

The **PASET** Regional Scholarship and Innovation Fund

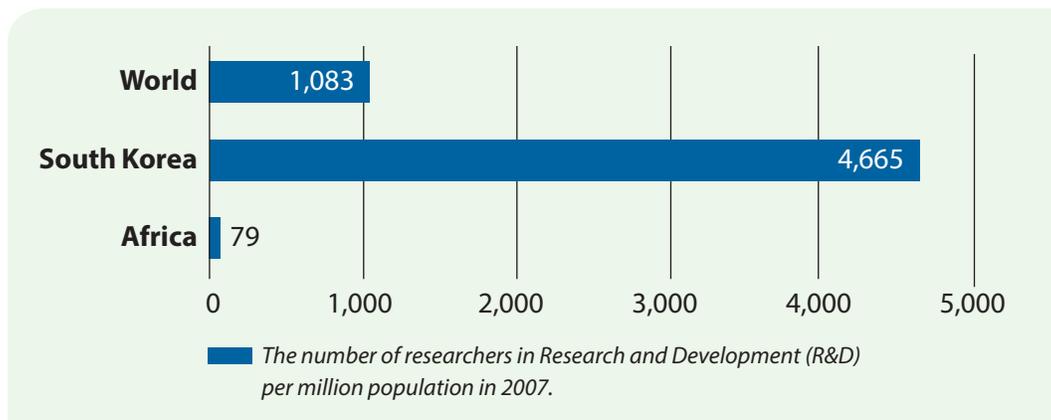


An Africa-led initiative to bridge the skills gap in Applied Sciences, Engineering, & Technology

THE CHALLENGE

Today, Africa is home to 13.4% of the world's population, but contributes barely 1.1% of scientific researchers in the world, with just about one scientist or engineer per 10,000 inhabitants. The resulting shortage of qualified faculty in African universities, especially in the Applied Sciences,

Engineering and Technology (ASET) fields, affects the quality of graduates entering the industry workforce. With 11 million new graduates entering the African job market annually, this generation of talented youth must be equipped with the skills to develop African solutions for African challenges.



AN AFRICA-LED SOLUTION

To address this huge gap and improve the quality of graduates entering the scientific and technical workforce, the **Partnership for Skills in Applied Sciences, Engineering and Technology (PASET)** was launched in 2013 by African governments and institutions. PASET promotes strategic partnerships between governments, private sector and partner countries from other regions to invest in skills in ASET fields in Africa. It is governed by African education ministers, business leaders, scientists, development experts and African academics, and facilitated by the World Bank. **In 2015, PASET introduced the Regional Scholarship and Innovation Fund (RSIF), launched by Senegal's President Macky Sall with initial commitments from Senegal, Ethiopia, and Rwanda.**

RSIF is a unique and far-reaching initiative, driven by african governments to accelerate the creation of a skilled and high quality labor force to propel Africa's socioeconomic transformation.

HOW IS RSIF DIFFERENT?

A focus on building capacity in Africa

- Many current scholarship programs in Africa provide funding for training abroad. These programs, while a good start, are unable to train the required number of highly skilled technical professionals. This gap affects the quality of scientific and technical education; productivity of firms seeking innovations; and the entry of techno entrepreneurs in industries across Africa.
- Most African scholarship programs have been historically driven by development partners and

tended to focus on health and agriculture, which is unsustainable in the long run. RSIF is different because it focuses on a broader range of disciplines, and is Africa-driven.

- RSIF will build capacity in Sub-Saharan African universities by tapping the experiences of fast-growing economies, through partnerships with their universities that have capacity in applied sciences, engineering and technology.

RSIF Beneficiaries

- Academic staff of African universities who lack PhD training.
- Young African scientists and engineers entering academia, industry, or the business world.
- African universities which will train the PhD students and become internationally recognized in ASET fields.

What will RSIF do?

- It will create a critical mass of highly skilled scientists and innovators in ASET fields, supporting its partners achieve a bold target of training about 10,000 African PhD holders in 10 years.
- It will build capacity within the region to sustainably support those PhDs beyond their training as they go into academia, industry, or become entrepreneurs.
- It will foster African governments and private sector's ownership of the fund and its cause.
- It will identify and nurture academically talented Africans who wish to further their studies in fields such as biotechnology, computer science, engineering, energy, food science, physics and geology.

How will it work?

RSIF will incorporate global best practices, like “sandwich” training options that incorporate international and home-country study in fields where capacity or quality is limited; build capacity of hosting institutions; and put a strong focus on student support at all stages. Merely training PhD students is not enough: RSIF will help graduates from its PhD programs continue high quality research if they enter or return to university faculties. It will also train them to start their own business ventures if they have entrepreneurial talent and aptitude; and facilitate their placement with firms to help their entry into the workforce.

OPERATIONALIZATION

RSIF will operate with three grant windows. Funds are now being raised for all three windows.

1

PhD Training Targets new students as well as existing faculty in priority ASET fields.

