2) Board Examination. During the interim period of one year they will be invited for the National Science (Vijyoshi) Camp and their travel expenses and local hospitality will be met by KVPY.

Stream SX: Students enrolled in XII Standard/ (+2) (Science subjects) during the academic year 2018–19 and aspiring to join undergraduate program in Basic Sciences namely Physics/Chemistry/Mathematics & Biology leading to B.Sc./B.S./B.Stat./B.Math./Int. M.Sc./Int. M.S. for the session 2019–20 provided they have secured a minimum of 75% (65% for SC/ST/PWD) marks in aggregate in MATHEMATICS and SCIENCE subjects (Physics/Chemistry/Biology) in the X Standard Board Examination and a minimum of 60% (50% for SC/ST/PWD) marks in aggregate in MATHEMATICS and SCIENCE subjects (Physics/Chemistry/Biology) in the XII standard Board Examination.

Students in their 2nd year of study in Cambridge International Examination Board and aspiring to join an UG program (viz. B.Sc./B.S./B.Stat./B.Math./Int. M.Sc./Int. M.S.)in Basic Sciences namely Physics, Chemistry, Mathematics and Biology in the Academic year 2018-19 are eligible to apply provided they have secured a minimum of 75% (65% for SC/ST/PWD) marks in aggregate in MATHEMATICS and SCIENCE subjects (Physics/Chemistry/Biology) in the X Standard Board Examination. They must secure 60% (50% for SC/ST/PWD) marks in aggregate in MATHEMATICS and SCIENCE subjects (Physics/Chemistry/Biology) in the XII standard Board Examination before taking up the fellowship, if awarded.

Stream SB: Students enrolled in the 1st year of undergraduate program in Basic Sciences namely Physics/Chemistry/Mathematics & Biology leading to B.Sc./B.S./B.Stat./B.Math./Int. M.Sc./Int. M.S. during the academic year 2018–19 and having secured a minimum of 60% (50% for SC/ST/PWD) marks in aggregate in MATHEMATICS and SCIENCE subjects (Physics/Chemistry/Biology) in the XII Standard Board Examination. In the 1st year final examination of B.Sc./B.S./B.Math./B.Stat./Int. M.Sc./Int. M.S. they must secure 60% (50% for SC/ST/PWD) marks before taking up the fellowship, if awarded.

Empowerment initiative in the KVPY Fellowship Program:
A certain number of additional fellowships exclusively for the students belonging to SC/ST community under the various streams as stated above will be operated.
A certain number of fellowships under various streams as stated above will be operated exclusively for students under the category of Persons With Disability (Physically and Visually Challenged).
Students enrolled in an undergraduate course in Basic Sciences, that is, B.Sc./B.S./B.Stat./B.Math./Int. M.Sc./Int. M.S. in Chemistry, Physics, Mathematics, Statistics, Biochemistry, Microbiology, Cell Biology, Ecology, Molecular Biology, Botany, Zoology, Physiology, Biotechnology, Neurosciences, Bioinformatics, Marine Biology, Geology, Human Biology, Genetics, Biomedical Sciences, Applied Physics, Geophysics, Materials Science or Environmental Science are eligible for KVPY fellowship.

## Target groups / Beneficiaries

Undergraduate students

## Starting date

1999-01-01

## Selection Criteria

Aptitude Test: After scrutiny of application forms and meeting the eligibility criteria for various streams, all eligible students will be called for aptitude test conducted both in Hindi and English at different centers across the country.
Admit Card - Students may download the admit card for the aptitude test from the website.
Interview: Based on the performance in the aptitude test, short-listed students will be asked to appear for an interview which is the final stage of the selection procedure.

## Eligible costs

From 5000 to 7000 rupees per months, and a 20000 to 28000 rupees annual contingency grant.

