



**PASET**

Partnership for Skills  
in Applied Sciences,  
Engineering & Technology

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# **Financing Sustainable Innovation in Africa:**

The PASET Regional Scholarship and Innovation Fund

# The Problem of Innovation in Africa : Limited Demand and Inadequate Supply

## **Limited Demand from Productive Sector : Even when new solutions, new technologies are locally available**

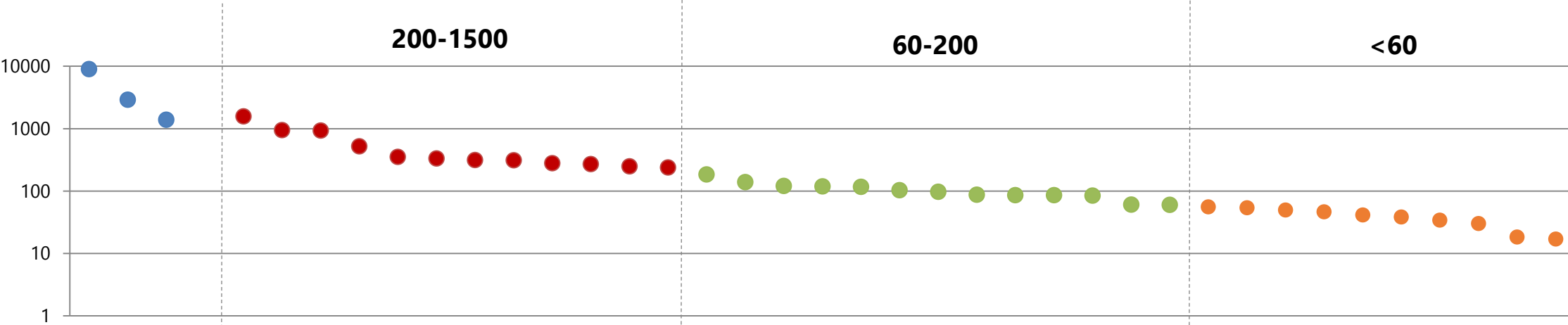
- Local markets not rewarding innovation investments
- Foreign firms tend to have limited connections to domestic suppliers
- Few medium and large firms that can spread new technologies
- Most enterprises are small and in the informal sector, with entrepreneurs who have low levels of education – constrains technology diffusion
- Weak skills base of workers – makes technology adoption difficult

## **Inadequate Supply of High Quality Applied Researchers: Most are not able or willing to work with enterprises**

- University research is not related to problems of enterprises or African problems
- Lack of critical mass of researchers in most countries, especially in science and technology fields



# Only 3 SSA countries have close to 1000 researchers per million inhabitants (Senegal, Seychelles, South Africa) – Vietnam has 1400

