UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
UNCTAD

Theme II
ICTs for inclusive social and economic development

Report of the Secretary-General

17th Session of the CSTD

UNITED NATIONS

Anne Miroux
Director, Division Technology and Logistics, UNCTAD
Head of the CSTD Secretariat

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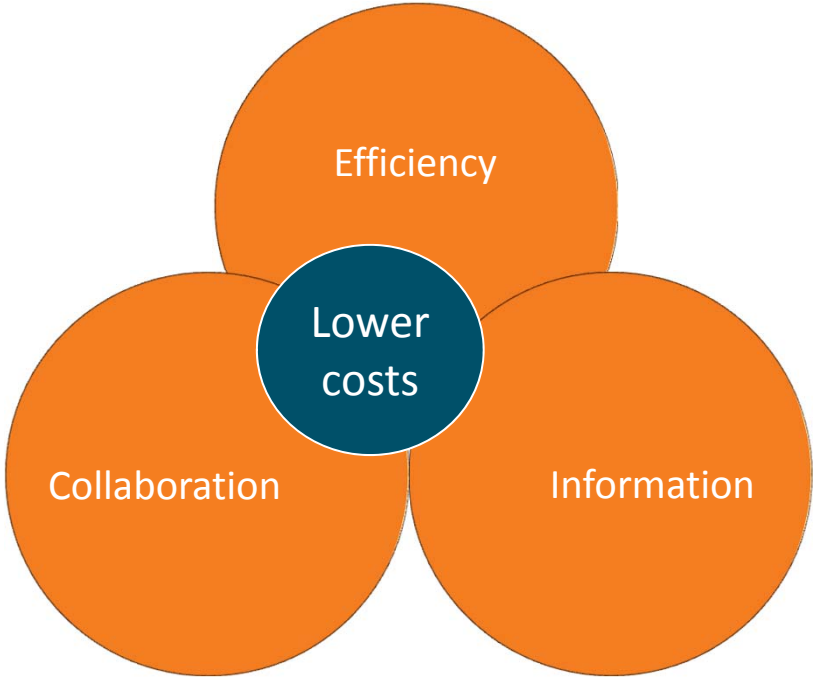
Opportunities arising from ICTs

- ICTs enable greater efficiency in economic and social processes, enhance the effectiveness of collaboration between different stakeholders, and increase the volume and range of information available to people, businesses and Governments.



Changing nature of ICT

Recognized through 5 trends

- Progress towards universal mobile access
- Transition to broadband
- Cloud Computing
- Mobile Internet and applications
- Social networking and user generated content

Emerging trends

Increased capabilities in

- Computing
- Data
- Communications

Leading to

1. Datafication
2. Big Data
3. Cloud computing
4. Internet of Things
5. Smart systems

Potential impact of emerging trends

- Datafication
  - The process by which data become the critical resource and determinant of performance in business and government activity, across entire economies.
- Big data
  - Improving short-term decision-making and long-term development planning.
  - Open data: Participation in decision-making
- Cloud Computing
  - Better data analysis, maximising information access and interaction between governments and citizens.
- Internet of Things
  - Monitoring natural resources for improved intervention.
- Smart Systems
  - More efficient exploitation of water and energy resources.

Datafication

The term datafication describes the process by which data become the critical resource and determinant of performance in business and government activity, across entire economies.

Trends:

- Data management provides new avenues to engineer business success.
- Often also increasingly significant in government processes.

But:

- Depends on more than technology.
- Calls for organizational change (delayering, retraining, restructuring of supply chains).

Big data

- The ability to store and analyse much larger quantities than before.
- Can be used at macro and micro levels.
- Can improve the quality of both short-term decision-making and long-term development planning.
- Open data can extend participation in decision-making

Examples*

- **Canada**: Researchers detecting infections in premature babies before symptoms appear
- **Google**: Tracking outbreaks of seasonal flu early on using archived records of Google searches.
- **Urban usage**: Database on buildings in NYC used to identify and reduce fire risk

*Source: 'The Rise of Big Data'. Foreign Affairs Magazine.

Cloud computing

- Cloud computing is a model of computing in which data and applications are held in large data centres rather than on users' terminal devices.

- Enhanced data-handling and analytical capacities contribute to the quality of data analysis

- Cloud-based interfaces provide innovative ways of maximising information access and interaction between governments and citizens.

