SPECIAL COMMISSION ON FUTURES
(Meeting held on June 23, 2022).

THE CHAIR.— There being a quorum, the meeting is open. (The time is 16:12). —As we agreed at the last meeting, the idea for today is to start the first thematic axis, whose coordination and facilitation will be in the hands of Legislator Cal, who has prepared it along those lines together with our advisers and with those who are accompanying us in this process: Ms. Lydia Garrido, Mr. Bruno Gili, and Ms. Inés Fynn. The floor goes, then, to Legislator Sebastián Cal.

MR. CAL.— Thank you very much, Mr. Chair. Good afternoon to everyone present. First of all, I want to greet the experts who are with us today. I also want to express my special thanks to the person who has been accompanying us over all these past days, Ms. Lydia Garrido. In that regard, I would like to suggest that her accompaniment be as in-person as possible, since I believe she has knowledge on this subject that will contribute a great deal to continuing to coordinate this commission's future activities. The first theme refers to “Vectors of transformation and emerging trends in the world of work in the twenty-first century.” I am not going to go on for long, because time is really short. The idea is that each of the experts can give a statement on this topic of about five minutes, and that once that time has passed there will be an exchange, and then another five minutes to develop in somewhat more depth the questions that may arise. At the last meeting, three points had been discussed on which it was considered important for the experts to expand, and we understand that they are appropriate.

The first is to identify the main vectors and phenomena of change in the larger context in which we are embedded, to distinguish some of their interlinkages, and to analyze the cross impacts of technology as the main vector, but there are also others that likewise carry the potential for disruptive change. It is important to look at the interrelation with other dimensions and vectors of transformation. After that, it is also proposed to identify threats, opportunities, strengths (enhancers/enablers of change), and weaknesses (inhibitors/obstacles). Finally, based on the foregoing, the proposal is to suggest challenges that are the main areas to delve into and to generate information for decision-making and for defining actions. For my part, Mr. Chair —and I think all the other members of the commission will agree— I understand that we are beginning a new phase in which

we will work more closely with the technical staff, and this will also drive the work that this commission will be carrying out. So, if you agree, let us give the floor to the experts so that they can begin to develop these topics.

THE CHAIR.— To start this meeting, the floor goes to Notary Guillermo Dutra.

MR. DUTRA.— Thank you, Mr. Chair. First of all, I want to express my gratitude for being allowed to be part of this commission and to extend my congratulations to Parliament and to the legislators who make up this working commission, through the Vice President of the Republic, Beatriz Argimón, and the chair of the commission, Rodrigo Goñi. Without a doubt, what has been put forward with this initiative is to take up a topic that is right there on the country's development agenda and that, as far as work is concerned, has been under analysis from 2016 to date. I always remember that the first reactions when the topics of Industry 4.0 or automation were raised led people to think that the consequences were Jehovah's punishment of humans for building the Tower of Babel and, at the very least, that produced confusion, not sharing the same language, and dispersion. However, as time has gone by, it has been shown that opportunities are being generated and that there are certain variables that are undoubtedly present and that we must learn to manage in this context. These variables were addressed, very seriously, in the first phase this commission had last year, but it is worth taking them up again here. For my part, I would point to four variables.

One of them has to do with demographic aspects. Clearly, the country's demographic dividend expires in 2040. That presents us with a political strategy that assumes that a large part of the adult population in the labor market is called upon to reach a high level of productivity in order to finance the social protection matrix that supports children and older adults. There is another topic that has also been talked about quite a lot, and it is a variable that weighs on us more and more: digitalization. This hits at the level of organizations, of our lives, and of the knowledge we are required to have. We are already talking about levels that have to do with digital citizenship and also with the knowledge that allows us to remain in the labor market. Another of the variables has to do with diversity. In this regard, migratory flows are something we have to live with. The changes that digitalization generates in the labor market make us face processes of permanent retraining and the emergence of new profiles that we are obliged to address, as well as to identify gaps and discover mechanisms for insertion and for responding to those demands for qualifications that arise. The last variable has to do with caring for the environment. This is something we must also keep in mind in the different decisions we are making. We have to know how to manage it and incorporate it when it comes to the subject of work.

