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AND THE 2030 AGENDA/CLIMATE CHANGE
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>> ABDULKARIM OLOYEDE: Good morning, everybody.
>> ABDULKARIM OLOYEDE: Excellencies, ladies and
gentlemen, welcome to the session, High-Level Policy
session 8: WSIS Action Lines and the 2030 Agenda/climate
change.
So WSIS is a ground summit held in recognition of the
vast sweeping changes digital technologies will recognize
on our society, economy and way of life. The summit
brought together many different players in recognition of
the -- in recognition of the multistakeholder model of the
Internet and Information Society.
The 2030 Agenda acknowledges that the spread of
information and communication technology and global
interconnectedness has great potential to accelerate
progress, bridge the digital divide and to also develop
knowledge-based society.
Government in cooperation with other stakeholders are
encouraged to use and promote ICT, as an instrument for
environmental protection and sustainable use of natural
resources. Government and other stakeholders are supposed
to establish a monitoring system using ICT to forecast and
monitor the impact of natural and manmade disaster
particularly in developing countries, LDCs, and small

economies.

About half of the world's people access the use of the Internet. The other half do not. Many of them are connected live in Least Developed Countries, landlocked developing countries and Small Island Developing States. Globally, over 1 billion new Internet users have been added in the last four years.

However, sustainable digital divide persists between more and less connected countries, communities, and people. Enabling the world's people to access world's Internet and removing digital divide remains a challenge that needs to be addressed in the world community is to achieve the United Nations Sustainable Development Goals by 2030.

I would like to welcome my panelists to this session. So I would like us to kick start immediately and the first person I want to be calling upon is the undersecretary of state, deputy director of national cybersecurity of Romania. What is Romania doing to build a cyber community. Why is Romania on the top regarding the number of women involved in ICT and what do you do that is different and how do we learn from you? You have four minutes to answer these two questions.

>> MARIA MANUELA CATRINA: Thank you. I think it works. Good morning, everybody. It's hard to kick start such a technical topic in the morning at 9:00. But getting back to your question about Romania, I think everybody that is here has had to enjoy Bucharest in autumn at plenipot. So I hope you like it. I would start talking ecosystem about one line that 50 countries signed in Bucharest in September, and it said, we want all a universe and secure, affordable access to Internet for all.

I think this concludes a lot of what we are all doing here these days. I'm coming from the position in that I'm not speaking about how great the digital transformation is because now I'm getting in the mom position, okay, there are risks you should be aware of.

So talking -- getting back to cybersecurity and the national cybersecurity decorate, where I'm coming from now, we did it in three steps. We had a strategy. We had the -- the directorate established its authority for the national civil cyberspace. It's also our competent authority for supervision and control. It's also regulator. It also is authority for cyber crisis in times of peace. We do a lot of education. We do a lot of trainings. We also do a lot of collaboration. We are the

SIP. We are the governmental SIP and so on and so forth.

But we also had yesterday, the president approved a new law on cybersecurity, what did this law and why we need it is to share the pie. Who is in charge of what? There are different institutions that have different authorities in cyberspace. And getting back to that, I think one point I want to touch is how much we need young people on board in this transformation. I'm sure all of my panelists agree with it.

Now, industry has more to gain from the mind of young people than digital security and cybersecurity per se, it's deeply innovated in fresh thinking. This is embedded in young people.

Getting back to women. We could not allow ourselves to leave somebody behind and we have a deficit of workforce in every part of our industry. So it will be blankly stupid to have the women let out of this transformation. We are in a good position, because -- and nobody told me to not to study mathematics because I'm a women. We have a lot of technology on board, but not as much. In our directorate, we are close to half/half. I'm not sure this is the case in every place. And also, because I spoke about women, don't get when you are home and look for the butter in your fridge or somebody sees the blonde hair on your coat, it's a woman.

In cybersecurity, most of the time, we look for the needle in the hay and the women can do that great. So just build on what we have and bring more on board. And so it's actually -- because I'm close to the time, the -- our job to provide people with skills and mindsets, to address these emerging challenges. This is why we work a lot with universities and we work a lot with the public sector and the private sector. Cybersecurity is something we cannot achieve on our own. We have to achieve it together and together with all of you in different countries, because nobody can be cyber secure alone.