2

Research Facilitates scholarship recipients to undertake applied research to support priority development sectors within Africa.

3

Innovation Provides support to help recipients innovate for businesses or establish their own enterprises.

RSIF will be operationalized in 2016-2017. Its initial operations phase will include:

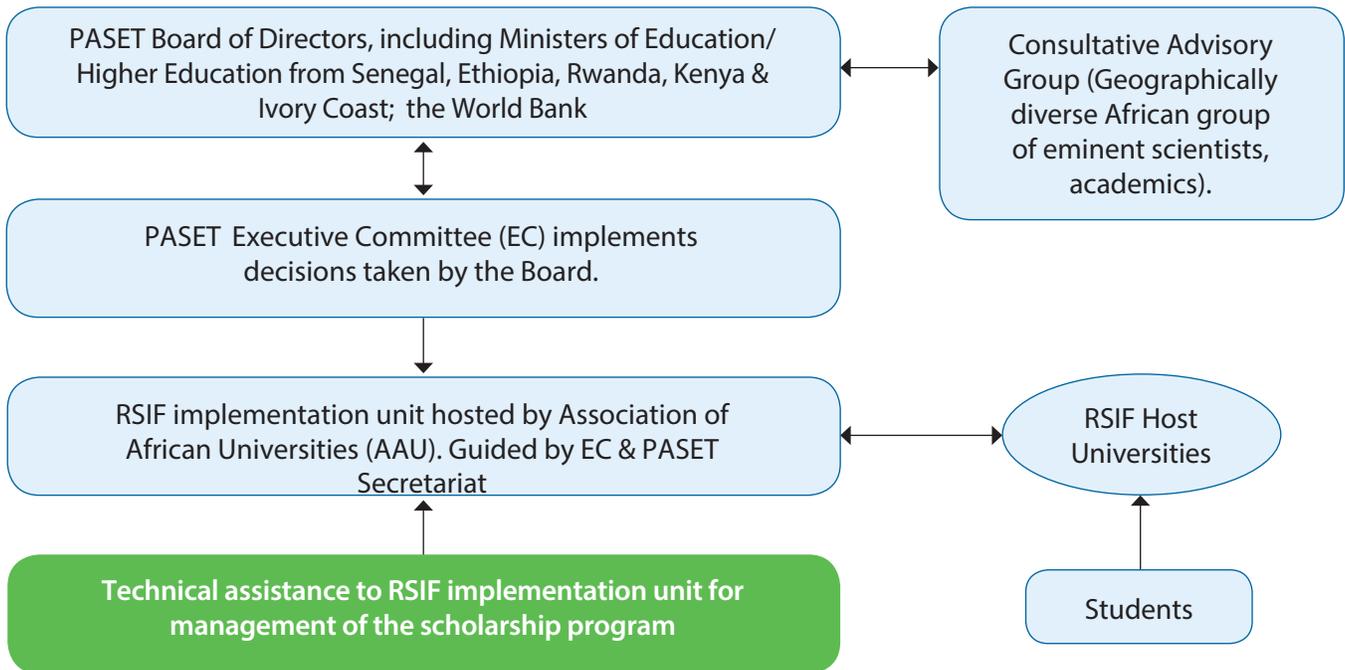
- Establishing eligibility rules, selection criteria, and processes for students and universities.
- Designing the organizational structure and procedures to ensure efficiency and transparency in accordance with global best practices in scholarship program management.
- Laying out clear processes for funds disbursement and utilization.

Why PhD Training in Sub-Saharan African Universities?

PhD researchers are needed to develop new knowledge, products and processes that provide sustainable solutions. They are also needed to adapt existing technology and turn it into marketable goods and services. Countries like China, South Korea and Singapore, who invested heavily in science and technology in the 90's are now reaping the economic dividends. Africa also needs to invest in highly skilled PhDs who will become quality faculty that can develop stronger ASET university programs relevant to its development. The availability of a suitable workforce is a key determinant of where businesses choose to locate. As the number of skilled workforce in the ASET fields rises, more businesses with an interest in these skills will spring up, creating new employment opportunities. Also, teachers in TVET institutions tend to be university graduates, so higher quality of graduates would positively influence the entire education pipeline.

GOVERNANCE

Below is the current RSIF governance structure, which will be supplemented by third-party verification to ensure transparency and meet the highest standards of administrative excellence.



Financing and partnerships

With initial commitments of \$6 million from Senegal, Ethiopia, and Rwanda, PASET is now fundraising from the following potential partners to achieve a target of \$100 million, as well as technical and capacity building support:

Potential financial partners

- African governments.
- Foreign investor firms.
- Africa-focused venture capital and equity funds interested in financing startups and private sector innovations.
- International development institutions, foundations and associations.
- New partner countries.

Potential technical partners

- Foundations and academic institutions in fast-growing economies who can share their knowledge and support capacity building activities (research studies, faculty exchanges, etc.).
- Employers who can contribute to surveys, needs assessments, and/or internship or mentoring opportunities.