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WORKING SESSION: REGIONAL APPROACHED TO BROADBAND MAPPING IN EUROPE

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>> Dear Delegates, we're waiting a couple more minutes for the last delegates to join us before starting proceedings. Thank you.

>> CHAIR: Ladies and gentlemen, it is 10:05. We are about to start the meeting. Welcome to the second day of the forum for Europe. It is our great pleasure to welcome you all at this unique opportunity which mainly is focusing on the mapping infrastructure.

And one more time we would extend thanks to the support of the organization of this meeting. Having said that, ladies and gentlemen, today, the day, it is a little bit different, it is different because we're focusing on the two presentations which should be ‑‑ which should serve as food for thought for our working session on the regional approaches to the broadband mapping in Europe. We will take a look at what's happening at the European level and the outcomes of the extensive work done by the partnership.

It is my great pleasure to be joined today by Julian McNeill, consultant from our office and also from Madam Inga Popovici, Chair of the Expert Working Group at the Eastern Partnership Network of Regulators.

With this short introduction, not to prolong, I have the great pleasure to introduce the first speaker who will be presenting the first paper presented on this occasion. I will hope that all of you have had the occasion to look at the paper and will develop a good understanding of what we want to present and propose for the region with this, I'm handing over to Julian. The floor is yours.

>> JULIAN McNEILL: Good morning. Thank you, Jaroslaw Ponder. Thank you all for joining us today.

In the next 20 minutes I will present the background paper on broadband mapping systems in Europe and regional harmonization initiatives. It was prepared by the ITU office for Europe for this forum.

Much has been said yesterday, but today in this presentation we'll try to look at things from the Europe region perspective as a whole. Let me provide some organization of the matter that we'll look at from the Europe region.

As you see from the graph to your left, there's been a great deal of improvement in Internet penetration in Europe region as a whole. Last year, 84.43% of the total population had access to the Internet. As you see from the blue line, non‑E.U. countries are catching up in terms of access to the Internet, bringing online more than 70 million people in the last ten years. With regards to everything that relates to broadband, the European Union is leading the process from regulatory, technical, investment point of view, but non‑E.U. countries are rapidly catching up. However, of all unconnected, as you see from the blue box, 50 million people come from non‑E.U. countries. This shows the great potential, especially countries characterized by young population turning to the graph to the right, it shows the fixed broadband subscriptions per 100 inhabitants you see improvements have been made but the gap has not been reduced between the Europe average online E.U. countries. It is fair to say that the improvements in broadband penetration rates have been driven mostly by mobile rather than fixed in non‑E.U. countries as we have all experienced though, COVID‑19 has shown the importance of fixed networks and outside of satellite services and how these are really important for household resiliency. This gap, which is not reducing, requires careful attention, hence the focus of the paper on fixed broadband.

What is the issue with fixed broadband development? Let's look at the stakeholders involved.

Policymakers are caught up between societal demand for broadband also due to the pandemic and the necessity to support underinvestment while ensuring market competition. On the other hand, operators are pressured between high cost of deployment and decreasing revenues and finally society risks either not having appropriate services or having to spend resources inefficiently.

Put simply, any policy that addresses societal demand that's aimed at the enhancing broadband networks requires careful evaluation by policymakers and regulators to identify the right incentives to foster new investment in coverage and network upgrades. This is to be achieved by maintaining conditions for markets to operate competitively and for operators to see appropriate returns on investments. It is quite ‑‑ the scenario is complex.

The slide is just to remind you about the complexity of this policy area. There are many different interests concurring and many obstacles intervening, and two critical policy factors are always investment and competition. So over the past years, countries have come up with broadband mapping systems as a solution that is intended as information systems, standardizing the relationships between the regulators and operators and thereby enabling better collaboration. In particular, they can support the application of state aid rules to provide financial incentives to the market to unlock private investment while protecting competition. They can support codeployment and infrastructure sharing as we have seen yesterday in the other background paper presentation within the Telecom sector and also across other network industry to lower the cost of the deployment, fostering investment and again increase competition. They can also anticipate operators' investment plans to support state aid and create better conditions for collaboration while ensuring competition. Essentially all of the efforts have been focused on the interplay between again investment and competitions which always emerge. It is worth noting that only ten years ago there was no such rationality and much was done through statistics. Now the process has been changed and it has been led by national regulatory authorities. It is also important to underscore, to mention that what's happening in Europe is happening also worldwide. In this regard we invite stakeholders to read more in depth about the generation five benchmark on collaborative regulation which recognizes counterfeit mapping as a tool for evidence‑based decision making and also on the ITU interactive transmission maps focused on the importance of global background networks and you have seen the collaboration signed yesterday by ITU and Montenegro.

