

# On-line Training on Science, Technology and Innovation (STI) Policy and Policy Instruments for SDGs for Tunisia and the Arab States



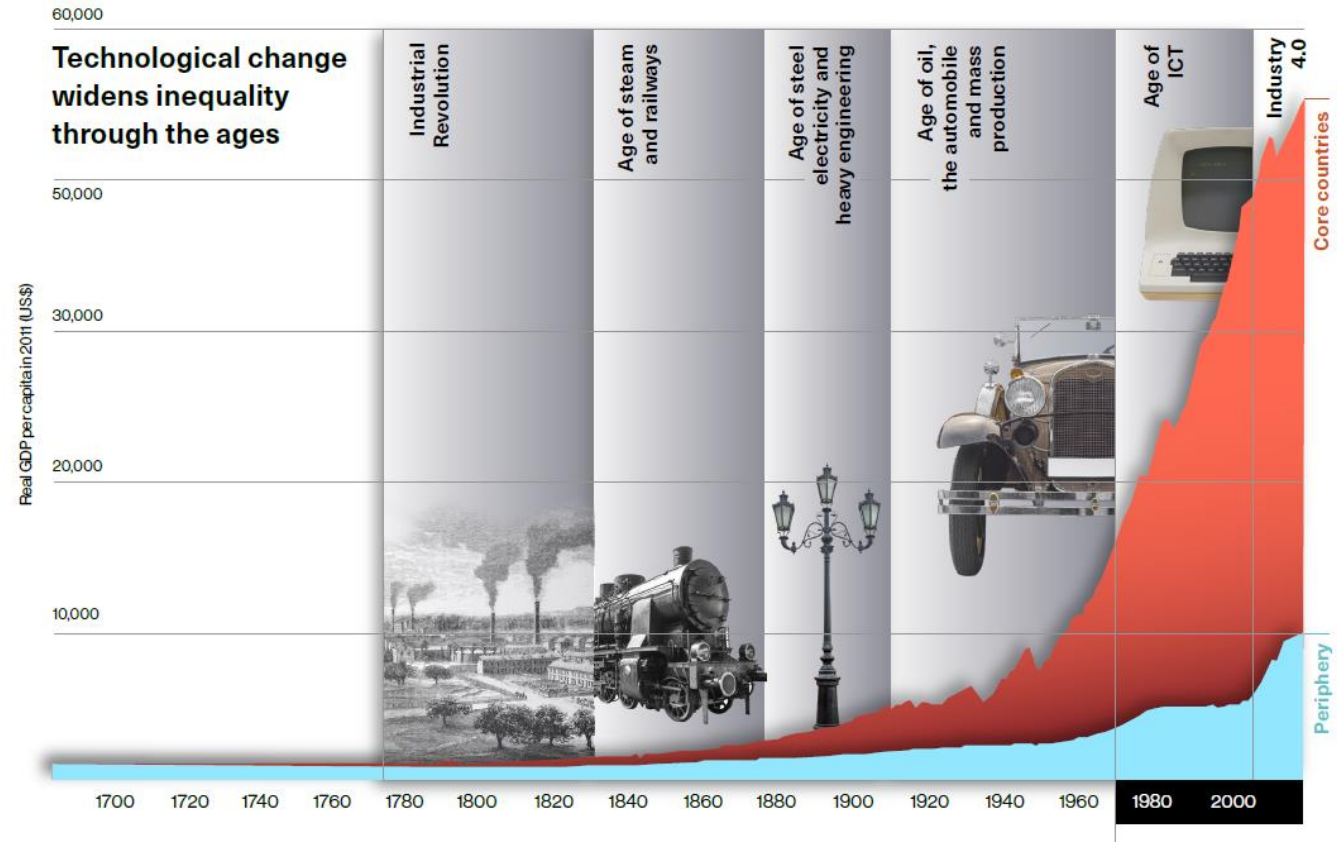
## Session 1 Current approaches to STI policy making in the context of SDGs

-Introduction of approaches to STI policy for SDGs

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# Techno-productives Paradigms



Fuente: Technology and Innovation Report, UNCTAD 2021



unesco

# Global Challenges



EL PAÍS INTERNACIONAL

## El gobernador Rick Scott: "Irma tiene potencial para devastar Florida"

El mayor huracán del Atlántico se aproxima a Puerto Rico tras arrasar Barbuda y Saint-Martin y mantiene la región en alerta roja