There is something that was said last year that I think is worth taking up again here. We are obliged to analyze this with a global vision, but with a focus on the local. We are part of a global community. At the very least, the decisions we have to make require that perspective. This implies, from my point of view, facing the challenges that are present and the deficits we have in human capital, productivity, and innovation, which are ultimately the axes that would allow us to move through this new era with as little trauma as possible. In this regard, I believe that one of the vectors that would allow us to take on this transformation would be to define a continuing training objective to ensure permanent, lifelong training for the working population. I consider that a very strong proposal, one that calls into question the institutions we have, the policies we have, and undoubtedly also the responsibilities we have for resolving it. Along these lines I identify four pillars that I think we have to start addressing in order to achieve a kind of support base that enables us to formulate timely, relevant, quality policies that offer equal opportunities in continuing training for the labor force. The possibilities of remaining in the labor market rest on having the qualifications it demands. This leads us to unify formal and non-formal training, to create mechanisms for accrediting knowledge that facilitate the transition, and to pay special attention to that demand that the labor market increasingly signals, known as “soft skills” or “transversal skills.” Yesterday we had meetings with a large company in the country, and its human resources manager told us that when they are going to hire a person, they pay more attention to their attitudes and behaviors than to the specific training they can show with certificates. For the time being, I leave these triggers on the table, sharing them with you so that we can continue the exchange. Thank you very much.

MS. LLAMBI.— Good afternoon, everyone. I want to thank you for the opportunity to be here and to exchange views and contribute what one has accumulated on this subject. In my case I am going to take up some of the topics that Guillermo Dutra raised, because I was going to go in a very similar direction. Specifically, I am going to take two of the vectors of transformation he pointed out. One of them is, obviously, technological change, which, as we all know, reaches its peak with the incorporation of artificial intelligence into production processes, but other elements of digitalization are also important, such as, for example, the expansion of platforms that mediate between supply and demand. In short, there are several issues that technology brings to the changing forms of work, which can affect everything from highly skilled jobs to those that require little skill. This is an aspect that also has to be kept very much in mind. On the other hand, there is demographic change and the opportunities and challenges it brings. On the opportunities side, we find the demographic dividend, which does not have much time left to enjoy. Here the fall in the dependency ratio appears and, with it, the possibility of having more resources. For example, in the case of

education, the school dependency ratio is falling. This means that as the number of school-age people who need to be educated goes down, potentially, with the same spending we could have more resources freed up to address education. This is something I am going to underline because I think it is one of the inhibitors or enhancers of change. Demographic change itself is also going to demand more resources to address other issues such as health and pensions, for example, and it is going to require rethinking some aspects that have to do with the potential change that technological changes bring to the modalities of work. So, on the side of the inhibitors, of how this is going to bring changes to the labor market, I want to emphasize one of the main inhibitors or enhancers of taking advantage of technological change in the labor market: education, the education systems. Ultimately, in every technological change, education adapts much more slowly than the technological world and the working world. The most important thing is that these changes are happening faster and faster and, therefore, the changes required in education systems are also increasingly important to make. Consequently, education systems in the world and, specifically, in Uruguay, face the challenge not only of continuing with the challenges they already have —continuing to increase universal access, markedly improving quality, and reducing school dropout— but also of reformulating themselves to train people in the skills that are required in this changing world. I am talking about digital and socioemotional skills, as well as some high-order cognitive skills, such as critical thinking and creativity. So the point is going to be, on the one hand, to address that, that is, how to carry out competency-based curricular reformulations that can take it into account, and, on the other, to know what kinds of pedagogical activities and experiences students need in order to acquire those that we can agree are necessary to enter society and the working world. That is, then, an important issue for education systems.