Overall, broadband mapping has gained pace further reinforces the rationality of mapping as an established and fundamental practice in regulation and an important tool for NRAs. Regulators which are looking to improve and innovate their practices should consider ‑‑ should closely monitor the developments in this realm. After the longer introduction, what's essentially the purpose of this paper? To provide a comprehensive overview of broadband mapping in the Europe region compromising of 46 countries and identify harmonization initiatives to allow fruitful exchange of information in the region I will now turn to briefly summarize the paper by outlining the development of the regulatory framework as the leading framework in the region and one of the leading worldwide. I will also address recent developments in the regulatory framework which interested stakeholders should look more closely at especially 2021 and I will provide a glimpse of the European Commission and Member States actions in the context of implementing the regulatory framework and then finally I will turn to focus on the 8 countries in southeastern Europe which are selected as having great potential to make further progress in broadband development and strengthen the broadband mapping systems having in mind what's going on at the E.U. level.

Firstly looking it at the regulatory framework. Broadband mapping did not develop by itself in the E.U. Member States but strategies have underpinned concrete regulations. For example, the digital agenda for Europe already contained ‑‑ already explicitly recognized that mapping of available passive infrastructure is an important factor to lower the cost of deployment and most recently they expanded on the digital agenda stating that regulation supporting investment in connectivity most effective when based on in‑depth local knowledge of mapping of electronic communication networks and also of operators' investment plans. The main take away, it is that the regulatory developments in the field of broadband mapping in the E.U. emerged from a clear strategic policy driver. It is also worth mentioning that the latest E.U. Digital Strategy is facing Europe's digital future, it does not mention mapping. This must not be seen as a sign of discontinuity, but rather a sign of maturity considering the regulatory framework which emerged due to the driver, the digital agenda and the gigabit society.

The first point that the paper makes is the importance of having broadband mapping embedded in national strategies. With regards to broadband mapping, looking at the regulations that emerge from the strategy, there are three pieces of legislation which stand out as the cornerstone in the E.U. These are the guidelines on state aid for broadband in 2013, the broadband cost reduction directive released in to 14 and the electronic communication code from 2018. Many of you may be familiar with the regulations. Why are they so important? Briefly, because they compel Member States to have the basis for a data‑driven approach to gather precious information on connectivity and the infrastructure and services.

The commission has been for some time doing this, the public directive, we have some examples of those. By looking too closely to the regulation, the paper finds that in these three pieces of regulation all implied the need for reference the mapping of infrastructure and services and to some degree also investment. Here you see reports of a few specific provisions relating to, this which I invite you to read more in depth in the paper. An item that's important to mention, it is that the recent European and electronic communication code gives more power to NRAs other competent authorities and empowers BEREC as it task it is to produce the technical guidelines on service mapping and forecasting as we will see in a moment looking at the recent ‑‑ looking at the recent developments on the same three pieces of regulation it is fair to say we're living in interesting times, regarding E.U. state guidelines the commission is looking into revisiting the guidelines to ensure that these are fit for purpose. The revision will draw up on several studies conducted in the past three years as well as consultation which is open until the 5th of January, 2021. Non‑relevant recommendations from the past and from the studies, better alignment with the broadband cost reduction directive and the European code is envisioned, eventually even by integrating all mapping systems into one. As you see from the blue box, the revision is expected from Q2, Q32021. Concerning the BCRD, the BCRD has been characterized by difficult implementation, mainly due to the institutional design because it didn't identify any institution in charge of the implementation and also because of the reach, because the scope of the directive reached far beyond the telecommunication sector. The commission will revise the BCRD to provide more clarity and ensure the objectives of the directive are met more efficiently from the perspective of the electronic communication sector and stakeholders operating in the field, the recommendations include putting the single information point on the shoulders of NRAs which now happens only in 50% of the cases. This will also give more regulatory clarity to operators, and also some recommendations include integration of service mapping into one system which is similar to what's recommended for the E.U. state and guidelines as I mentioned moments ago the revision again for the broadband cost reduction directive is expected by Q42021.