Thank you.

>> ABDULKARIM OLOYEDE: Just like you said, cybersecurity is the job of everybody, and we cannot do it on our own. And can I go to Dan now, so why has WSIS Action Line and the 2030 Agenda, why are they important and how do we contribute to fighting climate change. You have the floor and you have four minutes.

>> DAN SJOBLOM: Thank you very much. Those are two very big questions. I will start with the digital

transformation we all feel and experience, it's becoming a
fundamental precondition to participate in today's society.
We have seen that very clearly during the pandemic. And we
know to realize the full transformation, we need to bridge
the digital gap and connect all the unconnected. This is
an important step to global cohesion. It benefits everyone
globally.
     And when speaking of digital gap, we have to consider
many aspects, of course to get full connectivity, true
connectivity. We, of course, into Ed to address physical
access. We need to continue to strive to develop the
technologies and make sure that everyone has access in some
form, be it fixed or wireless.
     But equally important is to address usage and skills.
We need to ensure that there's a meaningful access for all
citizens. And, of course, in doing so, we need to be aware
of in particular vulnerable groups that we have, who are
not yet sufficiently part of the digital society, and that
needs to change.
     The two initiatives then, the Action Lines and the
2030 Agenda are closely linked through the 17 goals and the
Action Lines. To meet with the goals and the Action Lines,
we really need to work together building capacity to
connect the unconnected and fulfill the UN Sustainable
Development Goals., building a better future, accelerating
progress, gender equality, climate change, education, very
many, very important topics there.
     My organization, the Swedish regulator, PTS is
involved in a capacity building program in Sub-Saharan
Africa, which we over the last six years have had
theletture to be able to do with Stockholm University and
Spyder, who were here yesterday and the Development
corporation, CEDA, we have been able to work with more than
30 countries in Sub-Saharan Africa.
     And what we do in this project is to support the
regulators in region to fulfill their own strategic targets
and engaging in discussions in joint challenges and so on.
     Building capacities in countries and contributing to
digital development helps citizens and societies to be part
of the global world. It's very important for all the
development goals.
     Now, on climate change, the industry is one small part
of that, of course. ICTs are both an opportunity, in terms
of contributing to reducing and solving climate crisis, but
at the same time, we have to be aware that ICTs are using

electricity and so on and so forth. So we need to think of
good ways of employing ICTs to support the goals and that,
again, comes back to we need to do this together as
regulators, as governments, policymakers, but also to the
private sector. All of us have a part in this jointly.

Looking at Europe, in particular, we all know that
there's a focus on digital and green transitions, the twin
transitions we often call them. And policy and regulators
need to work on that to limit the environmental footprint.
We are happy to continue to do this together and I think
WSIS is a good place to do this.

Thank you.

>> ABDULKARIM OLOYEDE: Thank you very much. Yes,
coming from academia, I know that Spyder has been doing a
lot, and we want to thank you for what you have been doing,
and we hope we are going to continue to ensure that we
connect the unconnected, as we move along.

So the next person I would like to call upon is
Excellency, the ambassador-at-large for digital affairs,
Ministry of Foreign Affairs from Estonia. Your Excellency,
I know Estonia has been doing a lot when it comes to
digitalization. So I want you to please tell us a little
bit, in particular, how do you think Estonia -- what
Estonia is doing in terms of digitalization, in terms of
how can we achieve the WSIS Action Line and how do you
think we can continue to support girls, especially when it
comes to digitalization?

Thank you very much.

>> NELE LEOSK: So it was on. Thank you. Thank you
very much, and I'm really glad to be here and share some
of -- some of what we have done in Estonia.

I believe we are now around 30 years into what I would
say, perhaps a massive or increasingly pervasive
utilization since the invention of the browser that made
Internet available to everybody. And I think it marked, in
a way, a new beginning.

And in these 30 years, we have seen many ways and many
waves of digitalization, and tackling it now from the
sustainability perspective, I believe in Estonia, we have
seen two priorities. First, we very much emphasized on how
to make things differently and how technology could support
us in building an open, democratic, modern, efficiently
country. So I would say everything differently from what
we had before we gained our independence in 1991.