There is also another aspect that does not have to do only with formal education systems —and Mr. Guillermo Dutra also pointed this out—: I am referring to non-formal learning and lifelong learning. Here there are two things: formal education systems, in addition to taking on these new challenges, must also be able to coordinate better with non-formal systems and create bridges so that this lifelong learning can take place. At the same time, in terms of non-formal learning, there is quite a big challenge regarding how public policy can ensure the quality of those non-formal offerings and how to implement systems for accrediting —this was also already mentioned by Guillermo Dutra — those skills so that they serve people in continuing their training and labor market insertion. I believe that on the side of formal education systems there is a neuralgic point. I mentioned curricular reforms, reforms of training mechanisms, and the need for there also to be support mechanisms in this changing world —Guillermo Dutra mentioned it, although I do not know whether he was referring to the same thing—. There has to be some institution that is thinking about the issue. From the institutional point of view, we should think about mechanisms that support that transformation on a

permanent basis, because the skills and the development of those that are being required will also be a dynamic process that will need continuous backing and support. All of this is on the side of the formal system and also of the non-formal system. Fundamentally, there are the issues of quality assurance, of coordination with the formal sector, of how to accredit, and of how to focus on reducing the potential inequalities that are going to emerge —and already are— in terms of access to and use of these new opportunities.

THE CHAIR.— We thank Cecilia Llambi for her statement. Regarding the experts who are with us today, it should be said that Guillermo Dutra, who has already spoken, is the vice president of Inefop and has broad experience as a consultant at the ILO, since he has been part of its teams on these topics of work and now of the future of work; Cecilia Llambi is part of the team at CAF —Corporación Andina de Fomento— and Felipe Migues, to whom we will give the floor next, is part of the Center for Development Studies (Centro de Estudios para el Desarrollo).

MR. MIGUES.— Good afternoon, everyone. Thank you very much for the invitation and for the opportunity to share a few reflections. The problem of lining up people so convinced that education is the solution is that we will possibly repeat concepts. I will try not to repeat too much, and I will try to substantiate or explain why it seems to be one of the great tools. Certainly, for 90% of Uruguayans the labor market is the space where a clearer trajectory of social ascent can be consolidated and built. Most Uruguayans are going to contest in the labor market their capacity to develop personal projects and reach better standards of living than the ones they came in with according to their family trajectory. What does this mean in terms of learning throughout life? These are words that get used a lot, but then it is hard to land them in terms of what they concretely mean. In that sense, I am going to say two things that are very concrete for the Uruguay of today. First, the workplace where we are going to learn is tremendously relevant, because Uruguayans spend, in the best of cases, twelve, thirteen, or fourteen years on an educational trajectory. There are those who have enormous drive and also a lot of luck at birth —in lottery terms— and the rest, who are going to spend much more time in the workplace. So, if they do not learn there, if we do not create mechanisms to recognize it as a space of learning, we have a very serious problem. For companies, this implies a big challenge because they need their workers to learn to do new things, but for the education sector it implies very concrete challenges, and I would like to point out two or three. The first is the idea of accrediting knowledge, of what is learned outside of school. There does not seem to be much discussion on that, but what does it imply? That we be willing to accredit and certify that learning so that people can keep studying. Today Uruguay has quite rigid systems for doing that. The education system is hard for people to navigate, especially for the kids, because they face very early and overly broad choices, with little information and low levels of funding. There are people who perhaps finished lower secondary school and have been working for five or six years