Then the third element, the geographical displays, the most important aspect, these are the first instruments to freeway harmonization on the service mapping allowing for better coordination among NRAs at the European level. We'll see the benefits of this over the years. This is a good example, in fact, that could also serve for better implementation of the broadband cost reduction although again the reach of the BCRD in other sectors such as building regulation may provide some obstacles now that we have outlined the E.U. regulatory framework and recent developments it is important to say a few words about the European Commission and Member States and what they're doing from the perspective of the actual implementation the scope of this paper is not addressing ‑‑ is not addressing and assessing implementation of the regulation as this is the job for the commission nevertheless, it is important to outline what's been done and to provide some considerations starting from the European Commission we have heard yesterday the intervention yesterday, I invite you to go back to, it gives an overview of what the commission is doing in this area. Firstly, it is important to recognize that all of the discussions that we're having is mostly based on the study of broadband and infrastructure mapping published in 2014 where definitions and methodology for design and establishment of broadband mapping systems at the level of Member States is provided. This guide provides an essential rating for stakeholders active in this area and may require it to be revised at some point, especially considering the guideline, the Revision of the E.U. guidelines and the BCRD and considering that now the NRAs and Member States have great deal of experience in this area in this paper we have also looked at the work of the commission from one angle in particular. On the right you can see that the project on mapping of fixed and broadband services in Europe starting in 2016 sought ting a great the data at the E.U. level and developed the first European wide integrated monitoring system focused on aggregating service data from over 30 institutions now. I invite you again to check the details of the presentation on this ' mentor from yesterday.

For the purpose of this paper, looking at the harmonization initiatives it is worth asking if the same model of harmonization which has worked for service mapping with the guidelines can be applied also to infrastructure when it comes to the implementation of the regulatory framework at the level of the Member States as it has been argued, the E.U. regulatory framework provides a degree of freedom into how legislation is implemented at the national level. Research has looked to identify broadband mapping systems broadly intended to build a repository at the European level to facilitate the exchange of information.

Again, there is no pretense to evaluate the implementation as it is not the role of the ITU. Ensuring that the information is available to our membership, that's our main objective. In the paper you will find a featured list of systems in the E.U. countries, though a full list of what's been found across the 46 countries will also be referenced as there are non‑E.U. examples such as the U.K. or Switzerland which to some degree are influenced by the E.U. regulatory framework and are also interesting to look at in this context, it is nevertheless important to draw some considerations and although the implementation of the broadband cost reduction directive has carried challenges, the directive has had a relevant impact to fostering a data driven approach to regulation which sustained codeployment and infrastructure sharing across different industries, not just the telecommunication sector the application of the E.U. state guidelines has enabled Member States to allocate resources more efficiently, that's a significant improvement compared to the period to 2007, 2013 that the commission sought to improve. The guidelines will support in the pre looking at the future, BEREC.

The third point we wanted to make, beyond the infrastructure and service mapping, investment mapping requires a gray area which is characterized by regulatory uncertainty. However, investment mapping is increasingly important to ensure cost reduction and efficient allocation of state aid. In this context, it is fair to say that greater integration between the three layers, infrastructure, service and investment is emerging as a potential way forward that can be found in the revision process at the E.U. level underway now we should turn to the mapping systems in southeastern Europe where the paper dedicates a third of the analysis to create the connection with what's been said up until now, it is important to reiterate that for accession countries, non‑E.U. countries interested in the regulatory framework, it is fundamental to develop edges tensive knowledge of the current framework, monitor the reinvestigation as we have seen that many changes will happen in 2021, identifying best practices in Europe which are in line with the needs of the country the countries will also be able to leapfrog eventually and create an enabling environment for the single integrated mapping systems.

So the research has focused on the 8 countries so considering the great potential for broadband development, listed here. These have great potential for broadband development and they're all close enough to the work of the European Union in non‑geographical terms, to be willing to consider substantial advancements in the areas of broadband mapping, an argument valid for accession countries, in particular these countries have 15% lower broadband penetration than Europe region average and 5 fewer broadband subscriptions per 100 inhabitants. Working with the European Union on some projects related to broadband development, to various degrees and with different objectives all countries have been working on broadband mapping. Some countries are taking substantial steps.

