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Priority Theme 1:

Science, Technology and Innovation (STI) for the Post-2015 Agenda

Padmashree Gehl Sampath
Chief, Science and Technology Section,
CSTD Secretariat, UNCTAD

Structure of the presentation

1. Introduction

2. The important role of STI in development:

    1. Poverty, inequality and sustainability

    2. Linking STI capabilities to these fundamental challenges

3. Taking stock: A decade of CSTD Work

(1)STI for the MDGs & bridging the technological divide;
(2) STI to meet social goals, such as health, agriculture, and energy;
(3) STI for capacity building, particularly through education & research;
(4) ICTs & the digital divide;
(5) Impact of new technologies on development.

4. Looking Ahead. STI and the Post-2015 Agenda and beyond.

2 – STI is critical

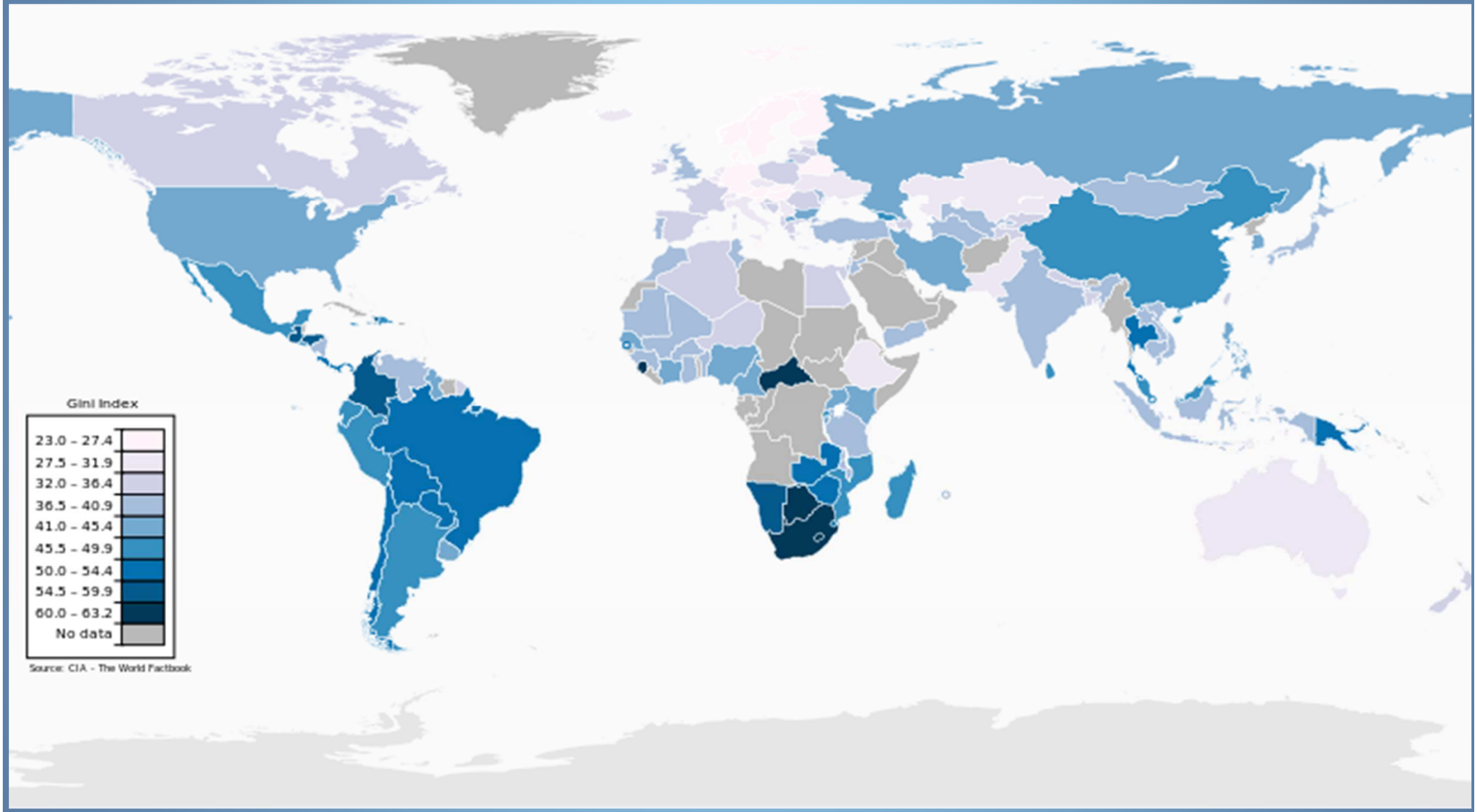
to address all the important challenges of current times:

- ***Poverty:*** Multidimensional poverty is reflected in many areas of daily life, which STI can influence.

- ***Inequality:*** Inequality shows us whether development is inclusive or not (Sen, 1992). Not only do horizontal and vertical inequalities matter, access to resources shows us if development is inclusive.

- ***Sustainable development:*** Is it sustainable as opposed to development, or are there ways to balance the sustainable with the development process of countries.

The Gini as a measure of inequality



There are three main ways in which STI capabilities link to these challenges:

1. STI and the public goods dimension:
- Science education, access to knowledge and implications for tertiary education
- STI and key challenges
(a) Agriculture and food security
(b) Health and access to medicines
(c) Access to energy

2. STI serves as a crucial driver of rising prosperity and improved national competitiveness.

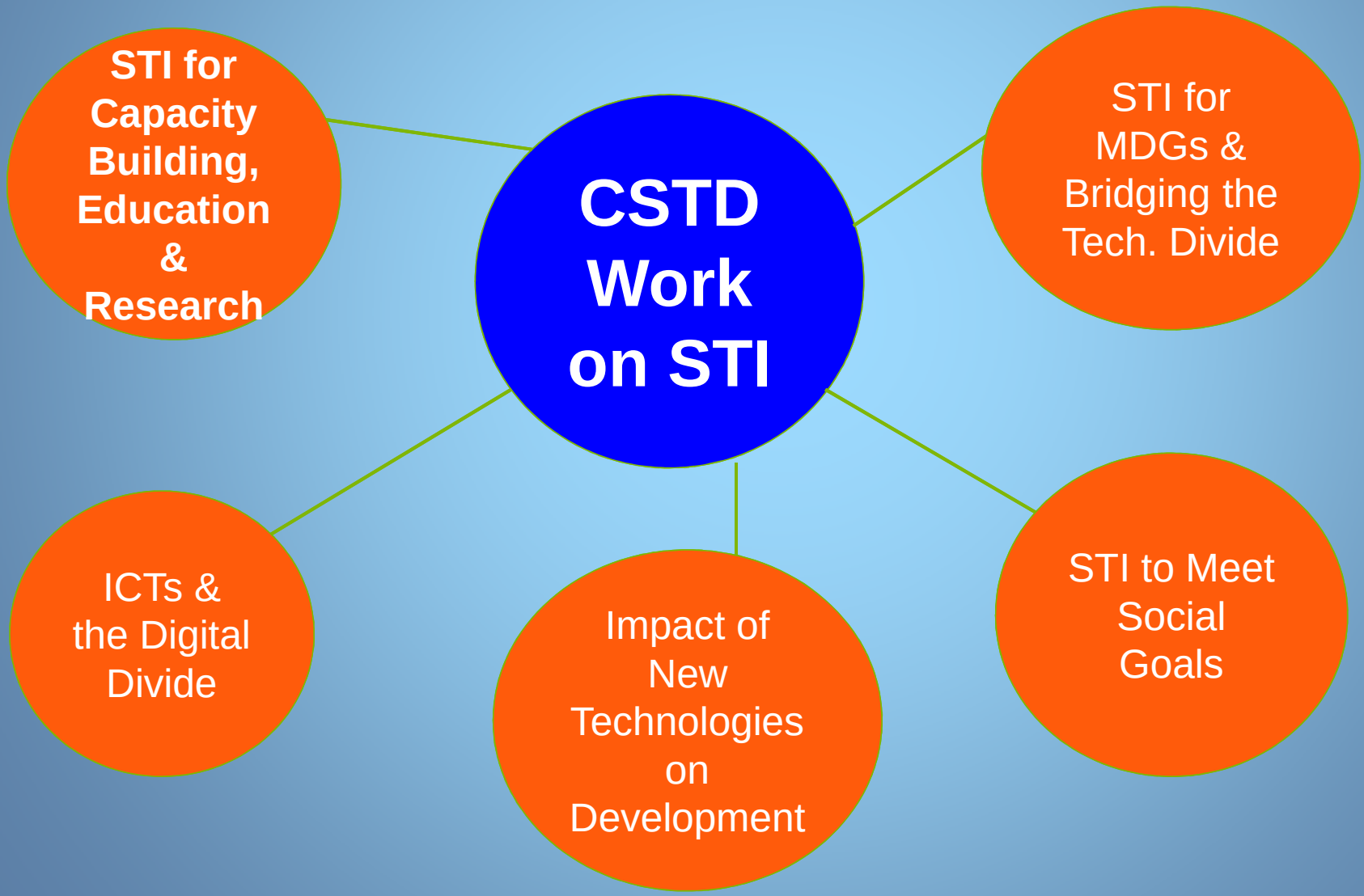
3. Technology and innovation capacity have a critical developmental dimension.