PABLO DE LLANO

Miami - 6 SEP 2017 - 16:25 CEST



TE PUEDE INTERESAR

# The Sustainable Development Goals



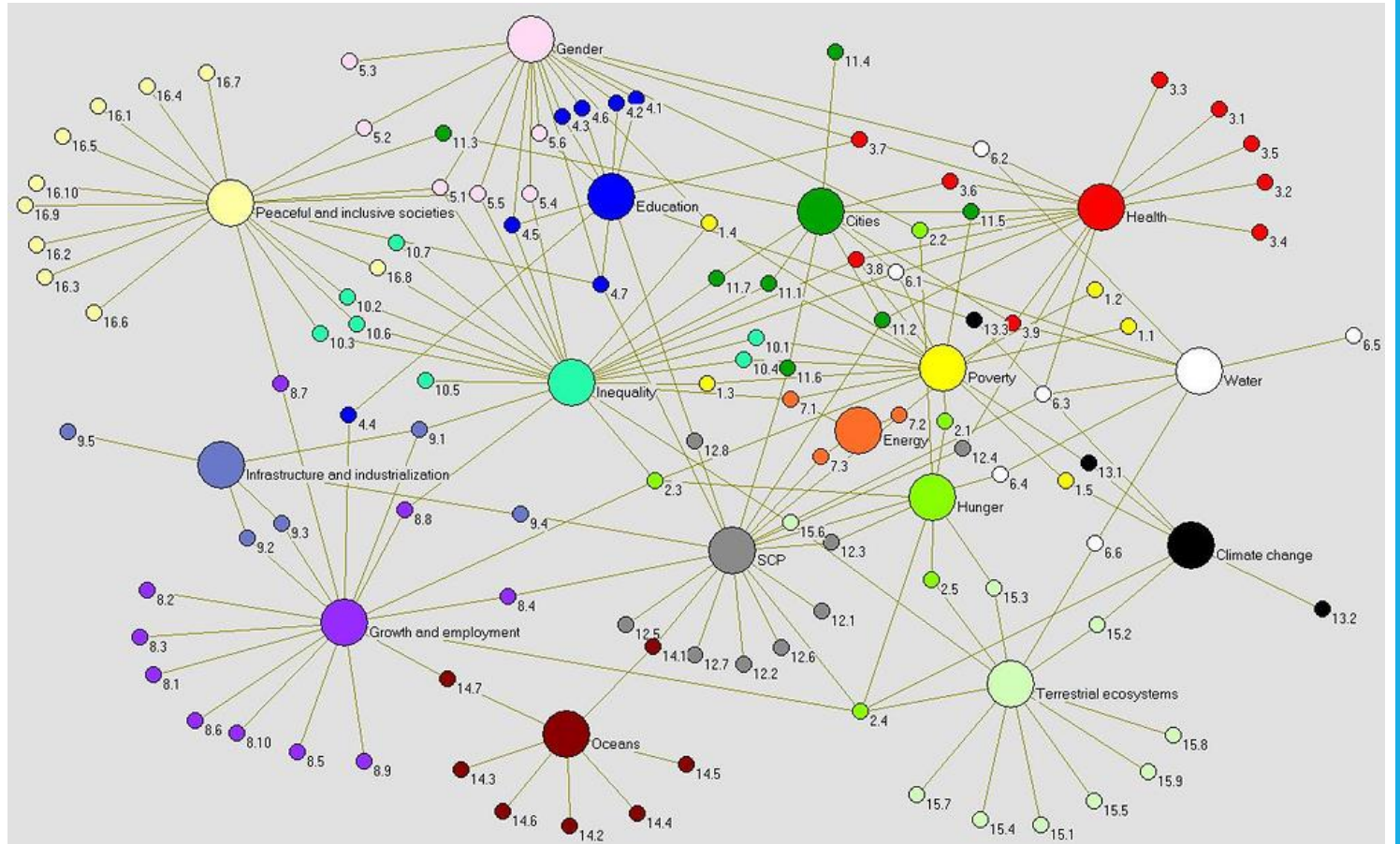
- 17 global goals to eradicate poverty, protect the planet and ensure prosperity for all by 2030

- Accepted by all countries and apply to all

- Everyone has to do their part: governments, the private sector, civil society

- Not legally binding, but governments expected to establish national frameworks for their achievement, monitor and review progress

# Interrelationships between Sustainable Development Goals



Fuente: David LeBlanc (2015). Towards integration at last? The sustainable development goals as a network of targets. DESA Working Paper No. 141.