In this year, in the Western Balkans, there are many accession countries, most of them have already adapted their electronic communication laws in particular to the cost reduction directive. In the Eastern Partnership they're coordinating substantial work in this field, including involvement of the World Bank and of experts from NRAs from the E.U. to work with the administrations in Eastern Partnership countries. As we will see in the next presentation in this context, the context of this paper, as the situation in each country is specific and requires substantial conceptualization we will leave to you to discover more in the paper.

For each country, a background on the status of broadband based on ITU data is provided, and then a section addressing the regulatory and technical efforts in the field of broadband mapping is provided this will be integrated with the outcomes of session 4 yesterday with the experiences of the countries and will be also submitted to the countries for further inputs and comments despite more research being highly beneficial for now, the country analysis has already highlighted three main trends. The first is that countries have given precedence to infrastructure mapping rather than service or investment mapping. Meaning that there is scope for expanding and upgrading the existing mapping systems towards these areas moreover, within the context of the infrastructure mapping often the exercises of the countries limit to the electronic communication sector, as you have seen with the implementation of the broadband cost reduction cost directive in the E.U., the full benefits are realized through crossed sector collaboration for codeployment and infrastructure sharing with other network industries this is another area of potential improvement. Finally, acknowledging that reducing the gap in broadband development depends on better information as well as targeted and efficient decisions by the relevant authorities but further supports the rational for establishing or operating broadband mapping systems to accelerate the obtainment of broadband Development Goals while ensuring market competition integrating the three layers of infrastructure investment and service mapping could enable countries to leapfrog and further sustain and accelerate broadband development in the coming decade I would not linger longer on the paper which includes many other nuances such as ITU work on the importance of mapping backbone networks as it has been presented yesterday by my colleague Vladimir.

There are three main points that are outcomes of the paper, the first one, it is that the E.U. regulatory framework is under revision, all stakeholders in the region should participate in this process which may bring substantial updates in 2021. The second point, it is that non‑E.U. countries in Southeastern Europe has the potential, as I said moments ago, to leapfrog to systems to integrate the three layers of mapping which are infrastructure, service, investment, in support of broadband development over the next decade.

Overall, the third point, it is that as in any other policy area, cross‑border collaboration and exchange of information are key to ensure dialogue between regulators and make sure that best practices are shared and contributes to a harmonized approaches in the region. The ITU office for Europe aims at fostering harmonization in the region, reduce the gaps and avoid the creation of new gaps eventually by providing technical support to the countries, leveraging internal expertise and also the expertise acquired on the ground by NRAs. For all national regulatory authorities and all other competent authorities there is a significant potential for broadband mapping systems as an important regulatory tool. There is a fundamental upgrade that needs to be undertaken, investment, allocate public funding efficiently and make sure importantly that competition is protected. I hope this presentation has helped to provide a comprehensive overview of the paper which again I would recommend to download from the event website and engage with us in the coming days and weeks with comments and observations.

With this I think I took quite a lot of time so thank you for your attention.

>> JAROSLAW PONDER: Thank you for the comprehensive overview in the situation of the field of mapping. Now It is my great pleasure to introduce our colleague Inga Popovici, who is chairing a special Working Group at the Eastern Partnership network of regulators to update us and present results and outcomes of the significant work carried out by the Eastern Partnership, under the Eastern Partnership in the field of mapping Inga, the floor is yours.

>> INGA POPOVICI: Thank you very much.

First of all, thank you very much for the kind invitation to take part in this event. It is a great pleasure to be here with you to share the work on the mapping system and also to learn from the experience of other countries. Congratulations to ITU for the insightful discussion yesterday and to the contribution to this event. This event, it is very important to look at the opportunities to learn from other countries with whom we are very glad to meet. Although it was a very short TRIP for us lost year, it was unforgettable. We're looking forward to meeting you all again in Montenegro, meanwhile, receive our best wishes for successful results in all of your projects I kindly ask Julian to upload my presentation.

>> JULIAN McNEILL: I think our moderator is on it. They'll share the presentation in a moment.

>> INGA POPOVICI: Thank you very much.

