Digital Transformation can be described as a new ICT ecosystem for things, machines and Artificial Intelligence (AI), which has a tremendous effect on all sectors and daily lives, providing on-going business opportunities, enhancing delivery of public services, while improving the way citizens interact with their governments.

To achieve this desirable transformation, policy makers and regulators play a major role that promotes competition, foster continued technological and service innovation, and encourages investments in broadband infrastructure, services and new technology applications.

The role of Governments (policy makers) and Regulators can be described through the following major points;

I. Emerging Technologies (M2M, IoT, AI, 5G…etc.):

Governments and Regulators should work together to;

- Encourage entrance of Emerging technologies in their countries.
- Prepare healthy and proper environment for these Emerging technologies.
- Prepare secure and reliable ICT infrastructure and access to and delivery of digital services.

II. Economic and business approaches:

Governments are required to:

- Support SMEs through reducing barriers to entry such as complicated Licensing regimes, taxation regimes, and by supporting Intellectual Property rights, Business Incubators, and Economic Incentives that are necessary for Economic and Business development.

- Support Economic and business approaches for the different elements in the value chain through applying Free Market Principles and reducing market intervention by the regulators, unless there is a market failure or special
requirements concerning scarce resources (Numbering, Spectrum and Right of way).

III. Regulatory frameworks for Digital Transformation:
This requires:

a) The governments (as policy makers) to identify new collaborative approaches, developing cross-sectorial digital policies and strategies, and defining innovative regulatory tools and sandboxes. For Example,

- Drafting Law(s) related to General Data Privacy and Security, Cyber-Security that are necessary for all Emerging Technologies (AI, IoT, 5G, M2M …etc.).
- Require regulators to modify licensing regimes to cope with all Emerging Technologies (AI, IoT, 5G, M2M …etc.).
- Work with other Utilities Governmental Authorities, such as; Power, Electricity, Water, Sewage, and Transportations, and other supportive Ministries such as; Finance, Planning, Municipalities …etc.

b) The regulators to work on and modify the Regulatory Tools Kits to cope with this Digital Transformation. The Regulatory Tools Kit includes the following regulations that are required to facilitate the introduction of new services and the reduction of barriers to entry for the new Emerging Technologies (M2M, IoT, AI, 5G …etc):

1. The National Numbering Plan.
2. The Interconnection Regulations.
3. The Licensing Regime.
4. The Spectrum policies.
5. The Quality of Service Regulations.
6. Consumer Protection Regulations in terms of data privacy and security.
7. Conformance and Interoperability requirements regarding approving genuine (AI, M2M, IoT) products and avoiding counterfeit products.
8. Telecom Network Security, which is considered to be one of the most important issues in the Emerging Technologies (M2M, IoT, AI, 5G …etc.).
TRC experience:

TRC believes that its current existing Licensing Regime is capable of accommodating new technologies such as IoT/M2M since it is a technology neutral regime and thus any qualified party can apply to this existing licensing regime.

TRC will keep encouraging investment in new technologies and networks and will revisit the requirement of additional spectrum for access services to meet the connected devices spectrum requirements by M2M and IoT.

TRC will also make all resource available to provide information and help for those seeking the provision of IoT/M2M services.

TRC has published an updated Green paper document on its website with the recommendation about major criteria that affect IoT adoption in Jordan, in specific: spectrum, security, privacy, competition and legal issues.

TRC is currently reviewing its regulations to evaluate to what extent they meet the requirements of the new emerging technologies and applications.

TRC is in the process of consultation with the stakeholders to set up a regulatory framework for OTT services and applications.

TRC endeavours to develop and promote favourable policies and regulatory steps to ensure a fair, transparent, stable, predictable and non-discriminatory environment that promotes competition, fosters continued technological and service innovation, and encourages investments in broadband infrastructure, services and new technology applications.

TRC ensures that all stakeholders are informed about potential security and privacy challenges that they may face with online services and have access to timely and accurate information, including information about speeds and data traffic management.