## Source of funding

Government sector

## Funding, aditional information

Own agency, department, institution (internal funds)

## Geographic coverage

National

## Results, outcomes and evidence of success

Each year nearly 2000 students are selected in 3 streams and approximately 1000 students received KVPY Scholarship every year. See more results at:
www.kvpy.iisc.ernet.in/main/results.htm

## Relevant links

dst.gov.in/scientific-programmes/scientific-engineering-research/kishore-vaigyanik-protsahan-yojana-kvpy
www.kvpy.iisc.ernet.in/main/index.htm

## Source

www.kvpy.iisc.ernet.in/main/index.htm

## Data entry date

2018-08-02

*Last update:2018-08-02*

**Global Observatory of Science, Technology and Innovation Policy Instruments**

# South Africa - STI Operational Policy Instruments

## Title of the instrument

Seed Fund Programme

## STI Supply and Demand Sides

Fostering the link between STI´s demand and supply sides

## Keywords

Seed Fund Programme, SFP, seed, SMME, high risk, SME

## Overview

The Technology Innovation Agency (TIA) provides a de-risking instrument aimed at assisting Higher Education Institutes (HEI), science councils, and Small Medium and Micro Enterprises (SMME) to advance their research outputs and ideas to develop prototypes, proof of concept, and business cases that could be used for further development. The fund is implemented in partnership with HEI and science councils, and provincial regional development agencies and incubators.

## Objectives of the STI plan

Provide financial resources and assistance to Higher Education Institutes (HEI), science councils, and Small Medium and Micro Enterprises (SMME) to advance their technological initiatives towards the commercialization of the technology/product.

## Standardized objectives and goals

a. Strengthening the production of new endogenous scientific knowledge

c. Human resources for research, innovation and strategic planning. Capacity building,education and training of specialized human capital for (1) the production of new scientific knowledge, (2) development of new technologies, (3) promotion of innovation within the productive and services systems and (4) management of the knowledge society.

f. Development of strategic technological areas and new niche products and services with high- added value. Promotion and development of innovation in the production of goods and services. Promotion of start-ups in areas of high technology

g. Strengthening programmes on science education at all levels (from primary school to postgraduate)

h. Promotion of the development of green technologies and social-inclusion technologies

k. Strengthening the quality of technology foresight studies to: assess the potential of high-value markets, develop business plans for high-tech companies, construct and analyse long-term scenarios and provide consulting services and strategic intelligence

## Sectoral and horizontal approach of the instrument

b. Horizontal: the benefits go to all the disciplines, areas and sectors

## Classification by main field of science

Engineering and technology

## Classification by main field of science

Electrical engineering, electronic engineering, information engineering

Mechanical engineering

Chemical engineering

Materials engineering

Environmental engineering

Environmental biotechnology

Industrial biotechnology

## Socio-Economic Objective Classification

Environment

Transport, telecommunication and other infrastructures

Energy

Industrial production and technology

Health

Agriculture

## Mode of support / Type of Mechanism

a. Grants (grant funds)

## Conditions to apply for the instrument

The application is exclusively done through the relevant Tech Transfer Offices (TTOs) at the various higher education institutions (HEIs). Eligible applicants will work through the relevant Seed Fund Partner. Applicants other than science councils and HEIs must be South African citizens with valid South African identity documents or legal entities registered with Companies and Intellectual Property Commission (CIPC), have the necessary contractual capacity to engage with Technology Innovation Agency, conduct all primary business operations, including but not limited to projects / programmes / enterprises, must be operated within South Africa and be registered with the CIPC, meet the Department of Trade and Industry Localisation Framework requirements of a minimum of 20% equity ownership by a South African entity and Broad-Based Black Economic Empowerment (B-BBEE) requirements as per the B-BBEE Act, be compliant with generally accepted corporate governance practices appropriate to the client's legal status, and regarding foreign owned IP, the IP should be licensed or assigned to a South African institution such as a university, science council or a legal entity registered with CIPC.

## Target groups / Beneficiaries

Individual researchers or professionals, PhD holders, higher-education teachers

Business/enterprises (public or private) at different categories (corporations, SMEs, etc)

## Starting date

2012-01-01

## Selection Criteria

Stage of business: pre-revenue, revenue generating, valid tax clearance certificate: Personal (pre-incorporated company) and/ or business, can demonstrate clear customer need and/ can demonstrate market potential, because of high risk, would not qualify for funding from traditional banks or, project plan has to align with funding activities, Potential to create competitive new intellectual property.

## Eligible costs

Business plan development, prototype development and evaluating prototypes against customer requirements, turning prototypes into pre-production products (scale up and piloting), detailed primary market research, activities leading to technology co-development, licensing of technology to manufacturers and for distribution, transfer of technology for development and manufacture, design development and support of certification activities through South African Bureau of Standards or equivalent, purchase of hardware for scale-up from prototypes, and supporting IP protection maintenance costs. Exclusions: working capital and human resource costs except with software development.

