

**United
Nations**

2022-2023 Inter-Sessional Panel

Ensuring Safe Water and Sanitation for All: A Solution by Science, Technology, and Innovation

UN CSTD Secretariat

26 November 2022

PERSISTENT CHALLENGES

SDG 6 CLEAN WATER AND SANITATION



6.1
26%
2bn people

of the world's population lacked access to a safely managed drinking water service in 2020

6.2
46%
3.5bn people

of the world's population lacked access to a safely managed sanitation service in 2020

6.3
44%

of the world's domestic wastewater is not safely treated

6.4
2.3bn

people lived in countries classed as water-stressed in 2021

6.5
107

countries are on track to fail to have sustainably managed water resources by 2030

6.6
20%

of the world's water basins are already experiencing rapid changes in the area covered by surface waters

INEQUALITY

Regional

safe drinking water service coverage

Europe &
North America

96%

Sub-Saharan
Africa

30%

LDCs

are home to 1 in 2 of the people
without access to basic drinking water services



Urban

86%

62%

access to
drinking water
sanitation services



Rural

60%

44%

CLIMATE CHANGE

Water scarcity

Already affects
40% of the global
population

and will only

increase
with climate change

Extreme weather events

Are already affecting countries and
populations worldwide.

drought and

floods



STI's contribution to achieving SDG 6



Innovation is not just technological:
real and lasting impact requires

Policy & Governance
Process
Social
Technological

innovation

Technological and innovative solutions enhancing accessibility to safe water and sanitation

- ❖ Easy and low-cost water treatment and delivery
- ❖ Innovative sanitation facilities and waste management
- ❖ Data gathering and forecasting for water security and sanitation



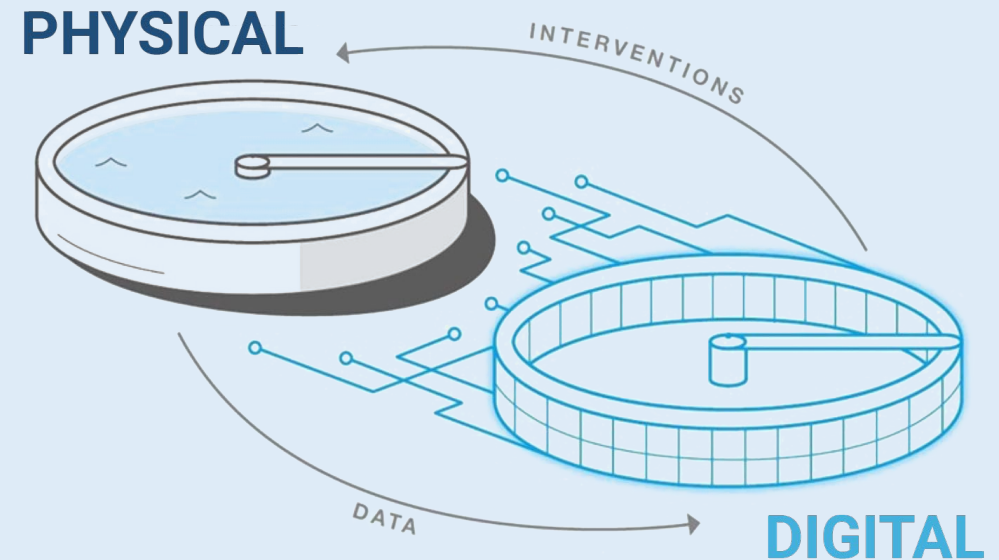
Technological and innovative solutions enabling integrated water resource management

- ❖ The Water–Energy–Food Nexus
- ❖ Empowerment of women
- ❖ Social innovation



Technological and innovative solutions frontier technologies for water and sanitation

- ❖ Drone technology
- ❖ Artificial Intelligence, Big Data, and internet of things
- ❖ Satellite based solutions
- ❖ Digital twinning

