Territorial Innovation Policies & Smart Specialisation: a promising area for Africa-EU cooperation

Towards Africa-led Innovation Strategies for Smart Specialisations?: opportunities and challenges for an innovation-led, sustainable and inclusive development

June 8th, 10h45-12h
CONTEXT

- Sustainable Development Goals (SDGs) → D4: Industry, Innovation & Infrastructure (SDG9)
- 5th Africa-EU Summit (November 2017)
- Joint Africa-EU Strategy (JAES), “For the renewed impetus of the Africa-EU Partnership”
- DG Joint Research Centre (DG JRC): international cooperation for Smart specialisation
- Africa R&I: cf. Background note for the debate (@ S3 Platform http://s3platform.jrc.ec.europa.eu → Section Events EDD)

AIM

- African Territorial Innovation Policies (TIPs)
- Lessons from European & International TIPs/RIS3 experiences
- Towards Africa-EU collaboration/mutual learning for TIPs/RIS3 → Place-based policies for a sustainable and inclusive development
Few definitions

- **Innovation Policies**: public intervention for the generation & diffusion of innovations (new or improved products, processes, marketing/organizational methods, new collaborative modes)

- **Territorial innovation policies (TIPs)**:
  - Foster **capabilities of local actors** - e.g. national/regional learning & innovation systems - + Sustainability in economic, social, environ. & cultural aspects (CEMAT def.)
  - (Innovative) firms, universities & research centres, RTOs, Public policy/institutions, etc.
  - **Examples of Instruments**: Funding and Training for innovation, Clusters, Access to knowledge and innovation sources/networks, support to IP protection (Compendium of Evidence on Innovation policy; Innovation Policy Platform of the World Bank and OECD)
Research and Innovation Smart Specialisation Strategies (RIS3/S3)

- Industrial and Innovation frameworks
  - Guide organisation of R&I resources for industrial & socio-economic transformation
  - Place-based strategies, Mobilization of local resources & entrepreneurs, Learning process
  - Unique comparative advantages

- The steps *(RIS3 Guide, 2012)*
  - Step 1 – Analysis Territorial context/potential (SWOT), entrepreneurial dynamics
  - Step 2 – RIS Governance
  - Step 3 – Vision for the future of territorial development
  - Step 4 – Identification of priorities (mixed approaches)
  - Step 5 – Tailored Policy mix
  - Step 6 – Monitoring & evaluation
RIS3 cooperation: beyond the EU and worldwide


  - Innovation and regional specialisation in Latin America
  - Smart Specialisation in EU and Chile, challenges and opportunities. Towards a transcontinental policy learning dialogue methodology

- RIS3 & Africa? Introductory Note *Smart specialisation in Sub-Saharan Africa: opportunities and challenges* (@ S3 Platform → Events / EDD) – We debate !!!
Questions for debate D4

1. Which governance structures or approaches are needed to guide an effective mobilization of domestic (and non-domestic resources) for the development of Africa-made innovations?

2. Which lessons could be drawn from the RIS3/TIPs experiences in the EU & worldwide for TIPs in Africa?

3. How can the RIS3 approach help African policy makers to leverage on the existing community-led initiatives to design a better tailored support to local entrepreneurs & innovations in Africa?

Special Lab debate D4* - Sustainable Development Goal question (SDG question) : How to enhance the collaborative and mutual learning initiatives between African and European innovation policy stakeholders for the achievement of the SDG 9?

Questions for Audience (3 MCQs & 3 One-word answer Questions) → check the EDD APP
Positional analysis of scientific production in the African Union

• Positional analyses were used to aid in the interpretation of relative strengths and weaknesses of the African Union in science by combining three indicators (volume, quality and effort) of science production in a two-dimensional space. Horizontal axis = specialization index (SI, effort) Vertical axis = quality of publications (ARC)

• Thus, the position of the AU in a quadrant can be interpreted:
  • Quadrant 1 (Top right): specialised and high impact
  • Quadrant 2 (Top left): high impact but not specialised
  • Quadrant 3 (Bottom right): specialised but low impact
  • Quadrant 4 (Bottom left): not specialised and low impact (worst case scenario)

Bubble proportional to level of activity in that field (# papers)

→ Such analyses allow to detect strengths and weaknesses, and to address gaps.