So a big part, of course, of this was to change

governance, our governing system, but in other -- and I
would say a very important driver was efficiency, how to
save costs. Especially Estonia is a very small country.
It needed to use every single person in this digitalization
and, I guess, in a way become bigger than our physical
size. And I believe this has also happened. So in this, I
would like to point out, one, two, three main issues.

      One of them is actually pooling resources. Estonia is
a small state, very early understood where we have limited
resources, we actually have very similar needs across
public sector. So instead of developing different systems
for different authorities, we, instead went for reuse of
certain components and I would like to bring here a digital
identity as such. Estonia has one digital identity and
it's used both private and public sector. Which means we
didn't have to develop it several times. We did it
together with private sector, mainly with banks, but now,
of course, the use is nationwide.

      Even when I go to a bookstore, I don't need a separate
loyalty card, its connected to my national identity. And
national identity, in a way has two functionalities, it's
to authenticate yourself, but also to give digital
signature and it's estimated that Estonia saves around 2%
of our GDP annually by using digital signature as opposed
to physical signature that sometimes may require moving
from one place to the other, when we talk about voting,
maybe even take a plane to be able -- to be able to vote.
And since 2005, Estonia has been implementing Internet
voting that currently is used by 50%, and I found this one
of the very useful things, personally, during my studies
abroad, during my work abroad, where I really didn't have
to travel or even worry about how I signed my rental
agreements, how I vote, how do I take part in legislative
proceedings, if I want to and so forth.

      But the sharing and the reuse can actually be done
across borders, and I believe this is an area where we
globally haven't yet that much explored that we could.

      So I will just finish here. So around 2016, Estonia
established a center together with Finland and now also
Iceland is part of it, where we pool our resources and we
develop certain digital solutions together, across borders.
So it means that instead of developing a similar system
that we need in Estonia, Finland, in Estonia Finland, we
just develop it once and we reuse it and I definitely would
like to see this more coming in the future, considering

also the lack of resources and especially talent that I
believe we are all struggling with. Maybe with the
exception of my neighbor.

But I know that the time is up. So I hope I can come
back to the second question in our next round.

>> ABDULKARIM OLOYEDE: Yes, we will come back if we
have more time. Thank you very much, Your Excellency.

Yes, you mentioned something that's very important,
pooling resources together in terms of achieving digital
identities and things like that. These are issues that are
very important, especially the developing countries. You
underscore the fact the need to come together and ensure
you build these things together, because no country should
be an island and this is a very important point.

Going forward, one the things that we talk about, when
we talk about the use of digital identity, the use of
technology, is the issue of climate change. So I would
like to ask the next question to the head of strategy and
policy of Huawei, EU public affairs and communication,
Dr. Hui. The issue of climate change is important, what is
the role of ICT sector in fighting climate change and
enabling green transition in our society to net-zero?
That's my first question. And then the second one is:
What do you think the industry should do in particular from
the ICT sector. Give us examples of how you think we can
actually fight climate change, because we're talking about
digitalization. We're talking about all of these things.
We also need to ensure that these things are sustainable.
Thank you very much. You have four minutes.

>> HUI CAO: Okay. Thank you, Professor.

And also, good morning, ladies and gentlemen.

We believe the mission of the ICT companies is not
just about pursuing the green development of our own, but
also about using innovative digital technology to enable
emission reduction in other industries. And also drive
sustainability across society.

So the digital ICT technologies like AI, cloud
computing, big data, IoT, et cetera, it will play an
important role in carbon reduction, removal and also
management. So according to a study report that ICT
sectors emission -- I mean, the footprint is expected to
decrease to around 1.97% of the global emission by 2030.

Furthermore, the use of ICT technologies and also
solutions can enable other sectors to cut emission by 20%.
So that's nearly ten times higher than ICTs own expected

footprint in 2030.

So when we look at the 2030, it's predicted that more than half of electricity will be generated from renewables. Also the transport industry goes electric fast. So that will be 145 million electrical vehicles on roads. So back to architectural design, and the renewable energies, it will mean all new buildings are zero carbon from 2030 onwards.

So we see the applications of a new materials, components, the architectures, the algorithms, also technologies will make digital infrastructure 100 times more energy efficient. So this is the power of the digital technologies.