as electricians, for whom it makes little sense to make them go through upper secondary school to give them the ability to keep studying in tertiary education. In that sense, Acredita CB is a wonderful test for accrediting basic secondary education, one that has to be looked at with great attention because it allows a great many Uruguayans, through competencies and in a single test, to validate and accredit a cycle in order to continue studying. In these lifelong learning processes, we necessarily have to reconsider non-formal education and technical education, in the sense that we possibly do not need many degree programs —thirty-five doctorates and five master's degrees— but specific specializations, that is, learning new tools and methodologies. So, education systems that can incorporate this quickly, with flexible curricula that are put together for a time and then disappear to make way for others, seems to be a very important need. Now let me point out two more opportunities that technology brings. Sometimes we think of the robots coming to steal our jobs, but, as Cecilia Llambi said, they bring a lot of opportunities. The first is to start thinking about processes of individualizing education. We are very close to supporting individual education processes inside the classroom; with thirty or thirty-five students in a classroom, to the extent that students interact with computers, if we take advantage of that information, we can think about parallel processes within the class and about that enabling very differentiated learning processes, much more tailored than the ones we see today. What are some of the inhibitors when thinking about the challenges? Obviously, I agree with Cecilia Llambi and Guillermo Dutra that the difference in preparation, or the quality of human capital in Uruguay, are very relevant. Here I want to focus on one of the topics I have worked on most —the one in which I feel most trained or prepared—: youth unemployment. One of the major causes, in my interpretation, is the gap between education and work, the distance that exists and how they look at each other, both with quite a bit of suspicion. Today Uruguay has the highest youth unemployment rates in the region. We are talking about young people between fifteen and twenty-four years old, and the unemployment gap between that age group and the next is also the largest in the region, surpassing Argentina, Brazil, and Chile. Of all the countries in the region taken together, Uruguay is the one with the biggest problem. What does that mean, or how is that a problem? There is proven evidence of the impact that entering the labor market in poor conditions when one is young has on future work trajectories. Entering the labor market in poor conditions, informally, in something unrelated to what I am studying, has a very powerful impact on people's future trajectories. The only data point we have on record is from the 2006 PISA report. School principals were asked how much influence the business world or companies have on the curriculum, and 90% said they have none. This is the only systematized and orderly data we have. I think the most serious thing is that many of those who look at it think it is a good piece of data. That is where we have the second level of the problem.

Fortunately, we have data from the INE that manages to break unemployment down by different levels. We now know that, in Uruguay, having finished lower secondary school,

having finished upper secondary school, or having finished tertiary education carries the same probability of being unemployed. This is a very relevant data point, hovering around 9%. Unemployment among university graduates is 1.6%; we can say it is frictional, because these are people who changed jobs and are looking for another one. There is a very relevant data point there: finishing lower secondary school or finishing upper secondary school is not enough to break away from unemployment rates that are higher than the average.

In 2021, with the Center for Development Studies —where I work— we carried out a study in which we analyzed 25,000 transversal competency tests of Uruguayans, with a population of thirty years of age at most, in order to get at the university sample or, at least, the upper secondary sample. I stress that there was no difference in the profiles of soft, transversal, or socioemotional skills according to educational cycles. We found that finishing an educational cycle has no relevant bearing on the mean, the median, the mode, or whatever statistic you like, in terms of that training. This is also another data point that young people look at, they are not unaware of it, and that is how they make decisions.

There is an immense challenge here. What experiences do we know of that might be interesting, or what experiences do we have close at hand to work with? There is a lot of talk about flexible curricula. At the end of last year, at SENA they were telling me that they were thinking about four-year training programs where only three years are designed and the fourth is outlined before it starts, because I do not know what is going to happen between now and three years from now. Thinking about a curriculum, about subjects, about knowledge four years out is too long a time. This is one experience, a concrete way of approaching it. We know the world of dual training, which has been heard about a lot lately and is perhaps the most sophisticated mechanism of interaction. If it is true that we learn at work, why would the school not be willing to let people learn a little here and a little there and to recognize it? The Programming subject at the UTU is a reflection of what happens in the company, and its teachers, on the basis of a test, are willing to say whether the student has learned and knows how to program. I chose this example the way I could have chosen any other.

I second another idea from Cecilia Llambi regarding robust systems of support for young people, of educational and career guidance, because the labor market is tremendously harsh for them. We must ask ourselves how we support them, how we help them make better decisions, how we help them understand that if they studied a certain thing they can work in that field, and guide them on which are the best degree programs. At the moment, this kind of interaction with young people seems to be absent from schools and from secondary and tertiary training centers.