AU profiles in ICT and Enabling and Strategic Technologies is located in the worst quadrant 4 => It calls therefore for urgent actions due to the strategic importance of these fields for today’s economies.
CHALLENGES IN AFRICA AS DRIVERS OF RIS3

• Climate change impact
• Population Growth and progressive urbanization
• Lack of jobs and forced migration
• Political instability
• Lack of confidence and trust in the Public-Private Partnership
OPPORTUNITIES OFFERED BY TIPs

• Focus on a few regional assets
• Possibility to integrate the SDGs and the Sustainable Environment (low carbon economies) in a single strategy
• Human capital development focused on the regional priorities
• Clustering of the four Helix components
• Adapting the managerial practices to the new logic of co-participation and co-ownership
Smart Specialisation Strategic Programs

Selection Criteria

- GOVERNANCE VISION
- Potential Market
- Potential Offer
- Right Time
- Sustainability
- Coordination Failures

Scope
- National
- Meso-Regional
- Regional/Local

Key success factors
- Building trust and commitment
- Common vision
- Technology Roadmap
- Social capital
- Public agencies alignment

The quadruple helix
- Academy
- Companies
- Government
- Consensus
- Common Vision
- Citizens and workers

Carlos Ladrix CORFO
Chilean Smart Specialisation Strategy
Sectors & Platforms

- Mining (tech suppliers)
- Sustainable Tourism
- Healthy and Functional Foods
- Sustainable Construction (includes timber)
- Creative Industries
- Fishing and Aquaculture
- Technologies and Services for Health (e-Health)

- Logistic
- Energy / Water
- Smart Industries and Advanced Manufacturing
- Biotechnology
Example A) South Africa’s RE IPPPP (2011-16)

Renewable Energy Response to National Crisis
- Poor power supply: blackouts (2007-15)
- Limit SA’s GDP growth
- Detriment to SSA regional economy
- Pressure to decrease CO2 emissions

Achievements: Energy
- 5 years: 0%-5% RE (to be 20%)
- R194b invested in 92 projects (6376 MW)
- Answered multiple policy objectives

Achievements: Socio-economic
- Attracted 56.9% of total FDI to SA (2014)
- 70% (cost): 30% (SED)
- R 55 billion (over 20 years) allocated to local communities

Achievements: Innovation and knowledge
- Globally drove RE technology development and brought down costs
- Growth in RE education+ RTD+i
- Positioning SA in SSA to supply power, skills and components, “PPP flagship” (WWF)
Example B) Zenzeleni Networks

Responds to rural needs*
- 93% unemployed, 1 USD p/d, low literacy
- High urban migration - split families
- Communication essential
- But spend 22% of income on communication
- Poor access to basic infrastructure and commodities
- Scarcity restricts improvement of community life, education, health, business potential...

Innovation and socio-economic growth
- Aim to create cheaper voice, internet and phone battery charging system for communities, schools, hospitals, SMEs
- Zenzeleni: partnership of PhD student and community (5 years)
- University provides technology, expertise and RTD+I
- Local community provides essential contextual know how

Achievements
- Direct employment and training of locals
- Indirect multipliers - supporting community growth
- Community led management & reinvestment (i.e. education)
- Cost reductions: Internet (1/10), calls (1/3 & free), battery charging (40%)
- Objective 2019: 10 community, 50 000 people, 20 schools, SMEs

*Mthatha river valley
Conclusions

➢ Two success stories
  ➢ Coordinated national infrastructure intervention addressing multiple policy objectives
  ➢ Localised intervention tailor-made to context and driven by participants

➢ Innovation can alleviate key development challenges & catalyse new opportunities
  ➢ Developing a competitive advantage
  ➢ Provide for basic needs

➢ Examples from SA can inform approaches in many parts of Africa (but one size does not fit all - context matters)

Thank you for your attention!

Sol LUCA DE TENA
sol@reknewable.org