Today we were invited on ITU's kind invitation to present work on mapping system for the Eastern Partnership countries, we have learned that not only facilitates investments, but helps with effective regulations, allocation of funds with the digital gaps. Before my presentation is on the screen, I would like to say that we thank you very much, that our group, the group responsible to take concrete actions and improving the broadband development indicators in the Eastern Partnership countries insisted very much in 2017 and including the broadband mapping in the working plan, in the midterm working plan. Today we're very happy that in 2020 we have a report that has clear guidelines for partnership countries on how to set such a tool. The report I will be presenting today ‑‑ the next slide, please ‑‑ the report was done in cooperation with the World Bank group from Poland, mainly on technical aspects and I would thank them very much for their consistent contribution to this report and, of course, experts sharing this report, he has three main parts, first of all, it represents the rational for broadband mapping and presents successful examples of broadband mapping systems in E.U. countries, most of them were presented yesterday so the report presents the broadband mapping system in Portugal, Poland, in Austria and others. There are country‑specific recommendations for implementing the broadband mapping, they are defined in this report next slide the main recommendations of the report are divided in two. First recommendations from the legal framework and those recommendations, they are ensuring the protection of critical infrastructures, introduce Cybersecurity standards in the context of critical infrastructures including the obligations of data collection with broadband mapping purposes and also in ensuring enforcement of this obligation and the making sure that the data is not misused next slide also the report containing recommendations on improvement of institutional framework. I think that in almost all events on this topic, it was outlined and we agree that the collaboration with other public institutions and national agencies to facilitate the task of the broadband mapping initiative, it is very, very important and it is actually essential and therefore our report presents some recommendations in order to make this process more easier and also recommends the elimination of barriers. Regarding setting this collaboration during our discussions, it was agreed that setting the collaboration on the regulatory level, so to improve this, it is more efficient but any way the volunteer corporation, the corporation based on memorandums of understanding between the organizations may also serve this purpose, it is essential and it has a special recommendations in IOD report for the partnership countries as well another important aspect is to ensure that the stakeholders and operators are aware of the opportunities in the broadband mapping and also the report includes the necessity of the regulatory and legal framework in order to make sure that they have the effectiveness of activities regarding the collection and regulations based on the information that they collect from the market.

Next slide, please the report included some recommendations regarding implementation method, as presented by yesterday, we have six partnership countries and all of our projects, and we have incorporated with the Member States and with the Balkan countries, for the implementation method, several examples were analyzed and also the situation in the countries and our report recommends actually to help a hybrid approach.

To develop this system by outsourced company, but the requirements for mapping systems, for 5 countries, it was the recommendation in the report but for where broadband mapping is advanced and the expert from Poland, Georgia, they have already enough expertise to continue what they have already started regarding these recommendation, actually we're still in the process of analyzing because as you see on the map slide, the cost to have such a tool, it was estimated according to GDP indicator for each country, so we're referring to Georgia and Moldova, and we will see there that broadband mapping will cost around a half million euro for each country and besides that, anyway, at least five experts, we need to be engaged in this activity in order to maintain the system according to the regulations that are now included in the report the price, it is very high for the countries, and at this moment, they do not have the budget. Therefore, with the help and guidance with our group, they're locking through the option, as our colleagues in‑house, as our colleagues from Georgia have already done and based on the expertise and collaboration of defining the technologies and to set it by the expert group for NRAs, in corporation with the groups so as first step, we organized a workshop. Please, next slide.

So recently, we recognize the workshop for TAIEX and we invited experts from Slovenia and Croatia who had some expertise, outside expertise at the beginning, the main design of the mapping and administration and now maintenance and improvement of the systems is done by them by experts in Slovenia and in Croatia and together with them we started this workshop as a part of a series of workshop and we analyze the possibility to set this instrument by the organizations by themselves without outsourcing this task that first of all it is very costly and secondly it should be done by the experts of the NRA the main outcomes of the workshop, it was that our colleagues from Slovenia, from Croatia presented the use of data in the regulatory environment and all of the benefits for regulatory decision making process to use this type of data, GAS systems, and also some insights on how to develop the map by experts on their own efforts using opensource applications and available in the countries. So participants to further analyze the information that was presented and ready to start implementing some of the recommendations presented.