So I firmly believe that digitalization will pave the way to low carbon development for our society. It doesn't matter in developing country or developed country, so ICT becomes a critical element that every individual and society can rely on it.

Also at the same time, related to the second question, we believe technology for a better planet is should guide companies' work on climate change. So particularly when we talk about Huawei, we are committed to using technology of ICT to serve the nature as well.

So we believe that innovation could address many social challenges we are facing today, much more efficiently.

So when we see around 40% of the world's population still have no access to mobile Internet and also among those hundreds of millions of people living a very remote areas are not even covered by the mobile networks.

So this has set the stage for Huawei to explore innovations are able to expand mobile broadband to connect the unconnected while using -- being able to provide good experience.

So just two weeks ago, in the Mobile World Congress, Huawei, received the best technology for emerging market world. So that's an example of how it could grow a benefit to society.

So as the saying goes, if we want to go fast, we go alone. But if we want to go far, we go together. So only when everyone goes -- works together we can make the future change. Thank you.

>> ABDULKARIM OLOYEDE: Thank you very much. If he with want to go far, then we have to go together. That's a very, very important point. And also, the issue of

innovation. I think I was so excited that we know that
technology is a thing of future, it's about innovation, and
the fact that technology can help us to actually reduce our
carbon footprint is something that we need to get excited
about, because climate change is an issue that needs to be
addressed, is an issue for sustainable development and is
an issue for the future, especially the future yet unborn.
     So thank you very much for that. We will stay on the
issue of digitalization and climate change. My next
person -- the next person I would like to call about is
engineer Marc, who is the president of the board and CEO of
4QT. So your question is, is digitalization a driving
force in construction and how does it relate to climate
change? And also I want you to address the issue of what
is needed to close the good. Relative to personal
vehicles. Those are the two issues that I want you to
please discuss in four minutes. Thank you.
     >> MARC VETTER: Thank you. Thanks for the invitation.
Thanks for possibility to be here. The problem for QTCs is
in heavy-duty vehicles. There's already 20 million of
those, that can be construction, earth moving, ships, heavy
transport, and they emit around 3.6 gigatons of CO2
emissions per year. And none have been electrified yet.
Why? It's much harder to do than in the electric cars.
     Now, yes, ICT does enable novel solutions all the
time. What we do has been enabled through academia, which
we then bring over the gap into industry, and to the
benefit of our customers. So we work closely across the
knowledge triangle with policy and academia to bring novel
concepts into industry and into regulation.
     So I will give you three examples of that. One is the
digital twin that enables trust and robust identification,
and that is especially important to us with respect to a
circular economy. So we can take legacy equipment from
customers and make it more sustainable in the next
iteration. The second one is the Internet of Things,
telecommunications standards, which enable the tracking of
use and monitoring of emissions, and this in turn enables
the subscription model. And research has shown that a
subscription model lowers emissions. Why? Because down
time is lowered.
     So if more construction companies can use the same
machine, the same machine is used more, we need less
machines for the same amount of work, and that means we can
increase the margin and leave more material, like iron,

steel, in the ground and that will also impact climate action, Sustainable Development Goal 13.

Third, geolocallization. This enables more intense regulation, inner city zones without extra overhead. You can just put that into the cloud and have more intense regulation and different zones. So I talk about free flows. One is material, circular economy, and the third is the regulatory flow.

So to the second question, closing the gap. I also don't have the exact answer to that, but it's clear to me that it's a multistakeholder problem. And I think there are benefits that you want to talk about. For example, for policymakers, that to work together with innovators and start-up, because it's by talking to them that I find out what is feasible already today, and I find out more by talking to start-ups than to incumbents because start-ups are incentivized to grow in a new and changing environment.

So they are incentivized to be more ambitious and to have change come into the mark. And that's why I'm also active in the political organization of youth in the content of Zurich, Switzerland, and Action Line 4, and Sustainable Development Goal 4 for a quality education.

Then I will talk about Switzerland and especially Zurich, where we set out the regulatory frameworks. We generate a mix of incentives and fines which are solution-oriented. And what happens is that several state actors then launch lighthouse projects, construction projects, for example, that take emissions into account through fines. And now since January, every Swiss listed company, Swiss stock exchange listed company needs to track their emissions and report them. In two years they need to start executing their plan to reduce emissions.