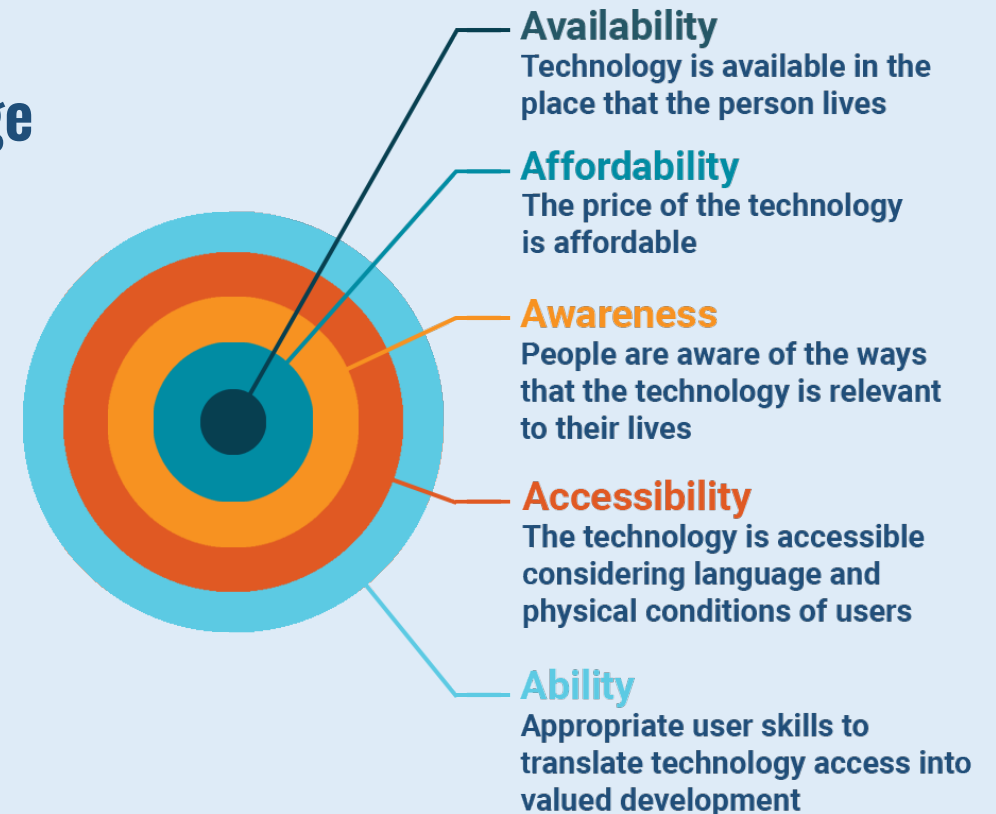


Translating STI into real-world impact

Scientific and technological research and knowledge on water and sanitation continue to increase.

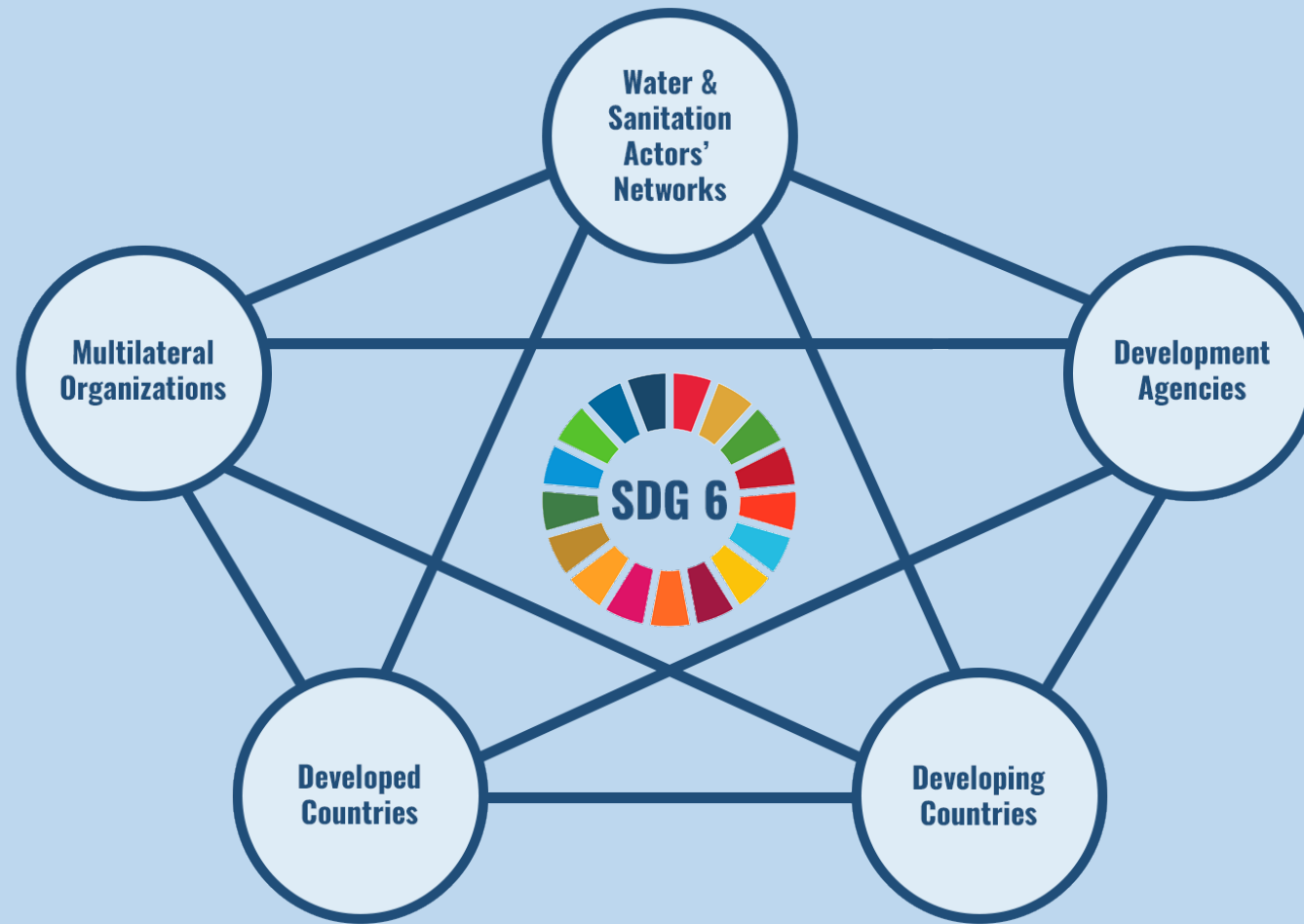
These developments underpin strides in innovation and technological developments which have the potential to powerfully assist us in the attainment of SDG 6 targets.

But they must be appropriate to the situation and fulfil the 5As of technology access.



International collaboration

Knowledge and technology sharing



Policy recommendations

Stakeholder engagement, support, and cultivation

Gender-focused policies

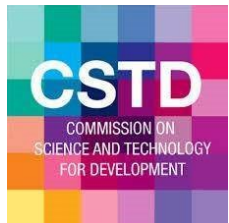
Cooperation in knowledge and finance

Support for concrete solutions



5 GENDER
EQUALITY





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Thank you

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