## Source of funding

Government sector

## Mode of disbursement of financial resources

Grant with a minimum investment of R 50,000 (US$ 3,800 approx.) and up to a maximum of R 500,000 (US$ 38,000 approx.) per innovation.

## Annual budget

5700000

## Geographic coverage

National

## Results, outcomes and evidence of success

Number of projects funded: 70 (2013/2014), 145 (2014/15), 275(2015/16).

## Relevant links

www.tia.org.za/seed-fund

## Related Sustainable Development Goals (SDGs)

SDG 8. Decent work and economic growth

Target 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

SDG 9. Industry, innovation and infrastructure

Target 9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

## Source

www.tia.org.za/seed-fund

## Data entry date

2017-11-09

# South Africa - STI Operational Policy Instruments

## Title of the instrument

Technology Platforms Programme

## STI Supply and Demand Sides

Fostering STI´s supply side

## Keywords

Technology Platforms Programme, TPP, infrastructure, biotechnology, Capacity building

## Overview

The Technology Innovation Agency (TIA) created the Technology Platforms Programme to develop human capital and facilitate access to key technical infrastructure and expertise that enables technological innovation in biotechnology.

## Standardized objectives and goals

b. Strengthening the infrastructure of research laboratories in the public and private sectors

c. Human resources for research, innovation and strategic planning. Capacity building,education and training of specialized human capital for (1) the production of new scientific knowledge, (2) development of new technologies, (3) promotion of innovation within the productive and services systems and (4) management of the knowledge society.

f. Development of strategic technological areas and new niche products and services with high- added value. Promotion and development of innovation in the production of goods and services. Promotion of start-ups in areas of high technology

j. Research and innovation eco-system: strengthening co-ordination, networking and integration processes which promote synergies among the different actors of the national scientific technological and productive innovation system (i.e. government, university and productive sectors)

k. Strengthening the quality of technology foresight studies to: assess the potential of high-value markets, develop business plans for high-tech companies, construct and analyse long-term scenarios and provide consulting services and strategic intelligence

## Other instrument objectives

The main objective of the programme is to lower the barriers of biotechnology innovators in the National System of Innovation to engage in technology innovation by develop human capital and facilitate access to key technical infrastructure.

## Sectoral and horizontal approach of the instrument

a. Sectoral: the benefits go to a specific knowledge discipline, technological area, productive sector or a specific issue

## Classification by main field of science

Engineering and technology

## Classification by main field of science

Industrial biotechnology

## Mode of support / Type of Mechanism

d. Creation of, and support for, technological poles and centres of excellence

f. Technical assistance

j. Information services

## Conditions to apply for the instrument

Firms and researchers from universities in the relevant domains may apply.

## Target groups / Beneficiaries

Technical and support staff for STI activities

Individual researchers or professionals, PhD holders, higher-education teachers

Universities, colleges, tertiary education institutions (public or private)

Business/enterprises (public or private) at different categories (corporations, SMEs, etc)

R&D non-profit organizations (public or private)

## Starting date

2011-00-00

## Source of funding

Government sector

## Funding, aditional information

Own agency, department, institution (internal funds)

## Annual budget

2016-2017: R 78.9 million (US$ 6.1 million approx.)

## Total annual Budget

| | |
|---|---|
| Annual budget in US$ current | 6100000 |

## Geographic coverage

National

Regional

## Results, outcomes and evidence of success

119 projects in total. 25 projects completed. Results for 2016-2017.

## Relevant links

www.tia.org.za/technology-platforms

## Source

www.tia.org.za/technology-platforms

## Data entry date

2018-02-21

*Last update:2018-08-22*

Global Observatory of Science, Technology and Innovation Policy Instruments

# South Africa - STI Operational Policy Instruments

## Title of the instrument

Seed Fund Programme

## STI Supply and Demand Sides

Fostering the link between STI´s demand and supply sides

## Keywords

Seed Fund Programme, SFP, seed, SMME, high risk, SME

## Overview

The Technology Innovation Agency (TIA) provides a de-risking instrument aimed at assisting Higher Education Institutes (HEI), science councils, and Small Medium and Micro Enterprises (SMME) to advance their research outputs and ideas to develop prototypes, proof of concept, and business cases that could be used for further development. The fund is implemented in partnership with HEI and science councils, and provincial regional development agencies and incubators.