Think about how long these construction equipment are in the market. The average is around 10 years. In some cases, it's 40 years and if we replace them today, it has an immediate and longlasting impact on the reduction.

I will fin with a last but not least word of caution. Regulating a specific solution is tempting in order to gain speed, however, a regulatory bet on the wrong technology or excluding the wrong technology can set us back. And this weighs heavily against the potential increase in speed going all in.

So therefore, I think it's highly important to set the policies while staying technology agnostic as possible, to let the engineers and the market figure out the best

technical solutions.

Thank you.

>> ABDULKARIM OLOYEDE: Thank you very much. That's an area that's very important to us, especially those of White House are engineers because sometimes we think there's this over regulation, but at the same time, the regulation is something that is important, especially in order to keep things going.

So that's something for us to think about, and thank you very much for that wonderful presentation.

My next speaker is going to be His Excellency engineering interKundo Mathew. Deputy minister, Ministry of Information and Communication.

Please explain, achievements realized so far, and for the future development plans that your country Tanzania has in relation to information and communication infrastructure.

I would also like to ask you, because I know the cybersecurity is a very important issue for developing countries and even for developed worlds. So I want to ask you a question about cybersecurity. Cybersecurity is key in the cyberspace. How fast Tanzania going in ensuring the user confidence in cybersecurity space is enhanced? Your Excellency, you have four minutes.

>> KUNDO ANDREA MATHEW: Thank you, Professor.

First of all, good morning, ladies and gentlemen. In terms of international connectivity and domestic connectivity, Tanzania, strategically were placed in the position that we are because we are the gateway for the most originallal and landlocked country around Rwanda, Burundi, and Congo, et cetera, et cetera.

We have some initiatives, which lead our country, that we have to live with the space of the changing of technology. The country started construction of fiber optic a domestic, whereby we have more than 80,000 kilometers, athe country. And currently we are in the process of construction of another 4,442 kilometers, which our target is to reach 15,000 kilometers by 2025. And actually, currently, the national ICT broadband backbone, we are operating, but we had initially with 200 GB, gigabyte, and now we are expanding to 800 GB.

But also we have people pushing the government to make sure that the Internet penetration moves from 45 to 80 by 2025. These are the initiatives that the country is pushing forward to make sure that we move forward.

But also, we have with international submarine cables which connect the country, which we have Secom and we have another application by one of the submarine cable countries to Africa, which actually we bring about the competition, and make sure that the cost for the communication services goes down, because of the competition.

Also we have spectrum auction. In 2022, the government conducted an auction for the spectrum assigned, 700 megahertz to 2300 megahertz, and also the spectrum auction of this band will contribute to advancement of the country mobile and the flexible infrastructure. And capability which will serve as a catalyst for the national economic development.

Also we have increased the access to the Internet, had and has increased with the estimate around 49 users per 100 inhabitants. This is achieved through the government initiative, a provision subsidy to mobile operator currently operating in 2G technology to advance to 3G and 4G in order to make every person to have the access of Internet.

We also understand that using the Internet, you have to -- there as a lot of data which can be collected. So the government makes sure that we have three tier data center which can facilitate the network operators to keep their data around a safe place.

But also, last year, the country made sure that we have this national addressing system, which we help to deliver and supply of services, including eCommerces. In case of cybersecurity, cybersecurity in Tanzania, we have two initiatives that in 2015, the government established the Cyber Crime Act, which help the Internet user when they misconduct or misuse the Internet or cyberbullying, which will be subjected to legal actions.

Also in order to protect the Internet users and the profiles, also the country last year, we established the law called Data Protection -- the personal Data Protection Act to make sure that everyone uses the Internet their data is safe and protected by the law. Thank you very much.

>> ABDULKARIM OLOYEDE: Thank you very much, Your Excellency. And thank you for the good work you have been doing in Tanzania. It's very important for us, especially for developing countries to ensure that everybody is connected to the Internet.

In Africa, we still have about half of the population who are still not connected to the Internet. So it's great

to understand what you are doing, especially in Tanzania.
Thank you very much, Your Excellency.