Next slide, please as future plans for the work, for this topic, first of all, we intend to continue discussions after the workshop and to organize another one as a second round and to follow‑up the discussions of the first workshop and to make it most practical and during the workshop to try already to deal with the layers by using the data that we hoped would be collected in the upcoming future especially for this exercise we're planning to organize this meeting in a face‑to‑face formats? Possible to organize such event and to give the possibility to our beneficial countries to form the partnerships to practice the system using their own publicly available data and also to build during that workshop at least one layer considering that during the workshop, the work on the report that's almost finalized, we have to agree on the last final version by mid-December, a lot of questions were asked regarding critical infrastructure and the Cybersecurity related to the infrastructure. Also questions regarding the publicity of the critical infrastructure or the broadband mapping systems and so on.

So we have decided to clear those questions and during another workshop that's planned to organize in the middle of January and we also will invite several experts from E.U. Member States to provide some examples regarding first of all definition of critical infrastructure and the second, they experience about including this type of infrastructure in broadband mapping systems.

As Julian presented very clearly and in an interesting manner the challenges the cost reduction directive in E.U. and even for the E.U. Member States and the directive was challenging to implement, however, there's permission and the reports outline the benefits of the provision of this directive for our very important ‑‑ it encourages countries to work together on a tool that will help E.U. Member States to properly implement the directive in the country. We also are trying to keep the pace with the E.U. countries and to be part in the discussions on this matter, therefore we are planning to organize the joint workshop of others together with our ANACOM colleagues. On the broadband mapping and single information point of the challenges, from the broadband cost reduction directive and also to find the solutions for the communication over this document another very important point in our activity is to continue our cooperation with ITU and also to be involved in ITU on the broadband mapping system so that the countries from the Western Balkans region also includes the three countries from the same partnership thank you for the opportunity to share our work.

I would like to say that it is continuous work.

We have done and have achieved already several positive results but still there are a lot of challenges ahead of us, we are very strong team and we have very good partners, ITU, and we're very confident that we'll be successful in our initiatives thank you very much for this opportunity to share.

>> JAROSLAW PONDER: We hope to develop in the future, the similar cooperation and to ensure that we're bringing also in the European discussion also the perspective of the Mediterranean context.

Thank you very much.

Ladies and gentlemen, we plan this session as the working session. It is not the question any more about the presentations, the floor is open for any kind of the questions and the possible discussion and we have in the room the main driving leaders of the mapping systems as I see. I would encourage all of you to take the floor right now and to ask the questions.

Just to start, I would ask the first question yesterday, there was presentations from BEREC and the European Commission, we understood that there was a lot of developments also coming in the next year in terms of the harmonization and expectations. In terms of the work on the mapping systems, there is significant progress to be expected and I'm wondering how can we ensure that this progress is not only happening in the E.U. countries but also others benefiting from the developments.

I'll open the floor. I'll invite Julian and Inga to take the floor.

>> JULIAN McNEILL: With this kind of initiative, with this kinds of events we're doing, I have also participated in other events that Inga mentioned, it was very insightful. These events that bring us together virtually, it would be, of course, better to meet physically. This is really important. Here I think three points are very interesting the first, it is that developing a Europe‑wide platform and a repository of all mapping systems would allow the stakeholders to monitor and also discovering innovation in this field and this is what we have been trying to do with the ITU office for Europe in the past six months, just more than six months and this will be regularly updated and I think this is one first element that could provide cross‑border sharing of information.

The second, why is this cross‑border information important, is that looking at what's done in other countries, compels stakeholders to really improve the systems and to really get new ideas on how to improve their own systems at the national level. Third point, again, this cross pollination, cross‑border cooperation happens indirectly through these kind of events and initiatives but may also lead to direct twinning projects between NRAs and this will be another important development which we would really wish to see at the level of the Europe region which comprises of the 46 countries.

>> JAROSLAW PONDER: Thank you very much.

>> INGA POPOVICI: Thank you.

First of all, I must say that I agree with everything that Julian said. That cooperation is indeed very, very important and the organization for being together with countries so only the European region and they're discussing and finding together solutions for the problem. Indeed, the European Member States countries, a lot of work was done right now and this work is continuous and we have heard from yesterday from Michelle, an upcoming Chair of BEREC, only this year, BEREC issued around 14 guidelines regarding connectivity. The work BEREC is doing, it is really huge.