There is another challenge that the education sector has to take on: thinking about less linear educational trajectories. That story that, once I finish upper secondary school, I start university and start working, is not much use these days. Quite likely, finishing upper secondary school, starting to work, and then university or tertiary studies will become the new reality. This confronts us with classrooms where there are forty-five-year-olds who have been working for ten years, and eighteen-year-olds who are just starting to work. How the education system adapts to address all these needs also seems to be a very important challenge.

I would like to underscore the idea of robust dual training systems. There is a lot of evidence that countries with robust dual training systems manage to narrow the youth unemployment gap. Bringing the school closer to the world of work and vice versa allows that gap to be narrowed. I think the main challenges —to go back to the beginning— are productivity and human capital, that is, how we prepare our young people for an uncertain labor market, with occupations that we do not really know what they will be, because we keep thinking in terms of occupations from ten, fifteen, and twenty years ago. We must think about challenges with a name and surname because, many times, these concepts tend to seem foreign to us, but I think four or five leads come out of this for us to keep working on.

Thank you very much.

THE CHAIR.— We continue with María Inés Fariello, who belongs to the team at the Faculty of Engineering of the Udelar. Is that right?

MS. FARIELLO.— That's right, I work on artificial intelligence applied to biology. I feel like continuing to talk about education. We are not going to change the subject, but that is clearly a vector, thinking of it as something that leaves one point and leads to another, in a certain direction. The only reflection I have left, especially because I come from a sector where employment is super negative, has to do with something that happens to us at the University, fundamentally in the Faculty of Engineering. Students get to the second year and the labor market is basically already pulling them out of the faculty. So there are questions there. Perhaps the students designed technological paths for themselves because they know that by taking certain courses they get a job right away, and that leads to some degrees not being completed, but it does mean the students have the training that is needed. This creates bad statistics, but not necessarily bad students or bad people for the world of work. Also, companies often end up complementing that training; since the number of students who have the training they need is not enough, they begin to create kind of training internships from which they end up selecting students. Clearly, that is an area where we all know there is a great deal of room.

What worries me is that when I go into the faculty classrooms I see people who are far too much like me. By "far too much like me" I mean the birth lottery that Felipe Migues was talking about. We worry about which programs to run, but I would also worry about how to attract those students to the programs. It is often said that if we go into a neighborhood and ask a kid what he wants to be, he will answer that he wants to be a soccer player —everyone in Uruguay likes soccer; otherwise we would almost have to leave the country—, because soccer is where he sees that chance for change. Parents think that if their son does well in soccer, that holds out hope for the family. Yet in that lottery, the probability that they will do well playing soccer and be able to lift the family up is very, very small. If, on the other hand, we managed to invest all that time in studying —they don't all have to be engineers, clearly—, in education, if the family had a way of giving opportunities to that student, the chances would increase enormously. So, once again, education turns out to be the vector of change.

Many times what happens is not that they lack the means, but rather —I say this based on my personal experience, from talking with people; I cannot refer to any study, but I think it is a constant— that they simply do not believe they can go to university. They believe that to go to university you cannot work at the same time, something that those of us who went through it know the great majority do. When we give a second-year exam, the number of certificates we have to deal with is very large because they all work. So myths have to be torn down, so that people know that where there's a will there's a way. Many times —as was said today— support programs have to be created that establish some kind of incentive, which could be work at companies, or we can think of some other kind of support or incentive so that they can get there.