We will go to one of our online speakers who is the
chairman of the International Commission on Cyber Security
Law, Dr. Duggal. I hope you are there with us online.

>> PAVAN DUGGAL: I'm sheer.

>> ABDULKARIM OLOYEDE: Thank you very much. I will
ask you two quick questions. We are talking about the
issue of cybersecurity which was mentioned by His
Excellency. How important is cybersecurity to access the
Action Lines. And how do we ensure that the cyber world
can also help us fight climate change? You have four
minutes? Thank you very much.

>> PAVAN DUGGAL: Thank you, Mr. chairperson. We are
dependent on date, and every stakeholder is a data
broadcaster and data transmitter. In this ecosystem, we
are beginning to see that cyber attacks and cybersecurity
breaches are becoming the new norm of the day. Well, every
day we find some new cybersecurity breach or something
happening one way or the other. And with the advent of
newly emerging technologies, it's getting even more worse.

In the year 2022, the world lost more than $6 trillion
to these cybersecurity breaches and by the end of the 2023,
it is anticipated that the world is likely to lose more
than $8 trillion thanks to these cybersecurity breaches.
And with these kinds of massive cybersecurity breaches,
there's a need ultimately for building confidence and the
security of the people in the use of ICTs.

And in this particular regard, my personal opinion is
that the WSIS Action Line 5 can contribute in creating a
new world order, where enhancing cybersecurity will be the
norm of the day, and adopting cybersecurity as a way of
life will be part of our daily culture.

Now, let's take the recent comment, chat GPT has as an
artificial intelligence language, model algorithm has
already been used for the purposes of developing and
generating a new kind of malware which is capable of
non-detection by existing anti-malware products. Further,
cyber criminals are using cybersecurity breaches using
these AI language algorithms like ChatGPT. We must be in a
way to regulate the artificial intelligence as a paradigm.
Why? It has a huge problem of bias and discrimination.

Further the actions of a global law on cybersecurity
is compounding the entire issue. The absence of adequate
norms in cyberspace is one big area that's contributing to

this gray zone. That's the reason why different countries
have started coming up with their own distinctive national
laws on cybersecurity. And I think this vacuum at a global
level means that there will be a need for far more
international and legal cooperation on cybersecurity which
is a trust area of WSIS Action Line 11, already the United
Nations and the committee on cybercrime is negotiating and
drafting an international convention for prevent the misuse
of information and telecommunication technology for
criminal purposes.

A number of aspects pertaining to cybersecurity are
being sought to be dealt. With further with the advent of
new technologies like Metaverse, Internet of Things,
Internet of behavior, blockchain, and quantum computing,
this' a need for ensuring that these emerging technologies
do not become the hot bed for cybersecurity breaches,
rather these emerging technologies need to be harnessed to
promote peaceful and inclusive society, and help in
Heralding of strong institutions in this regard. With
ransomware attacks becoming the new normal, there's a big
problem. Every 11 seconds, a company anywhere in the world
is becoming a victim of a ransomware attack. And this is
the reality position. The time has come that we need to
focus on cybersecurity of ICTs, which is broadly covered in
WSIS Action Line 5.

Further, the legal provisions are concerning the
regulation of cybersecurity and emerging technologies
requires a much bigger boost and trust at international,
regional and national levels, as is embodied in WSIS Action
Line 11, which contributes to peaceful and inclusive
societies for state sustainable development, providing
access to justice for all, and build effective, accountable
and inclusive institutions as part of Sustainable
Development Goal 16.

Further we must need to appreciate that the golden age
of cybercrime has already begun, with the coming of
COVID-19. And that being the position there is a huge
challenge that's awaiting us, because the global costs of
these cyber criminal aspects are constantly getting
enhanced. And now with more and more state and non-state
actors, using the Dark Net for the purposes. Launching
such cybercrimes and cybersecurity breaches means that the
time has come where we must focus back on capacity building
as also eLearning, which is in tune with actualizing
Sustainable Development Goal 7.

>> ABDULKARIM OLOYEDE: Thank you very much. If we have time, we will come back to you for your concluding words. I need to move on to the director of the UN Brief, and I will be asking you some critical question, especially on the issue of climate change that we have been talking about.