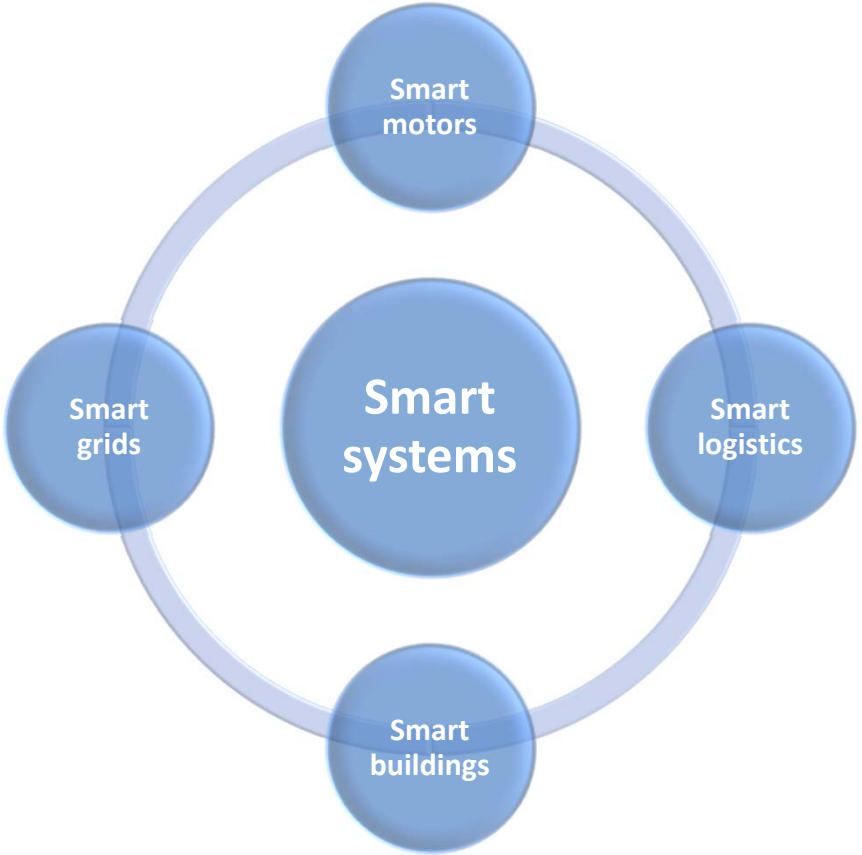
The internet of things

- The extension of connectivity beyond people and organisations to include objects and devices used in government, business and daily life.
- Sensor-driven data sources already contribute to monitoring and decision-making.
- Potential for enormous increase in data generation and retention, with associated risks related privacy and surveillance.

Image source:
http://blog.smartthings.com/iot101/what-is-the-internet/

Smart systems

- Industrial, administrative and other processes which make use of the capabilities of ICTs to produce and distribute goods and services more efficiently, and enable more efficient consumption of those goods and services.
- Several systemic features
- Economic, environmental and social gains (E.g. in the case of renewables, smart grids help to improve connectivity.



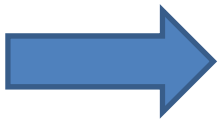
Smart systems

- ICTs have had a profound impact on all three pillars of sustainable development:
  - Economic,
  - Social and
  - environmental.

- Sometimes these impacts have been negative.

Constraints on impact

- A number of constraints hamper countries from fully leveraging the positive impacts of ICTs :
  - Availability, affordability and reliability of infrastructure
  - Human and institutional capabilities
  - Quality of legal and regulatory framework
  - Financial resources



While the value of ICTs to all is recognized, its benefits may not accrue (do not accrue) to all

ICT and economic and social inclusion

- Pervasiness of ICT in the economy and society

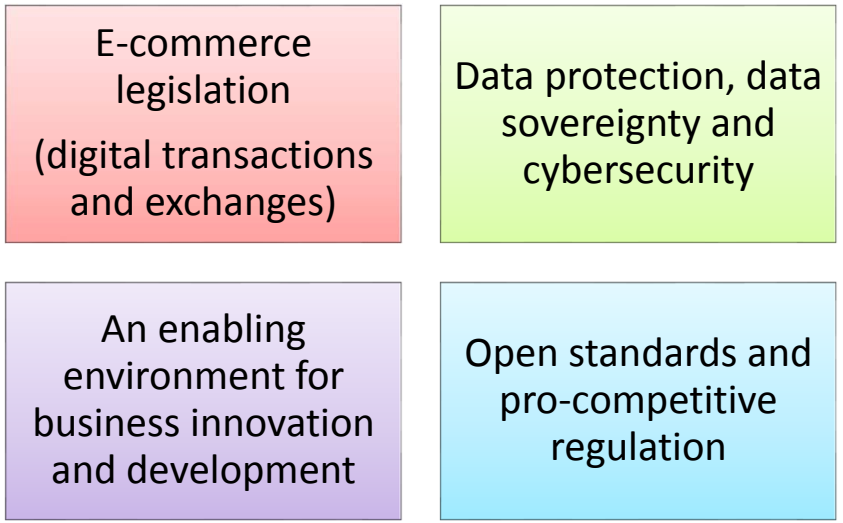
- The challenge of inclusiveness has been at the heart of the "ICT for Development Policy making" :
  - increased opportunities, but increased risks of marginalization
  - spaces of exclusion remain

If constraints are not tackled, the gap in terms of ICT impacts will worsen between and within countries.

Policy implications: enabling infrastructure and legal environment

- A holistic approach
- Infrastructure (affordable and reliable networks). This requires investment, preferably from the private sector, but IFI and PPP support is likely to be needed in LDCs and other contexts.
- Governments need a thorough understanding of their national communication and development environment

- Need to pay attention to the enabling legal environment:



Policy implications: the wider development dimension

- ICT4D issues need to be construed as an essential aspect of inclusive development policy.
- Convergence of ICT4D and post 2015 development agenda
- Towards a realistic and systematic integration of ICTs within the post 2015 development agenda.

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Thank you

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