## On-line Training on Science, Technology and Innovation (STI) Policy and Policy Instruments for SDGs for the SADC Region



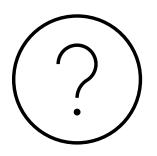
SUSTAINABLE DEVELOPMENT GOALS

**Session 5** Monitoring and Evaluation of STI policies in the context of the SDGs

-key concepts

Kornelia Tzinova 10 December 2021







THE MEASURE OF SUCCESS IS NOT WHETHER YOU HAVE A TOUGH PROBLEM TO DEAL WITH. BUT WHETHER IT IS THE SAME PROBLEM YOU HAD LAST YEAR.

JOHN FOSTER DULLES

## Questions for thoughts

Why quantitative indicators alone are not enough for evidence-based policies?

How contextual factors, governance and implicit policies influence STI Systems?

Why policies and resources are not all we need?

What way forward to build inclusive STI systems?

## Why we need data? Targets and progress made





RIO Indicator: Progress made to R&D intensity targets (EU only)

### **Key issues on M&E of STI Policies**

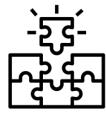
Evidence-based policymaking



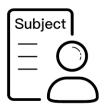
Policy making as a learning process, learning by experience



Monitoring vs Evaluation: two complementary processes



Subject for M&E







### What is an Evidence-based policy?



Inform
policymakers about
"what works" and
thereby produce
better policy
outcomes



Tests theory - why will the policy be effective and likely impacts if successful?



Takes into account the influences outside of the policy that may affect the outcome



Examines both direct and indirect effects that occur because of the policy

## **Monitoring practices**

#### **Quantitative data**

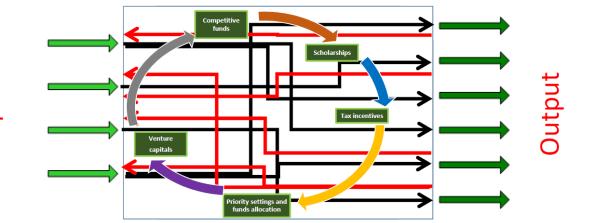
 Measurements approach: inputs and outputs indicators to monitor policies



• Data providing information on the effort devoted to R&D and Innovation and the outputs measured through publications etc.

#### **Qualitative data**

• Need for information on policy instruments, interactions, contextual factors, legal frameworks, coordination mechanisms



Monitoring provides information on where a policy, program, or project is at any given time compared to some baseline or objective and is largely descriptive.

#### **Input indicators**

- •R&D Funding
- R&D Labour force
- R&D Infrastructure
- Foreign Direct Investment



National Innovation system is a black box



#### **Output indicators**

- Patents & Licenses
- PhDs
- Scientific Publications
- Innovations
- •Number of High-Tech Enterprises





## **Evaluation practices**

- For accountability—delivering on political promises
- For advocacy —convincing by using evidence from findings
- For learning purposes —reporting findings to help organizational learning
- For analysis and identifying gaps —seeing what works, what does not, and why
- For building institutional memory
- For multi-stakeholders engagement through a participatory process
- For gaining support —demonstrating results to help gain support among stakeholders
- For building understanding—reporting results to enhance understanding of projects, programs, and policies.

Evaluation gives evidence of why outcomes are or is not being achieved and attempts to provide a causal account.

## **Evaluation Methods**

Quantitative: Costbenefit analysis; Randomised Trials

Case studies; user surveys; interviews; peer reviews; focus groups

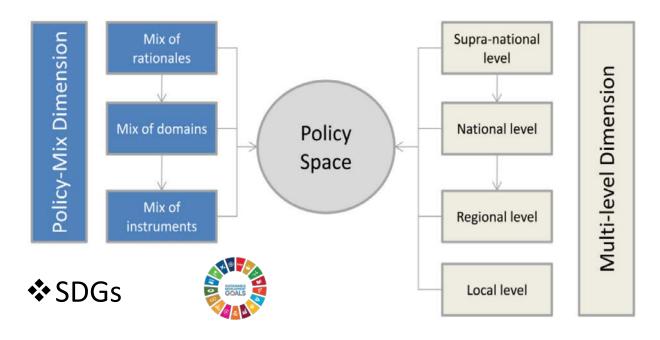


## STI Policy Settings and Implications for M&E

## **Different Paradigms**

❖ Policy Mix





**♦** M&Es





### **Challenges at Monitoring and Evaluating STI Policies**

#### STI Specific Challenges in STI Policies and M&E





Multiple goals



Variety of agents, interactions



Unclear assumptions about innovation models

M&E

- simple cost-benefit ratio of individual measures does not deliver
- more instruments to assess and stakeholders to inform
- Real risk of under-evaluation
- tension complexity / system vs. (simple) accountability

## Key Take away message

M&E is key, it's a learning process, individual and institutional

Monitoring and Evaluation work in tandem

Monitoring for information on where we are; Evaluation for evidence about achievements of outcomes - provides a causal account

M&E has the objective to create virtuous policy cycles

M&E should consider that Policy making is not linear process

M&E framework need to be developed as part of the STI policies

# Thank you