What are the necessary steps to make policies to address climate change. And how crucial are the members the private sector. Thank you very much. You have four minutes.

>> MAYA PLENTZ: Thank you very much, Professor, for your question. Welcome, ladies and gentlemen.

So what a difference three years make. I started the UN Brief. It's my own publication independent that covers the United Nations and its agencies from the PRISM of emerging and new technologies in May of 2020, during the pandemic.

We had 300 subscribers then. Now more than 12,000.

Climate change and digital divide are our most popular stories. When I was at UN headquarters in New York in the early 2000s, producing their first website and the daily news and long features, Brazil had 4,000 people with access to the Internet. Now there are close to 200 million people.

First ITU World Summit On the Information Society took place in 2003. It was a huge affair with 190 plus countries participating. The telecoms eager to deploy in the developing world. Huge financial opportunities for all involved.

Fast forward 20 years later, we had just a few weeks ago, the first UNESCO global summit for platform governance and freedom of expression. Now, nowadays, we have to look at tech innovation and tools that will advance, that will permit us to get to the next level of prosperity, redistributed wealth, while using the Internet to increase sustainable international trade, healthcare across borders and support biodiversity in the high seas.

For that, we need first, to commemorate the agreement of the treaties of the high seas that was just finished in New York. Technology will play an immense role on discovery and cataloging of species. So national programs for innovation must invest in research in the deep sea.

Second, we need to address the skilling of women and girls in digital tools so they can actively participate in the digital economy, better paying jobs, creating tools,

developing programs, not mindless underpaid soul-crushing data entry.

Third, we need a skilled workforce in engineering, math, and the natural sciences, with a broad education in the social sciences, the humanities, the arts. And then we need to proactively engage with the private sector.

This private sector partnerships are fundamental for government sector administrators and up UN officials to acquire the knowledge necessary for them to evaluate the technologies that they employ and require for their organizations.

The private sector has another role too that can help scale commercial opportunities with governance and policies in place, that creates shared wealth. But none of these aspirations can take place also governments and multilateral organizations invest in media literacy and digital infrastructure. Both within their institutions and in the programs that they roll out.

Thank you very much.

>> ABDULKARIM OLOYEDE: Thank you very much. And thank you for sticking to time. Yes, I think we have about 10 minutes before we end this session. So I will try to -- I don't know if anybody sitting in the room or somebody online, if you have probably a comment or question, I can give you one minute to do that.

While I also would like my panelists to think of something they can say as a parting word for 30 seconds. So I will give everybody 30 seconds for you to say something. So is there anybody in the room or online that has a question, if you can direct it to one of my panelists?

Or a comment?

So while we are doing that. Yes, go on, please.

>> AUDIENCE MEMBER: Could each panelist give one example of how they are measuring and monitoring their own organization's impact on the wider environment of digital tech, beyond just climate change and waste?

>> ABDULKARIM OLOYEDE: Thank you very much. I think that's part of their 30 second parting words. Do we have any other comments from members of the audience?

Okay. So I will start with 4QT, for you to give us your parting words in 30 seconds.

>> MARC VETTER: Thank you. So we use -- we use advanced techniques like modeling requirements of engineering in cost functions, for example. That's novel

and I teach master and bachelor thesis students that. I
would say that's an example.

>> ABDULKARIM OLOYEDE: Okay. Huawei?

>> HUI CAO: Actually, I talk about quite broad
examples and user cases that we are collaborating with the
broad industry in different sectors. For instance, in the
agriculture sector, the challenge is about how to reduce
the use of water, pesticide and fertilizer. So those are
challenges for the food, safety and security and also
protecting environment through the ICTs, through the 5G,
through the sensors, the IoT connectivity. That provide
additional capability for the farmers to measure the proper
use of those elements.

Eventually, by better understanding and collecting the
figures from the field, that could enable the farmers to
significantly reduce the use of a fertilizer and pesticide
up to 80, 90%. So those have been identified as, you know,
quite interesting cases, how things are broadly used by
more and more farmers across the world. So that's a
typical example.

>> ABDULKARIM OLOYEDE: Thank you very much: Your
Excellency, the ambassador for digital affairs, Ministry of
Foreign Affairs, of Estonia.