# STI is systemic

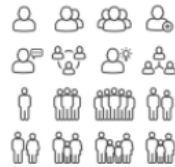
STI play a key role in achieving targets across all SDGs



## Building a Robust STI System requires:



National (Regional)  
STI Systems



Variety of institutions  
and actors



Linkages and interactions



Legal Framework



Exchanges and flows



Varieties of Policies

- STI
- Other policies

# Building STI Policy

Science

Technology

Innovation

Target:

Scientific Community

Dissemination and adoption of a technology

Behavior of agents

Type of objectives:

Quantitative: number of PhDs, scientific publications, patents, etc.

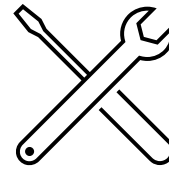
Quantitative: number of households with internet; bandwidth, etc.

Qualitative: Favorable environment; agents' behaviors; etc.



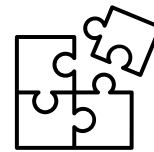
Challenge: Coordinating the system and its objectives

# Intervention theory



## Innovation policy approaches

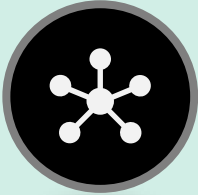
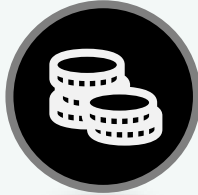


- Traditional approach: failures and systems.