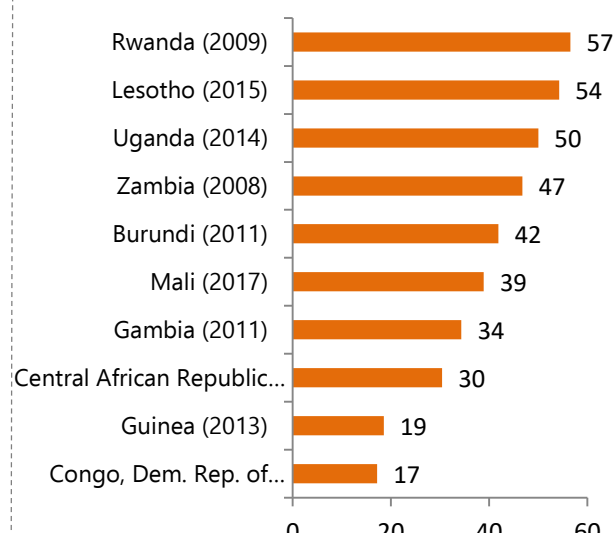
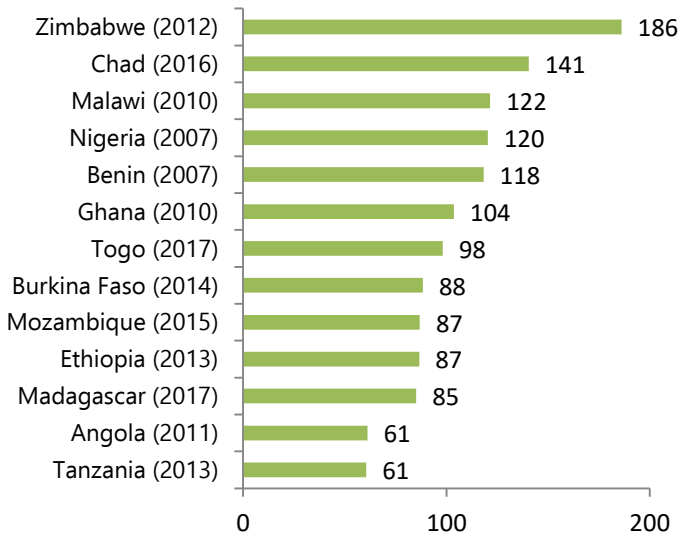
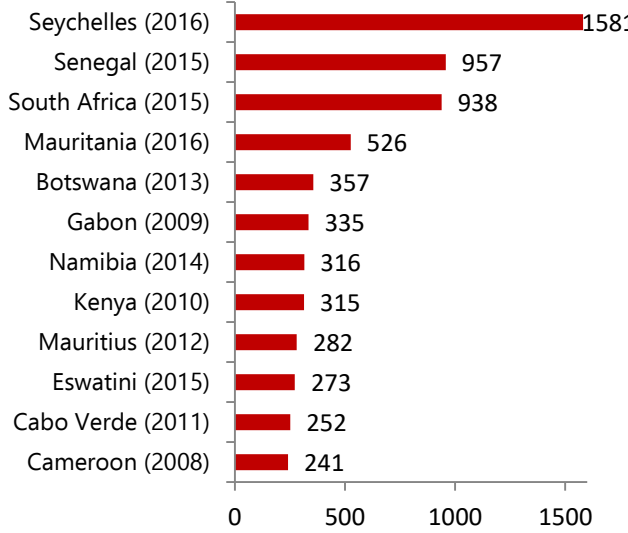


**Comparators**

**Korea (2016)**  
**9072**

**Malaysia (2015)**  
**2925**

**Viet Nam (2015)**  
**1400**



Source: UIS Science, Technology and Innovation Database. Release February 2019. Downloaded April 12, 2019.

# Since 2005, Africa has tried to create a regional fund without success; PASET has designed and operationalized it

- **Consolidated Plan of Action (2005), various AU Summits**  
Moving from concept to operationalization did not occur
- **In 2013, African governments and World Bank created the Partnership for skills in Applied Sciences, Engineering and Technology (PASET)**
- **PASET operationalized a pan-African science fund for the first time**
  - Setting objectives and principles of operation
  - Seed financing from African governments
  - Professional implementation by a regional organization
  - Governance – transparent and efficient
  - Resource mobilization strategy



# PASET Regional Scholarship Innovation Fund : Operationalized 2017, Rapid Growth in Few Years

Launched in 2015 by HE President Macky Sall of Senegal along with representatives of the heads of states of Ethiopia and Rwanda

Today :

- **US\$ 36 million raised from 6 SSA governments, Government of Korea and World Bank.**
- **Commitments made by 5 additional SSA governments.**
- **Mobilization of funds from others**

# RSIF is a unique financing modality with efficient governance

## Pan-African science fund which :

- Pools funds from African governments, donors, private sector and individuals
- Allows targeting of funding to specific sectors and areas
- Provides implementation support by professional regional scientific body, *icipe*
- Has rigorous and transparent oversight with Governance Structure that includes all contributors (see Annex)