>> NELE LEOSK: We see how much time and resources we
save, for example, from reengineering our own processes,
but it's still mainly about the target group. And it's not
only, let's say the economic benefit, for example that we
have measured with the digital signature, that we save 2%
of our GDP as a state, but it's also about improving the
relations between the government and the people and also
economic players. So this is more by studying the target
group. So I think that would be all from my side.

>> ABDULKARIM OLOYEDE: Thank you very much, Your
Excellency.

You are next.

>> DAN SJOBLOM: Thank you. So I'm representing the
national telecom regulators here, and as such, we are more
and more getting into collaboration with our environmental
agencies, in terms of the green and the digital twin
technology developments and challenges. We do a lot more
collaboration with industry, and in our -- in the European
space, our European collaborative groups for spectrum
allocation and regulation of the industry, the green
technology development is high on the agenda.

>> ABDULKARIM OLOYEDE: Thank you very much. Your

Excellency, you have 30 seconds.

      >> KUNDO ANDREA MATHEW: I think when it comes to digital engineering, and the alternative tax flow to the manufacturing and to the advancement of electronic issues, is the country. First of all, we have to -- we have to set up from the policymakers and to prepare the environment for the compliance.

      And actually, I think this it should not be attacked as an individual country. This is a global issue. This has to be initiated from the high level that the EU has to be part and passel of whatever have to be happening in the engineering sector, according to the way how the technology is changing.

      As my country, we are looking at, it the ewaste, the electronic waste, that this is just like kind of recycling, recycling of every product, which comes out of the engineering part of electronic product. That's exactly that as a country. As a globe, we have to focus on that, to work together to make sure that the environment and the weather and the climate change are being preserved in the sense that the world continues to be a safe place for everyone to live, I think.

      >> ABDULKARIM OLOYEDE: Thank you very much, Your Excellency, for that.

      Ms. Catrina, you have 30 seconds.

      >> MARIA MANUELA CATRINA: For a government, it's sometimes not easy to measure the impact of his measure, of what he did, but at least, in this field, Romania must have done something good. We have more than 80% of the GDP by ICT, and it's growing. The sign security director, technically we deploy sensors and we measure a lot of our decisions.

      But also I think I strongly believe in building the community around the cybersecurity culture, having on board universities and education, having on board NGOs, having on board all the private sector, because only together as a golden, let's say, quadrant or -- and it's not only lateral in one country. It has to be around. It has to be multispatial figure, we can deliver this together.

      But just for climate change, one good advice that we give all of our kids, delete your emails and don't keep all that trash in the servers because every time you get to the server, there is a climate impact that you don't measure. And I want to add, change the toys you give to girls and to boys. And we have more young people on board in the

digital transformation.

Thank you.

>> ABDULKARIM OLOYEDE: Thank you. Director of UN Brief, you have 30 seconds. Please we can stick to 30 seconds.

>> MAYA PLENTZ: Well, what we do at the UN belief, we started during the pandemic. We have been from the beginning doing interviews via videoconferencing, which was not that common before because people -- why don't you come to the office? Or, you know, you would have a studio. So that has greatly helped in the sense that our environmental impact is much less than it would be.

The other thing is that we talk more about the issues that matter in terms of addressing the gender digital divide, and climate change, and not a lot of publications do focus on that. So it's very important that we have really the voice of women and girls, more prominent when we talk about the UN and its digital transformation, because we don't talk enough about that.

I know we have been quite good about bringing toward the issues and debates and discussions about it every year, but we still need to do much more as you all know. I take it that as very important, because as you probably know also, climate change is impacting women and girls much more. So thank you very much.

>> ABDULKARIM OLOYEDE: Thank you very much. Thank you, everybody, for coming to this session.

One the things or the critical things that we have taken away from this, we cannot do this alone. We need to make sure we engage the stakeholders, the critical stakeholders and everybody in trying to achieve that we connect all the unconnected. And in terms of having a sustainable development -- sustainable -- achieving the Sustainable Development Goal by 2030.

The final summary, will be provided during the closing session of the high level panel and this will take place later today between 5:00 and 6:00. So I thank you all for attending this session. And thank you, thank you, thank you.

(End of session 10:01 a.m. CET)

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