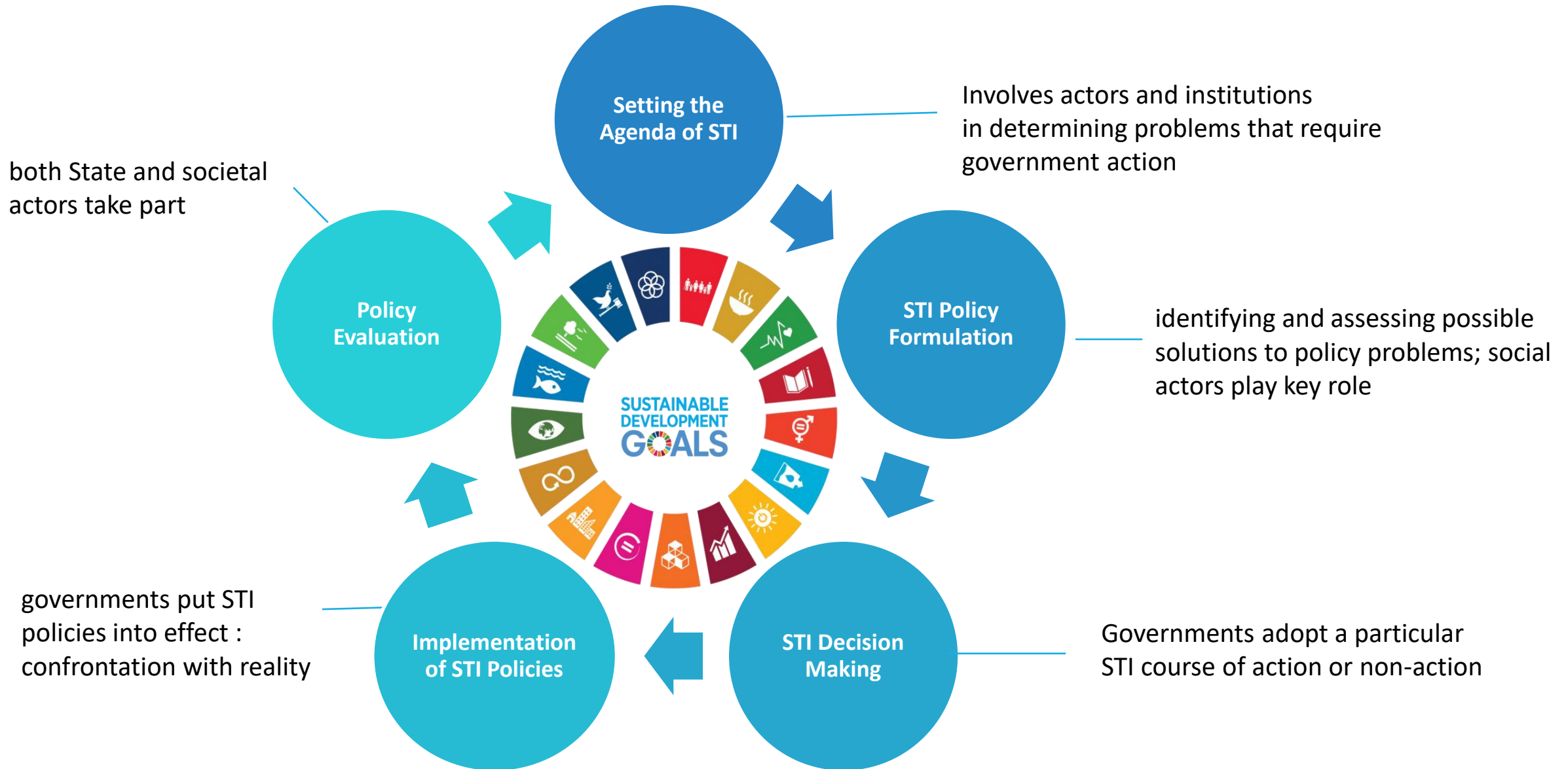
## New policy approaches

- Mission-oriented STI policies (Mazzucato)
- Transformative STI policies (Schot)
- STI policies for inclusion (Sutz)
- Holistic policy (Edquist)



	<b>Missions</b> 	<b>Transformation</b> 	<b>Inclusion</b> 	<b>Holistic</b> 
<b>ADVANTAGES</b>	<b>Focus and portfolio</b>	<b>Deep learning, change</b>	<b>Bottom-up, democratization</b>	<b>Difference between Strategic Policy and Innov Policy</b>
<b>LIMITATIONS</b>	<b>What about the structure?</b>	<b>What about urgent problems?</b>	<b>What about the Frontier of Knowledge?</b>	<b>Systemic approach not very operative</b>

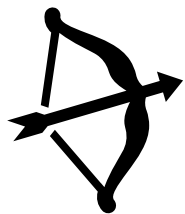
# STI Policy Cycle: participatory processes



# What a STI Policy might want to address?



STI Policy



**Broad goals: Developing research, innovation, science education...**

**National development plans**

**Monitoring and Evaluation**

**Gender and youth**

**Key sectorial priorities**

**Legal framework**

**Governance framework**

**Capacity building**

**Organizational structure (Institutions, Private, Public, Universities, non-Profit)**

**Policy instruments**

**funding mechanisms**

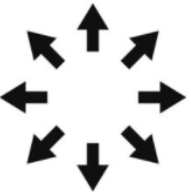
**Regional and international co-operation**



# Other strategic STI policy issues in context of SDGs :



- ❖ STI from a national to an international perspective, cooperation
- ❖ Fostering multi-stakeholder partnerships for investments in STI for SDGs
- ❖ Transition to Open Science: Open Access to Data and Knowledge, Open Infrastructures, Citizen Science.. more transparent and accountable to society
- ❖ Science Diplomacy
- ❖ Giving directionality in STI policies to focus of STI related targets of the SDGs
- ❖ Inclusive STI policies, gender, indigenous knowledge
- ❖ Monitor and measure contribution of STI to SDGs implementation with improved STI indicators

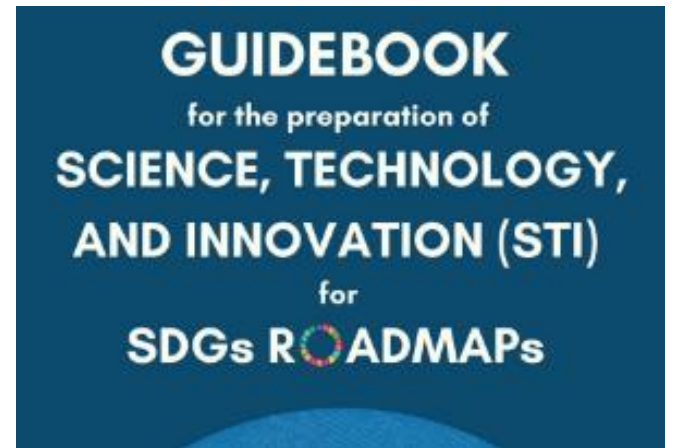


STI Policy

# The UN-Inter-agency Task Team (IATT) Guidebook: Example of Framework



Framework for developing STI for SDGs roadmaps as a series of six sequential steps



# Questions for thoughts

How to meet goals of environmental sustainability and at the same time economic growth?

How to reframe STI policy from a unique economic rationale to SDGs perspective?

How to align STI governance structures to the global SDGs framework? (policy advice, steering and funding, co-ordination, and evaluation and monitoring...)

What priority areas for action to embed SDGs within STI policy frameworks?

How to define directionality and concrete mission goals responding to environmental and societal needs within STI policies?

What frameworks for STI are needed for inclusion in decision-making?

# Thank you

