Development of a Sustainable Business Environment to Promote Ease of doing Business in Emerging Digital Technologies [Including Broadcasting Sector] based on Sustainable Development Goals[SDG]

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The recent ITU-TRAI Training had enlightened us on the concept of Collaborative Regulation for Digital Societies. The Training contained very useful inputs which were very much relevant in the present scenario where in Prasar Bharati is going ahead with Transition to Digital Terrestrial Broadcast with proposed Analogue Switch Off [ASO] planned in a Phased Manner. The Roll-Out is facing difficulties predominantly due to the lack of Ecosystem for DTT, lack of sufficient funding and also owing to other technological aspects like the proposed DTT Technology not being confident enough to reach out to the Mobile Receivers in the interiors of Buildings penetrating the Thick Walls.

Further while listening to some of the Presentations, especially that of IoT (which was projecting Billions of Dollars of Business Potential), the same technical issue of the Signal Reaching the intended Target Receivers/Devices in the interior of Buildings is an issue to be resolved.

In this regard, after attending this Training and based on my experience spanning about 28 Years in Broadcast and Telecom Sectors [with about 4 Years Experience in Design, QA, Testing and Field Trials in Telecom Equipment in my Early part of Career with Bharat Electronics (including associations with TRC and later on C-DoT and CRL BEL for Development and Engineering of Designs including PCM Mux Series and RAX etc) and the rest of my career spanning about 24 Years experience in managing Doordarshan Facilities (Studios, Cluster of Transmitters, Earth Stations etc.)], I would like to put forward the following points for consideration.

A). Maintenance of Government Backbone Systems with Carriage Fee Charges and Part of Government Tax Component from the Digital Technology Based Services utilising the Backbone

The Government Departments managing Communication Infrastructure like DoT, Prasar Bharati are performing a vital role in supporting the Development of Digital Technologies by sharing their Infrastructure and Spectrum. In order to have a sustainable and economically beneficial Business model, the Government Infrastructure needs to be maintained well and needs to be further enhanced.

With the advent of Uniquely Addressable Technologies, we have come to a Level in which the individual Subscribers and Targeted Receivers / Devices are

Uniquely Identified. Hence these existing and emerging Digital Technologies allow us to have an exact account of Value of Business or Services Rendered per Subscribers as well as per the Specific Business Models etc. Hence one can easily assess an exact Value of Business Volume generated and Tax Revenue Earned from these services can be quantified. A reasonable percentage of this Tax Revenue can be earmarked for Maintenance and for further Investment in Emerging New Technologies which can in turn Create Businesses, Crate more Jobs and Hence more Value Additions to the Economy. Hence it is proposed that an advisory regarding allocating a Specific Return from the Government Earnings to support backbone systems needs to be incorporated in the Model for making the system a Sustainable one.

The general tendency of Private Players is to get the facilities in the Government Backbones with Minimum or Nil Investment. Further they demand for reduction in Taxes on Earnings from Services also. Thus both Direct Income by way of charging rightful Carriage Fee from Private Players in Backbone Infrastructure and also the possibility of getting Indirect funding from part of Government's Tax Revenue Earnings from the associated Services and Businesses in the Backbone gets affected. There must be advisory in this regard to make the Government Backbone System and the Digital Services exist in a sustainable fashion.

B) Employment Generation from all the Businesses built around the Backbone Government Infrastructure with Digital Technologies.

The economy of any society thrives on Circulation of Money. One of the easiest ways to achieve this is by creating Jobs. The Salary Income gets circulated in Spending and thus other Businesses thrive on it.

The present trend in Technology is Robotics and AI taking over Jobs. So instead of creating Jobs, the new Technologies Kill Jobs. This needs to be reviewed and sustainable model creating jobs mandatorily must be incorporated in Digital Technologies based Business Models.

The SDG had thought of it and had kept a provision for Universal Basic Income [UBI]. But if employment Generation is also ensured, then the economy would thrive, Government Tax Revenues will increase and the outlay for maintenance of Backbone Infrastructure can be ensured with ease.

The recommended Spending on Internet Services in the Converged Regime is proposed to be about 5%. In order to achieve this we need a Spending Population with Purchasing Power. Hence Generation of Employment is essential and it must be mandated in all the Digital Business Models to ensure a Sustainable system.

C) Roll-Out Responsibility for both the Backbone Systems and OEMs

The experiences with New Digital Technology Roll-Out had been not so comfortable in certain Technologies like DRM Roll-Out in AIR. The DVB-T2 Technology Consortium is also not fully confident for targeting Mobiles and ensuring seamless trouble free reception at all conditions. Penetrating Walls and reaching the Mobiles in Interiors is also an issue here. So the Government Backbone [Here Prasar Bharati] is very cautious in taking up a fast Roll-Out.

Hence it is felt that a Responsibility be assigned to OEM for ensuring an Eco-System for Roll-Out of these Technologies and to ensure that the System reaches the targeted masses. This will ensure the people centric approach which is an ITU Mission.

D) Creation of a Frame Work for supporting Technology Demonstration, Field Trials and Evaluation Platforms to Certify Emerging New Technologies and Start-up Technologies helping "Make In India" Initiatives thorough Evaluation by an Independent Agency or a Consortium

1) Frame work for Demonstration Trials and Evaluation of New Technologies

In order to ensure this, the Government Infrastructure managing Departments needs support of additional Fame works of which the most important would be a frame work for Evaluation of Emerging Technologies with the support of Established R&D Establishments like C-DoT, ISRO, CRL-BEL, DRDO [wherever necessary]. The consortium for Evaluation also may include Scientific and Research Establishments under MEITY and similar agencies.

The Broadcasting Sector Infrastructure for such a Frame Work may be supported by Prasar Bharati with its attached Directorates, R&D Facilities and NABM etc as decided by appropriate authorities. Similarly the Telecom can be supported with C-DoT and other associated facilities as decided by appropriate authorities.

2) Vendor Development, System Integrator Development and Certification Platform

The greatest achievement of Sam Pitroda lead Telecom Revolution was the massive amount of efforts for Vendor Development. This was followed by listing out approved Vendors for Components and Sub-Systems. Thus prior to launching the product [RAX] manufacturing through multiple Manufacturing facilities both Public Sector and Private ones, the support of sufficient vendors were ensured for the manufacturing. In today's scenario we may also extend the same philosophy for System Integrator Development and Certification also.