Another fundamental vector in this revolution is information and data: how information arrives, what information is given, and how it reaches the different sectors of society so that that "you can do it" really does not remain something romantic, an "all of us can," because we know that is not the case, that it depends enormously on where one starts. It should be shown that someone who was in the same circumstances could and can, and it was not only by playing soccer but through other mechanisms. I give that example because we all know it. Going back to artificial intelligence and the opportunity it represents, I think that as a country we have to think very carefully about what kind of country we want to be. Worldwide, this is a very globalized field, in which there is a war to import brains. That is, there are countries that are mostly trainers and others that are attractors. A very big problem we have —although it is a problem of very few people, it can become a complication for the country— is that when we manage to train people at the doctoral level, the big companies —which work as big attractors in the world— take them away because they have very good opportunities. So how do we go about retaining all that talent in the country, so that Uruguay is not a consumer of ready-made artificial intelligence packages —I am putting it in a very crude way— but rather that we are creators? Just as, luckily, we are a software hub, let's hope all of this continues to be that way and that we don't buy things that we really don't need to buy. I think finding how we reach a balance is no small matter.

All of this is very much related to data protection. We know that data become a kind of good. I don't know whether one says a good of commodification, because I don't have the training to put it that way, but nowadays data become something that has enormous value.
So, when I start to base my systems on companies that come from abroad, I also start to hand over all the data to people who are not in the country. When Plan Ceibal had just been set up, that happened —although luckily it was corrected later—: the data could not be accessed because of the way things had been done.

Having the creators of information systems in Uruguay is relevant not only because it provides job opportunities —which we have to take advantage of— but also because of a matter of information sovereignty. What we do with that is no small matter, because they are Uruguayans' data, and that can also lead to work.

As a last point I want to refer to how we use technology to work. It was just said that mothers are happier because, with this technology business, they can stay home more. I was saying that I run out of my house because I have quite a lot of inertia when it comes to getting out of the house; I have three small children and sometimes it is hard to say that I'm leaving. In reality, I can stay, but what quality of work do I end up doing? Because the racket is still around me. It's true that technology presents challenges for more flexible forms of work, but those forms, which are an opportunity, can sometimes become, in a way, an "enslaving" —in quotation marks— means. When changing legislation —there is already quite a bit and a lot of thought is being given to that— we have to be very precise about not being too restrictive, because otherwise it can lead us to lose the flexibility that technology gives us. We also have to be careful about where abuses can occur. We know there are certain sectors where it is easier for a person to say that if their rights are not respected they will go somewhere else because they have the opportunity, but since not everyone has it, we must have that vector of change in the way of working that is technology, which the pandemic accelerated enormously. I repeat: we have to be extremely careful and see whether it ends up being a right or a forced obligation. So we need to think a little about that aspect. That's all of my vectors, here. There may be one more, but we'll leave it for later, otherwise it will go beyond five minutes.

THE CHAIR.— Thank you, María Inés Fariello.

MS. FARIELLO.— Thank you all. Thank you very much for the opportunity.

THE CHAIR.— If you agree, we again give the floor to Legislator Cal to give an introduction to the second part, and then we will also give an introduction so that Dr. Mercedes Aramendia, chair of Conicyt, can do everything at once, so she doesn't get so tired. You take the lead, Legislator Cal.

MR. CAL.— Well. Thank you very much, Mr. Chair. We were taking some notes on what the experts were saying. First of all, I would like to have your opinion regarding the education system and the educational options in our country. We would like to know whether you consider that they really already meet current needs. As for those of the future, I am sure they do not, but as for the current ones I believe they do not either. It would be good if all the experts addressed this particular point. In turn, we would like to know whether the education system has any way of listening to the needs of the market in particular.

I would like to leave the floor to the other legislators present in case they have any further questions to ask in relation to this topic.

THE CHAIR.— If it seems right to you, we will conclude this introduction and move on to the second part, which is focused on the inhibitors and facilitators for

the challenges that may arise, as Legislator Cal proposed. Although this, in some way, has already been raised, we will hold a second round of statements. I give the floor to Dr. Mercedes Aramendia so that she can share with us her reflections on this topic.

MS. ARAMENDIA.— Good afternoon.
It is a pleasure to be with you, and once again thank you very much for the invitation. It is truly a pleasure to contribute from our point of view. As Ms. María Inés Fariello rightly said, everything relating to technology and artificial intelligence, as well as to the various drivers that are part of the transformation, is fundamental. An essential factor for the work of the future is that people be trained in the use of those various drivers in order to, precisely, be able to meet social and economic needs, both in our country and in the region and internationally.