## Objectives of the STI plan

Provide financial resources and assistance to Higher Education Institutes (HEI), science councils, and Small Medium and Micro Enterprises (SMME) to advance their technological initiatives towards the commercialization of the technology/product.

## Standardized objectives and goals

a. Strengthening the production of new endogenous scientific knowledge

c. Human resources for research, innovation and strategic planning. Capacity building,education and training of specialized human capital for (1) the production of new scientific knowledge, (2) development of new technologies, (3) promotion of innovation within the productive and services systems and (4) management of the knowledge society.

f. Development of strategic technological areas and new niche products and services with high- added value. Promotion and development of innovation in the production of goods and services. Promotion of start-ups in areas of high technology

g. Strengthening programmes on science education at all levels (from primary school to postgraduate)

h. Promotion of the development of green technologies and social-inclusion technologies

k. Strengthening the quality of technology foresight studies to: assess the potential of high-value markets, develop business plans for high-tech companies, construct and analyse long-term scenarios and provide consulting services and strategic intelligence

## Sectoral and horizontal approach of the instrument

b. Horizontal: the benefits go to all the disciplines, areas and sectors

## Classification by main field of science

Engineering and technology

## Classification by main field of science

Electrical engineering, electronic engineering, information engineering

Mechanical engineering

Chemical engineering

Materials engineering

Environmental engineering

Environmental biotechnology

Industrial biotechnology

## Socio-Economic Objective Classification

Environment

Transport, telecommunication and other infrastructures

Energy

Industrial production and technology

Health

Agriculture

## Mode of support / Type of Mechanism

a. Grants (grant funds)

## Conditions to apply for the instrument

The application is exclusively done through the relevant Tech Transfer Offices (TTOs) at the various higher education institutions (HEIs). Eligible applicants will work through the relevant Seed Fund Partner. Applicants other than science councils and HEIs must be South African citizens with valid South African identity documents or legal entities registered with Companies and Intellectual Property Commission (CIPC), have the necessary contractual capacity to engage with Technology Innovation Agency, conduct all primary business operations, including but not limited to projects / programmes / enterprises, must be operated within South Africa and be registered with the CIPC, meet the Department of Trade and Industry Localisation Framework requirements of a minimum of 20% equity ownership by a South African entity and Broad-Based Black Economic Empowerment (B-BBEE) requirements as per the B-BBEE Act, be compliant with generally accepted corporate governance practices appropriate to the client's legal status, and regarding foreign owned IP, the IP should be licensed or assigned to a South African institution such as a university, science council or a legal entity registered with CIPC.

## Target groups / Beneficiaries

Individual researchers or professionals, PhD holders, higher-education teachers

Business/enterprises (public or private) at different categories (corporations, SMEs, etc)

## Starting date

2012-01-01

## Selection Criteria

Stage of business: pre-revenue, revenue generating, valid tax clearance certificate: Personal (pre-incorporated company) and/ or business, can demonstrate clear customer need and/ can demonstrate market potential, because of high risk, would not qualify for funding from traditional banks or, project plan has to align with funding activities, Potential to create competitive new intellectual property.

## Eligible costs

Business plan development, prototype development and evaluating prototypes against customer requirements, turning prototypes into pre-production products (scale up and piloting), detailed primary market research, activities leading to technology co-development, licensing of technology to manufacturers and for distribution, transfer of technology for development and manufacture, design development and support of certification activities through South African Bureau of Standards or equivalent, purchase of hardware for scale-up from prototypes, and supporting IP protection maintenance costs. Exclusions: working capital and human resource costs except with software development.

## Source of funding

Government sector

## Mode of disbursement of financial resources

Grant with a minimum investment of R 50,000 (US$ 3,800 approx.) and up to a maximum of R 500,000 (US$ 38,000 approx.) per innovation.

## Annual budget

5700000

## Geographic coverage

National

## Results, outcomes and evidence of success

Number of projects funded: 70 (2013/2014), 145 (2014/15), 275(2015/16).

## Relevant links

www.tia.org.za/seed-fund

## Related Sustainable Development Goals (SDGs)

SDG 8. Decent work and economic growth

Target 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

SDG 9. Industry, innovation and infrastructure

Target 9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

## Source

www.tia.org.za/seed-fund

## Data entry date

2017-11-09