Science, technology, and innovation must be understood not just as technologies but as sociotechnical systems

Taking Stock of a Decade of CSTD Themes:

- The CSTD has been a pioneer in pointing attention to these inter-linkages over the past decade.
- Need to integrate research and policy insights and communities better on this topic – sharing within and outside.
- Demonstrate the synergies between technology, innovation and sustainable and inclusive growth, and bring it to bear on the current reflections on whether the MDGs have, and how they have, delivered.

3. Taking stock: a decade of STI issues in the CSTD



3.1a - STI for the MDGs, and bridging the technological divide

The CSTD was one of the first forums in this regard and considered critical issues of:

(a) Improving the policy environment for the application of science and technology for development by identifying potential risks and benefits of new and emerging technologies.

(b) Strengthening basic and applied research in developing countries and international scientific networking.

(c) Strengthening technology support institutions and science advisory mechanisms; building human capacity.

(d) Promoting universal Internet access at affordable costs and building strategic partnerships in the field of science and technology for development and capacity building for competitiveness.

3.1b - STI for the MDGs, and bridging the technological divide

The CSTD concluded as part of its recommendations that:

(a) Bridging the technological divide calls for innovative strategies for new technologies and existing technologies.

(b) Policies and capacity building efforts are needed to stimulate the diffusion and the effective usage of technological diffusion in countries.

3.2a - STI to meet social goals, such as health, agriculture, gender and energy

The CSTD considered the potential of STI in several main areas:

(1) New and emerging renewable energy technologies for sustainable development

Conclusions were:

(a) International organizations should continue to provide technical assistance in promotion of RETs.

(b) Balancing trade & IP regimes for tech. transfer of new & emerging RETs.

(c) International efforts should actively support North-South and South-South cooperation in the development of RETs

3.2b - STI to meet social goals, such as health, agriculture, gender and energy

(2) The role of technology and innovation in sustainable agriculture

Conclusions were:

a) National innovation coalitions and innovation platforms are needed around particular technologies.

b) Attention needs to be paid to all components of agricultural innovation systems including R&D, extension, credit, infrastructure and institutions.

c) Resources spent on promoting R&D should be linked to local demands for specific products.

3.2c - STI to meet social goals, such as health, agriculture, gender and energy

(3) STI and sustainable cities:

a) STI is very pertinent to address the urban divide: a term that denotes the gap between the “haves” and the “have-nots” within cities.

b) Cities across the world (developed and developing) are increasingly leveraging a broad array of STI options to address urbanization challenges.

c) STI is not only about high-tech: Low-tech and innovation can be implemented in harmony with high-tech, according to the needs of rapidly growing cities.