ICTs including  
big data &  
artificial  
intelligence



Food  
security &  
agribusiness



Minerals,  
mining &  
materials  
engineering



Energy  
including  
renewables



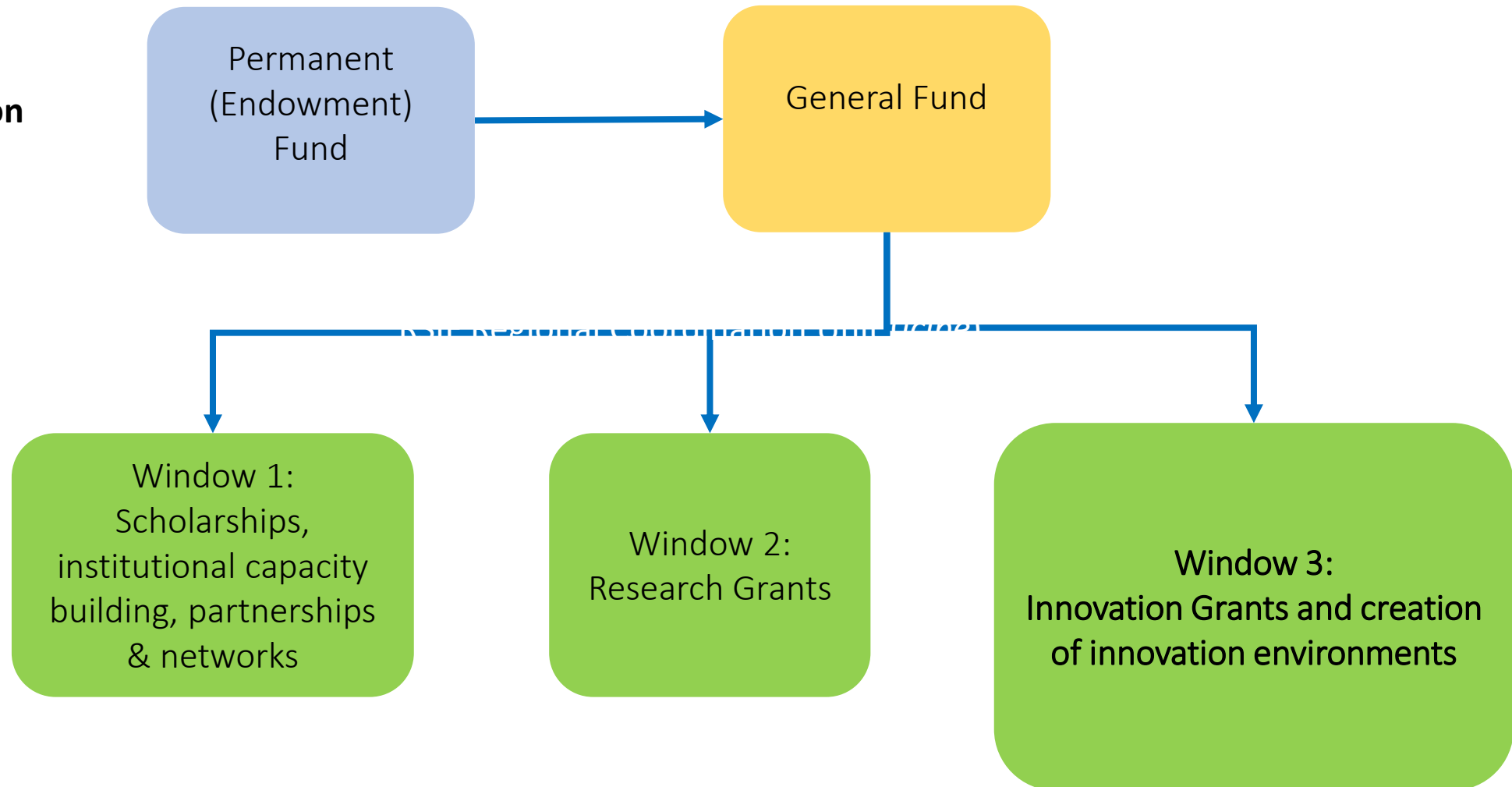
Climate  
change

## RSIF Objectives:

1. Create a stock of **highly skilled scientists, professionals and innovators in applied sciences, engineering and technology (ASET) areas.**
2. Identify and **nurture young talented Africans** to further their studies in ASET fields where expertise needed most
3. **Address imbalances in the number of women and disadvantaged groups** in ASET fields in Africa
4. **Build African university capacity to provide relevant ASET training** and to ensure continued investment in scaling up ASET education and workforce

# RSIF Design: 3 Windows; Endowment and General Fund

**RSIF  
implementation  
unit: *icipe***



<https://www.rsif-paset.org/>

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# How does RSIF Innovation Window work?

- **Highly competitive process of selecting African universities, partnered with international universities**
- **Eligibility:**
  - RSIF host university faculty and students , as well as firms who wish to work with them
- **Competitive grants for commercialization and young innovators** (faculty + students)
  - Pre-commercial activity – explore a technology or business model to see if it can be viable
  - Ideas which are more developed but for which it is difficult to raise private capital
- **Competitive grants for firms to partner with RSIF host universities**
  - Address a problem faced by the firm; co-financing by firm

