KERALA ECONOMY
2021, VOL.2, NO. 2 – 3 pp 20-21.

ISSN : 2583-4436

GULATI INSTITUTE OF FINANCE AND TAXATION

Digital Infrastructure

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I am really happy to be with all of you and the panellists to chair this session. In building up a knowledge economy for the state, I'm really glad that a lot of people are showing enthusiasm. I had the opportunity to listen to all those people in the inaugural session. It has set the ball rolling with regard to what the government is looking for. It is really very interesting and I'm really happy that we are discussing on the infrastructure for knowledge economy in the first session. When we talk about the infrastructure of the knowledge economy, there are many elements to it. In this session we are talking about the two of the important building blocks. The first speaker will deal with the telecommunication networks and the second speaker will deal with the electronics manufacturing activities that the KELTRON stands for.

Infrastructure, however, is not limited these two areas alone. There is much more in this area. Of course we can build into it the networks and connectivity, the servers, the storage systems, the satellite networks that actually can bring about the real connectivity. These are all part of the important IT infrastructure. Now, for building IT infrastructure, it is not enough to import a lot of these equipment, assembling them and provide the type of services that we hope to provide. The market is much more in building those ground infrastructure by ourselves in our own industries. So we have to look at how the need for this network or the infrastructure will actually enable the industries to grow. This is one area which we should address.

Similarly, when you want to look at the space-based infrastructure, there is something that is coming up very fast. How can we give the required connectivity directly from the space. And this is one area which we are all interested in looking at how the new thought process in providing network connectivity directly from the space routes. When it really happens there is another area which is going to develop. This is basically the ground-based data reception systems that the networks and the corresponding equipment which are required for those type

of nano systems. In addition, there is a large amount of infrastructure requirements which don't directly deal with the IT and IT enabled services. But there is quite a bit of other establishments that we need to look when you talk about the infrastructure which was discussed earlier. This is basically the educational system, the transport network, the services sectors, among others. Now, all of this really contribute to building the right type of infrastructure for this knowledge economy to start.

I don't want to make a big talk on it. I only want to point out some points which could be deliberated upon. To begin with, there is the need look at the investment that is needed in creating such an infrastructure. The question is whether we go ahead and create it in an incremental manner and then grow to a bigger size? Another important issue which we need to tag is about the obsolescence and hence the update that is required for the infrastructure. Is it not enough that you actually put in place some infrastructure which could be updated periodically? Such an outlook is justified especially because we are dealing with a fast-changing technology. Yet another issue is related to scalability. Of course, you cannot plan a massive network to start with. You start with something, then progressively increase it to cover larger areas and what should be the architecture in such a system? And how do you really look at the performance and how do you really manage it? So, the technical and organizational structure of this whole system that we are thinking about is something which actually puzzles me. How do you really want to create it on our own, and not to merge with overall global system? I'm really sure that the eminent panellists are going to deal with it.

It's not enough that we create all this infrastructure. We should also create the specific knowledge, which is required for serving the whole knowledge society. In fact, the creation of the knowledge is also requiring its own infrastructure. For example, the type of the data that you want to create; when the lockdown came, we are short of the lectures which are required to be delivered to students; we were finding it difficult to create required materials for them. For creating those large amount of data, which is required for the changing world, we need to look at what are the type of infrastructure needed to create the information or the knowledge itself to serve the needy people. So, these are the points which I want to highlight today and I don't want to elaborate.