One aspect that I am especially interested in highlighting is that we must look at this revolution or transformation, as well as the fact of the future, in a cross-cutting way and see how it impacts the various verticals.
I think emphasis should also be placed on the importance of multidisciplinary work and on the need for professionals with diverse backgrounds to work together, given that in this way we will be able to achieve better results. As we know —and it was already anticipated by those who spoke before me— the issue of data is a great challenge we have ahead of us. I believe Uruguay has made a lot of progress in that regard.
Personally, I always emphasize the importance of the Uruguay Digital Agenda —it is the fifth agenda—, which is an evolution or a process that addresses the reality of needs and, in response to that, keeps innovating and improving the objectives and goals set. For that, I consider it very valuable to establish indicators and measure them at regular intervals, as a way of seeing how we are progressing and being able to make whatever adjustments are necessary in time. With respect to the issue of data, privacy and ethics are fundamental, so I think we must work on and deepen these questions. Among the aspects that can contribute especially as enhancers are the development of technologies, both hardware and software, as well as having robust connectivity networks that connect everyone and are of good quality, reaching one hundred percent of the population. This is fundamental. On the other hand, new technologies such as blockchain have brought a decentralized economy with new challenges in terms of virtual assets, NFTs, among others, which Uruguay is already analyzing, and that is very important. Aspects such as interoperability and the establishment of standards are important, as is attending to digital social life, which changes the way we relate to other people. This is also fundamental, because if we do not all evolve together, the gaps keep widening. It is precisely on this, on the various gaps that exist, that we must work.

In addition, there is the matter of having national and regional content, as well as the development of various use cases, which enables application and facilitates universalization. Without a doubt, investments are needed for this, and public and private

work is fundamental, along with there being security and trust throughout the whole ecosystem. The idea is to work all together, with respect, so as to exchange knowledge, because diversity and exchange benefit us all. Security is also fundamental, and cybersecurity is one of the great challenges we have in society. I believe the basis of everything lies in education.

I understand that culture is also fundamental, and this goes along with the fact that, at the level of families and households, emphasis is beginning to be placed on the importance of education, of innovating in what we are studying, of addressing the needs that exist in the market. On this point there is something that also seems very important to me, which tends to be complex, and that is the meeting point, the synergies among academia, Government, and the productive sector. I believe that if we are all more aligned, working together and looking at one shared objective, the efforts will be better channeled, we will achieve results more effectively, and we will be more efficient. So it is very important to facilitate, and for that it is crucial to identify those obstacles —whether due to bureaucracy or because procedures have always been done that way— that ultimately end up discouraging and causing the kids to stop their training because they quit studying. There is an aspect to highlight here: today we have to be studying and training ourselves throughout our lives; it is no longer enough to complete a degree and stay with that. What happens to me is that, if I do not go deeper and if I am not constantly studying, I fall behind, because everything evolves so fast that it is necessary for society to adopt the culture of constant updating, of being always studying, always asking questions and researching, and keeping up with what happens internationally. Before, for example, everything took longer to arrive, but nowadays, with globalization, speed, and access to the Internet and to the information we can have, we can train and update ourselves immediately, and I understand that this is fundamental. I think the measure of facilitating will also help motivate, and it is also important that we work on that in different ways, always keeping the target audience in mind, because we have children, adolescents, and an older population, and the whole of society has to be served. Finally, closing the presentation, I would point out that for us it is important to be close to society and to raise awareness about the importance of working all together and taking measures so that education is updated and we can generate that synergy that must exist among academia, Government, and the productive sector. Thank you very much.