Substantive work outside of the priority themes on STI and gender.

3.3a – STI for capacity building, particularly through education & research

On STI for capacity building, the CSTD considered:

(1) Deployment of science & technology for development

Key recommendations focused on the need to build:

a) Building indigenous capabilities through absorptive capacity

b) Coordinating STI-related policies cross various sectoral/ministerial mandates, including education, trade, industry, *health, agriculture, energy, and environment*.

c) Sharing of experiences and lessons between international organizations and involving national counterparts from the participating countries.

3.3b – STI for capacity building, particularly through education & research

(2) Technology transfer for mutual advantage, entrepreneurship and collaborative development:

- ICTs play a key role in leapfrogging.
- New opportunities for technology transfer include knowledge brokering and linking tech transfer clearly to certain goals such as entrepreneurship.
- Extension of global innovation infrastructure to all countries should become a critical issue in discussions.

(3) mutual interaction and dependency of science & technology education and R&D

- Improving STI education to promote skills creation is important for capabilities.

3.4.a. ICTs and the digital divide

ICTs have been an extremely important theme in the CSTD debates:

a) Promoting the building of a people-centered, development-oriented and inclusive information society, with a view to enhancing digital opportunities for all people;

b) Development-oriented policies for a socio-economic inclusive information society that provides access to information and communication infrastructure in an enabling environment; and

c) Measuring the impact of ICTs for development.

3.4.b. ICTs and the digital divide

Main conclusions include:

a) Measures of bridging the digital divide need to go beyond simply providing access to quality of accecss.
b) At the national levels, ICTs development requires a multithematic perspective and coherent national policies.
c) ICTs infrastructure is not an end in itself, its role and contribution to economic and social development needs to be explored.
d) ICTs development should be viewed as part of the national innovation systems in developing countries.

3.5a New & Emerging Technologies for Development

The CSTD has considered the following issues on new & emerging technologies for development:

(a) Sharing the wealth of knowledge: open access & virtual science libraries

(b) Linking education, development & ICTs

(c) Geographic information systems (GIS) to enhance education

3.5b New & Emerging Technologies for Development

Main conclusions include:

1. ICTs can enhance education when combined with efforts to facilitate human development in related areas, such as ICT literacy training, curriculum reviews and maintaining teaching quality.

2. Open Access and virtual science libraries are two ways in which ICTs can be harnessed to overcome barriers to the building and dissemination of the global stock of knowledge, particularly in developing countries.

3. Geographic information systems (GIS) to enhance education – long term impacts on society & policy-making.

4. Looking Ahead: STI and the Post-2015 Agenda

How do we frame STI as a core issue for sustainable development? - this involves three related approaches:

- STI for addressing basic needs;
- Promoting entrepreneurship, including grassroots entrepreneurship; and
- Promoting inclusive growth by building STI capabilities.

Past work is highly relevant to ongoing discussions:

- Bridging the technological divide
- Strengthening collaboration between primary and secondary education leadership and tertiary education institutions
- Raising the educational levels of the general population, including strengthening basic skills in mathematics and science.
- Using STI as a means to overcoming unequal access to resources
- Using STI as a means to promoting social objectives in agriculture, health, energy, gender, urbanization
- Incorporate sustainability into scientific education at all levels.
- Promoting technology transfer with particular end goals in mind

Contextualizing CSTD's Work in the Post-2015 Agenda

Key issues being discussed include:

- Financing the acquisition of technological know-how and innovation capacity.
- Incentives: Where markets are not strong, additional approaches are needed to bridge the gap.
- Information: Data covering the three pillars of sustainable development needs to be collected, harmonized, managed and integrated in a more coherent way.
- Partnerships and their role as a vehicle to overcome these market failures.