It is a lot of information and a lot of discussions and negotiations between E.U. Member States and for other countries, for non‑E.U. countries, it is very important to first of all, to be informed about this document, to know about them, to know the trends in order to keep the pace and now in this basis, it is a difficult task. We are very lucky because our platform was set as such to bring together E.U. Member States and Eastern Partnership countries and for our meetings by E.U. Member States experts and still it was continuous work and we have together, we have had this obligation to find better solutions to keep them not only in E.U. countries, but to keep them first of all informed about all of the changes and also to identify together the solutions for better for them because there is no one solution. Yes, it is very challenging, and a lot of work has to be done and I personally, I'm very confident that if we continue the work that we have already started we would have avoided the appearance of the new gaps between the new Member States and the non‑E.U. Member States.

>> JULIAN McNEILL: If I may add, you said something interesting to me, I think also what we found in this background paper that we developed, it was that the non‑E.U. countries, they not only can and should keep the pace but they have the real opportunity to leapfrog and it was interesting to see yesterday the example of Georgia which started the work three years ago and now is already thinking to integrate all of the layers of mapping into one single integrated system, this is something that's quite rare to find in the E.U. Member States, for example. There is also great opportunity I think to do a lot in this field for non‑E.U. countries.

>> JAROSLAW PONDER: Ladies and gentlemen, this is the time when the floor is open. We invite you all to raise a hand and to activate your microphone in case you have any questions or proposal for concrete activities. We have digested a lot of content during this lost day and also in the last hour and we're grateful to all presenters for sharing the experiences and now it is the time just to have some reflection on what we have heard.

I don't see anyone raising their hand. We have a comment.

>> PAVLE MIJUSKOVIC: Good morning and thank you for the presentation and the nice overview of the European framework and the overview that you do in the countries.

As moderator from yesterday's session, I'm here to say that we see I think four platforms, but in Georgia, they have a new platform, and we have the new European frameworks, also we have implemented a lot of features because maybe we're just missing to put in the public utilities and to expand the signature points because ‑‑ this has been adapted. This is actually what I say and on this I think, of the four countries, we're actively participating in BEREC and we're following guidelines and trying to implement all of this in our system. It is not easy probably, also to harmonize all of the systems, the countries, especially some countries that have the legacy system which is on the way of working, here we have something to add, it is to collect the data from operators, if they don't hear of the system, it is also difficult and I think that you find the right threshold that you should collect from each operators on the state institution, if you ask too much, you don't get to the problem but if you ask too much, you have to also keep in mind, it is difficult to provide with this data. That was just my comment. I think that the system represented of the requirements to develop the better system thank you very much.

>> JAROSLAW PONDER: Thank you very much for this intervention I'm still keeping the floor open. Asking if any other comments will come from other colleagues.

>> INGA POPOVICI: Can I comment quickly on that intervention? First of all, thank you very much, indeed all of the problems raised by Pavle, they're actually the problems with which countries are confronting right now and the problems, they'll be overcome by the E.U. Member States and the data collection, timely for the directive in both Western Balkans Countries and Eastern Partnership country, they should be priority for 2021 and I would suggest to organize a joint workshop for the Balkan Countries and the Eastern Partnership countries for this exactly specific topic. We already have plans to organize such a workshop and we're kindly inviting our colleagues because indeed the data collection problem, the problem in countries, there is a lack of experts and I also presented this in my presentation and operators do not collect the data in the GIEs should be once again addressed and during the workshop maybe to draw some recommendations, some conclusions for countries to take and to implement them and this is indeed the first step for setting to move the system.

The system may be ‑‑ the system in Poland, it was very good system. Very complex. It tells about single information point and the system lacked the obligation to provide the data, to provide it in the right format with all the needed details, for a few months the system was ready but it was empty. There are a lot of lessons learned in the E.U. and we together should find the very proper way to present those lessons learned through our partners in the countries and in those partnerships.

>> JAROSLAW PONDER: Thank you very much we have one concrete proposal, action and we have the ongoing efforts of the implementation of the directed assistance in some countries.

Colleagues, do we have any other question ‑‑ yes. We have Alexander. The floor is yours.

>> ALEXANDER OLEKSANDER: I'm from Ukraine, from the Department of Digital Transformation, and my question is on the broadband mapping system. What's the time period to build a national broadband system. Julian, I think you, sir, told something about decades and we here in the Ukraine are not ready to wait for decades and we plan to build it in my short period. Please tell us about your experience about that time period.

