

## **Dr. Paul Doany - Türk Telekom Genel Müdürü**

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Hello all, it is a pleasure to join you here at Telkoder's 10<sup>th</sup> General Assembly and first I would like to thank Yusuf bey and his team for their valuable efforts.

As the leading information and communication technologies company, which laid down c. 80% of Turkey's total fiber infrastructure and as the incumbent fixed operator, I will discuss the fiber infrastructure development methods in detail.

Investing in new technology has been very exciting and challenging. In 2016, there was a change that required me to return to Turk Telekom CEO position which I accepted and I thought this is a good opportunity to start to the fresh page of the looking at the future, because the future is different.

The speed of the technology cycles is too fast. Fiber investments are expensive and we know 4G will be replaced by 5G. OTT companies grow very fast. Yet, telecom sector may not always be brave enough to invest. In this new world, we have two factors that are challenging, macroeconomic factors i.e., exchange rate and high inflation.

The second challenge in this environment is that the only way to do financing for a long-term loan has to be in foreign currency. So our capex (capital expenditures) investments become more difficult. Of course, borrowing in Turkish Lira on a short turnaround at a high interest rate is also untenable. Which is why duplication of infrastructure has to be stopped. However the question is how we do it using existing laws. What impresses me so much about this country - and this is also why in 2010-11 when I left the company, I invested everything in this country, so personally I live here and I invested my everything here - growth, young population, underserved people always wanting to have new things. Very innovative. In 2005-2006-2007, I pushed very hard to make sure that Turk Telekom made acquisitions of IT companies. ARGELA in 2006 had the first VoIP product. There were not many companies like that in the world. INNOVA had some interesting products but they were more system integrator. SEBIT also was investing heavily in

education content, very exciting. We developed the science and math products in American language, because the Americans have weak science and math skills. We also invested in game companies but Turk Telekom did not look after the game companies after I left, hence they started as new separate companies. Something very interesting, when I left Turk Telekom in 2012, I went to visit ARGELA. Bülent Kaytaz (CEO) told me, that they're working on SDN (Software Defined Network). I was shocked, I told him you are very brave but in Turk Telekom, to sustain this investment for five to seven years to get a return on this is difficult. When I returned to Turk Telekom in 2016, I was asking the development team what ARGELA have and they mentioned that they have a network slicing product. I was out for five years and I was surprised and said I'm sorry but what do you mean? Then I remembered SDN. So they have managed to develop the product and they made a test in Verizon USA, after they test in Telefonica, and now France Telecom. Now, ARGELA is open to make a cooperation with other operators both domestic and international for this amazing network slicing product. Most of the time I can tell you that local technology usually means forcing something on a company. It is wrong to do that. But certainly, we should not buy three mobile networks. When I came, they were discussing with me also the joint infrastructure company in fixed. We cannot make a joint company but we can cooperate on more legal and effective ways.

I want to give you the secret method of being the incumbent operator. Incumbent operator always finds a good reason to tell you no and they all know it, I am trying to find a reason to say yes. I know also Kaan Terzioğlu and my friends from Vodafone - I know Hasan for sometime, they are very practical people. I met first time my friend Yusuf Bey at first Telkoder General Assembly. That time the minister was Binali Yıldırım, I asked them their guidance. He told me to help the small operators. It is very easy for me. Because that's the best thing I believe in. So, we created some time for what we could do. Remember alternative operators are a big challenge. In other words, whatever model you do your help is not sufficient. It doesn't survive. Also in Europe they are reducing. We offered mobile to them, also we offered virtual mobile service, television. We supported, D-smart, Vestel mobile, PTT, Bimcell for example. But for the fiber and fixed line, we worked with small operators first in 2016-17. I have spent some time with the small operators because I was asked to. So I was attending the meetings with small operators sometimes with

their own service providers. My friend Cem Çelebiler is not here today, but I used to go to him, sitting the meetings, listening to his needs. What I'm trying to tell you is that working with the incumbents in all countries are all the same - it's not bad intention. But it is resistance. One of the reasons for the resistance is they need to have a legal framework. It is fear, you know very well that a person who is afraid will not do anything. That is the reason why first we try to make commercial agreements in the long term. This way, we don't need the regulator approval. Plus, it is commercial and non-discriminative; i.e., everybody gets the same condition. In other words, we will be able to move very fast. You remember we have meetings with failures. Municipality model doesn't work. The idea doesn't work, because the infrastructure of Turk Telekom is not owned by the company, it is not owned by Turk Telekom. It is returnable to the state at 2026 due to the concession model. So, how do we cost effectively maintain the public interest right in this model? Hence, we have created the capex (capital expenditure) contribution model. Which we signed with Vodafone first. This means we got that capex contribution for what Vodafone wants. They have the right of use that part and Turk Telecom owns the asset. At the end of the concession, this infrastructure entirely is returnable to the government. Operator has a right to use it, as it paid for it. Operator pays the rent in long run, for instance, 10-15 years. They account for it as a capex. They pay for it like a capex, but they don't own it and they accepted. So here is a solution. It is legal, hence the incumbent; i.e., Turk Telekom does not have anything to be afraid of. Everyone can move faster. Same thing is valid for mobile. We did active sharing for mobile base stations with Vodafone in Zonguldak - full active sharing according to the concession. In my opinion, instead of going to regulator for all fixing, it is better to reach a commercial agreement between each other, as it is faster. We have two models now, one for fixed and one for mobile infrastructure. For the coming 5G, we need to have even heavier sharing.

Just to close on this subject, people think for 5G, you are giving more to the people who already have a service. We have to think about the people who do not have a universal service. To give universal service, everybody has to have access to LTE / 4G. But remember they don't need a lot of bandwidth and capacity. It is a citizenship right. This is why, we also need a low bandwidth limited capacity but at cheap price. One network, three of us together. When we become closer we become two. In big cities, we have to become two for instance. For 5G we may become one.

Let's say, you make the infrastructure agreement for 15 years, like we did in Sincan and if it is for your customer who is not close enough to Superonline network, Telecom will give to you for 5 year contract. This way, you got a lower price. This method is commercial, legal, fast, no resistance. Believe me, I am here to solve the problems. I will not accept failure. If we fail in something, we will compensate something else, because we cannot succeed in everything also. We have a model for the fixed and the mobile is a big progress. In my opinion, for local technology, Ulak came late, %45 local-product obligation should be converted into slicing bandwidth to the one who needs it. If a person wants low ARPU (monthly average bill), then he/she needs 10 - 15 GB. Now all the big operators are thinking the same way. But, we had some meeting in BTK and I was explaining about Germany example after the election. Merkel could not form a government. They were fighting about 5G licenses. Opposition said give more licenses, collect 20 Billion Euro license fees, cover obligations and Merkel said no, and now she is out. What is remaining in Germany today is catastrophe. Deutsche Telecom is in trouble, Vodafone is in trouble, Telefonica, all of them. Turkey's biggest advantage is that government owns all infrastructures thanks to the concession agreement in the end, both fixed and mobile. Therefore by definition, a model should be economic and offer quality. Superonline lay their own infrastructure & their towers and also Vodafone, but in fact all are government owned. Because it is government-owned, government can take any legislation to Parliament and it can pass laws in the public interest, which is unique. It can make it in the public interest, meaning you can legislate. That's what I mean by public interest. By the way, Italy could also make a law, but they could not and also they have made a mistake of having too many licenses now and Vodafone is in trouble. Our role as Turk Telekom is to connect Turkey to the future and we are working non-stop to enable that vision. Thank you.