Articulating the CSTD's Role beyond 2015:

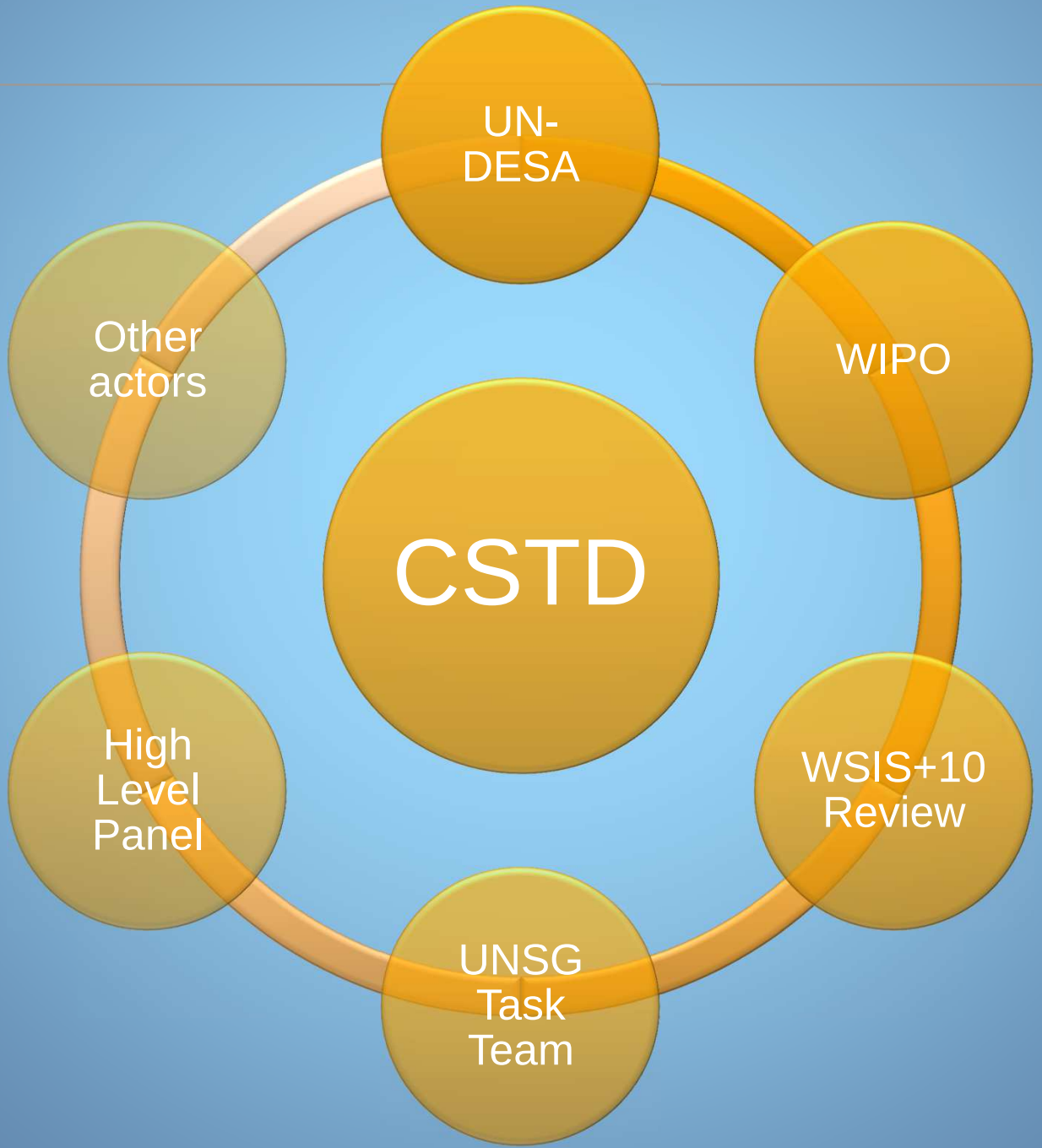
Looking beyond goals to a holistic approach to development, by:

(a) What will be the nature of the technological divide (what technologies, what barriers will define the future)

(b) Identifying the major trends that will define development (infrastrucure, urbanization, food security, energy and climate change)

(c) What STI debates can help to strengthen the capacity of countries to deal with this?

Positioning CSTD within the current international architecture



Thank You