>> JULIAN McNEILL: Maybe I was not clear on my presentation on this part the part regarding the ten years was basically recognizing the developments which have been going on around many regulators and countries over the past 10 years, this is to state that before there was not much emphasis on broadband mapping, broadband mapping has in some countries has already been established for more than 10 years.

In our experience, it really depends on the scope of the project and on the scope of the mapping generally we would say to have the first operationalized mapping system on infrastructure, it could take from one to two years and I was just thinking on the spot for the example of Poland which started the work for some time and that was a good example but also more recently I'm looking at Georgia for example which started the work in 2018 if I'm not mistaken and now in just less than two years was able to have some concrete deliverable and advancements in this field. I don't know if this response to your question, but I think there is reasonable time, it would be one, two year, again, it depends on the scope of the project. Of course, if you want to implement the full-fledged integrated platform with all of the layers it may take some more years I hope I respond to your question.

>> I think we would also have regulators that would like to share their experience in this. We kindly invite you to take the floor I don't have so far any requests for the floor ladies and gentlemen, just taking a look at the chat, if there's anything in the chat. We have one comment about AGCOM from Italy, one of the first countries with the broadband mapping system and it is on the website at agcom.it ladies and gentlemen, last call for comments and contributions and if I don't see any then dear ladies and gentlemen, I think we'll be wrapping up now this session and also at the event we just would like to reiterate to the Conference and to the supporting process of the establishment and the improvements of the mapping systems and drawing your attention of the process of the grounding of the ITU as we were already mentioning in January, 18, 19 of January, we'll be getting together as European Member States and the membership of the ITU to discuss ‑‑ to discuss in details how to prioritize our efforts in the future, in particular for Europe.

I will call upon all regulatory authorities to make sure that we can see the future or highlighting some challenges that will be addressed by the international community, this is the time to act.

I hope this will be ‑‑ it will be interesting in addition to this, let me draw your attention and we encourage all regulators to investigate the possibility of sharing your data and the ongoing global project on the interactive terrestrial transmission maps, we're reaching out to all European stakeholders to make sure that we're acting in Europe in a coordinated way and the information displayed is building upon and publicly approved information and the differences it acts from other sources. The last item, we have to underline, we're the subject of the mapping that will remain on our agenda for some time in the operational level apart from the direct assistance from the countries that we're offering we would like to also draw attention to the mechanisms of the programs which we're setting up between countries and to the project which is going to be next year and also we're drawing attention to our extensive work in the field of the connectivity and the regional and the global level as the ITU. We hope to be able to engage many of you in this workspace, not only in operational work but also in the work of the Study Group and the three sectors of the standardization, radiocommunication and the development sector in case there is no other questions, requests for the floor I would like to invite you to join me, to say a few words for the closing and with that, we'll close the meeting Boris, if I can invite you to just say a few words.

>> BORIS JEVRIC: Dear participants, I have only nice words for this communication and all of the future broadband networks and services and it is very important for all of our countries because I think in this way we'll do the best for our operation and we will do the digital divide, it is shorter and I hope that in the near future we'll make broadband networks in all areas of our countries and in that way our citizens will be connected with the Internet and with broadband services and networks and in that way we'll contribute to have a new innovative services and businesses in our countries I would like to thank you, Jaroslaw Ponder, Julian McNeill, your team for the cooperation with our agency and also I hope that we'll solve the pandemic in the next months and probably we will sit together and exchange our experience in the different fields of regulation next September in Montenegro on the traditional international Conference for the regulators on this part of the region thank you for the speakers' presentations, they were very impressive and very useful.

I hope that all of us will have a new idea to make new services and to improve on this thank you.

>> JAROSLAW PONDER: Thank you for the kind words. Thank you to the host speaker, the captioners, to the IS department supporting us as well as to my European colleagues that are working very hard to have this event, and Julian, and Martina, and all other colleagues thank you very much for this. Dear ladies and gentlemen, as I mentioned, all presentations are available on the website. Also don't miss the opportunity to read the two papers which we prepared for you. Please note that those papers are in the draft format for any changes, improvements, additional contents should be added and this is the time to do so as we're aiming at transforming them into the proper papers and to use in the future work, the implementation of the work in the regional initiative on focusing on the ICT infrastructure for Europe.

Having said that, let me one more time thank you very much and in the face‑to‑face meetings we would say thank you, we declare the meeting closed and we wish you safe travel home. Also please have safe travel home thank you. See you on the next occasion.

Thank you!