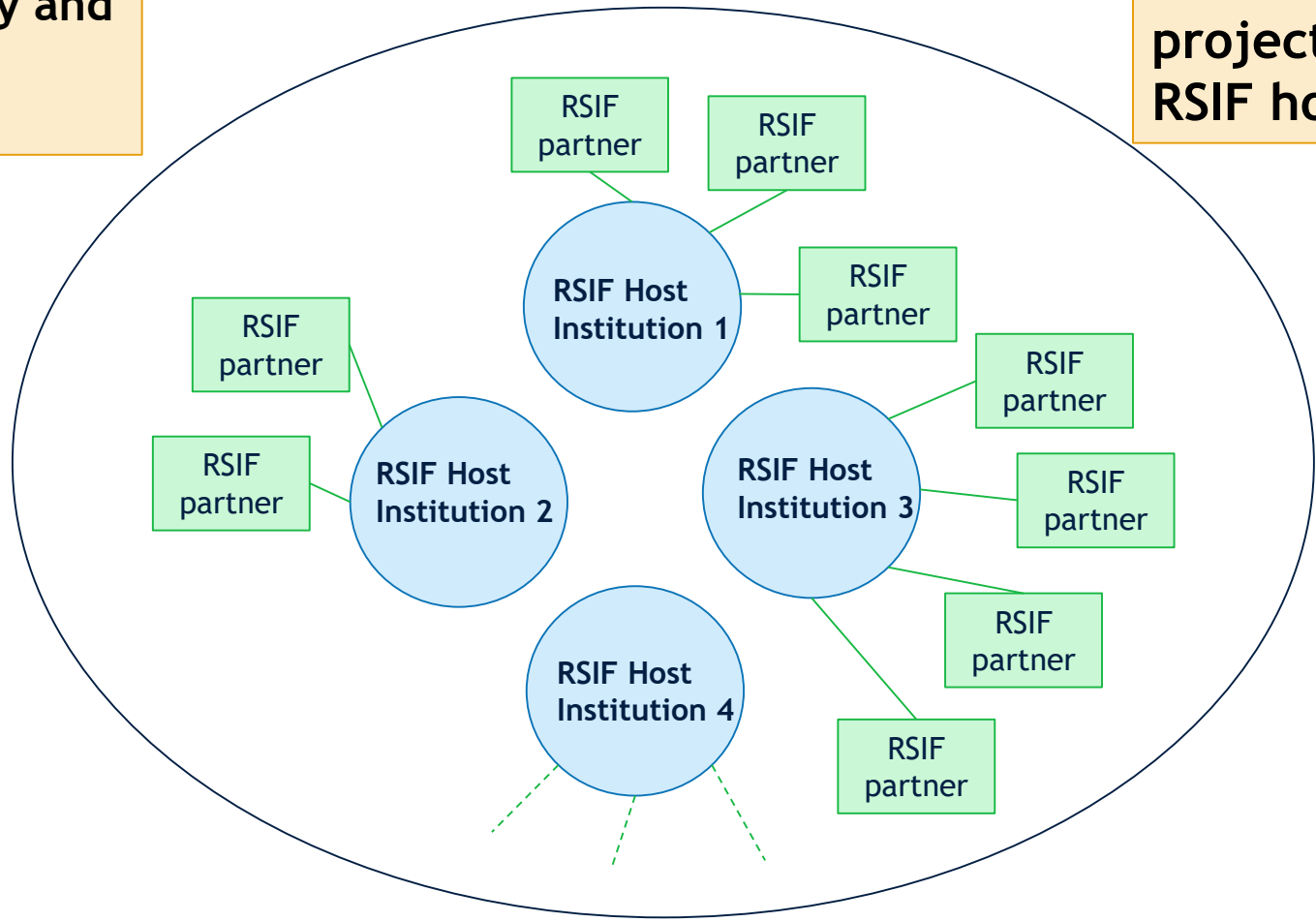




1. Grants to RSIF host university faculty and students to explore business viability of idea

2. Grants to RSIF faculty and students for “developed ideas”

3. Grants for collaborative projects between firms and RSIF host universities



# African governments are taking lead in RSIF, and private sector should join - Build the Science Endowment Fund for Africa

- Contributors can leverage a regional architecture
  - Return on investment is clear with transparent, highly competitive selection process and regular reporting
- Flexibility in funding
  - One or all windows
  - Particular thematic domains or research areas (eg private sector)
  - Small amounts or large amounts
  - Particular beneficiaries (eg women)
- Participate in governance and shaping of program
- Get high visibility in region

The **PASET** Regional Scholarship  
and Innovation Fund



**PASET**  
Partnership for Skills  
in Applied Sciences,  
Engineering & Technology

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

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**Executive Director, PASET Executive Board**

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**World Bank.**

**For information on RSIF:**

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<https://www.worldbank.org/en/programs/paset>

# RSIF Governance Model