THE CHAIR.— A space is now open for questions and exchanges. I am going to start with one that is more focused on the second part, raised by Legislator Cal, regarding the inhibitors and facilitators or enhancers, and also on the concrete experience of what some of you have been doing. I am thinking of Felipe Migues's work, with that mismatch, that study which is very novel and current, which in some way had a great impact on that mismatch between those looking for work and the offers that exist.

To begin with, we are going to ask Mr. Migues whether he can help us understand a little more about what his conclusions were, or what he understands them to be, looking ahead.
After that, I would like Guillermo Dutra to tell us what Inefop is focusing on today in relation to the topic we are discussing.

MR. MIGUES.— I am going to try to answer the Chair's question together with those that were raised at the beginning. As regards whether the education system meets the demands of the business world, I agree with venturing to say that it does not, but I think there is an additional point that makes the situation worse, which is that it does not even meet those of young people, who are, ultimately, the center of the education system. Both in the Continuous Household Survey and in the National Adolescence and Youth Survey, and in various surveys that ANEP has carried out for many years now, those who did not finish the cycles are asked why they did not, and the answers "I'm not interested" and "I wanted to learn other things" are as frequent as or more frequent than "I went out to work." In other words, young people are shouting: "What goes on in there does not manage to capture me," and attention is a necessary condition for learning. Evidently, the curriculum and the class dynamics have something that interferes. So the education system not only does not listen to the demands of the business world, it does not listen to those of young people either, and a big mess results.

The second question was: Does the system have a mechanism for listening to companies' demands? or How does it go about listening to them? I would say that, in a somewhat disorderly and not very systematized way, it does listen. We all know that in the ICT sector there is negative unemployment —some dare to say it is three thousand jobs—; I think the mess lies in how it connects the listening with action. I am going to concentrate on three concrete elements.
Does it have mechanisms for transforming programs in an agile and rapid way, that is, the contents of the subjects? Which programming language is taught and which is not? Then one has to see how that connects with the relevance of the tracks it offers. If you review the UTU's curricular offering, you see that it is so broad that it overwhelms me a bit and makes it hard for me to understand what the difference is between one program and another and what kind of future occupation each one leads to. The third challenge, above all in terms of a labor market that clearly demands many technology professionals —science, technology, engineering, and mathematics— would be to see how an education system manages to bring in teachers who not only have that training but are working in what they teach and have that up-to-date knowledge, that is, how they are received in the classroom. The opportunity cost of teaching for a senior Java developer is enormous, because outside they pay him much more and, in general, he decides not to do it. So how do we connect that? There we can update the offering, not only in terms of technical skills, but someone who is working on developing software in Java is going to bring a classroom culture, a way of understanding classroom dynamics that is very different. That is why I think there are three very concrete points there. As for the study that was asked about, I can say that with the Center for Development Studies we launched Buscojobs, which is a web portal for searching for

jobs that lets us ask ourselves two questions. First, it lets us identify gaps in the labor market in terms of occupations. We knew what a little more than twenty thousand Uruguayans were applying for, there were some ten thousand job openings that had been generated, and we found three big blocks of gaps. One was in the STEM world, that is, a labor market that demands software developers, engineers, but also electricity and electromechanical technicians, qualified health workers, pharmacy —that was a rather interesting surprise along those lines— and we saw that what most left them out, in terms of the applicant's fit, had to do with English and experience. English today is an essential tool for this global market that is being created, and it is also a big pending item for the education system. There is another space there for connecting things. When you talk to a young person who is looking for a job, the first thing he says is that they ask him for two years of experience and he wonders who is going to give them to him. That first job, that first connection, is a clear example of negative externalities, that is, who takes on the cost of a young person if the company seems not to want to? How do we connect things, then, to generate programs that boost starts in that direction? The second study analyzed twenty-five thousand candidates who took a test on eighteen transversal competencies —or soft skills, however you want to call them— and we looked at the valuation that 310 job openings gave to those eighteen competencies. In the different valuations we saw potential gaps, and the two most important were in collaboration and in commitment. The immense majority of companies put their valuation there; two out of three valued it at ten to twelve, and one out of three tests scored ten to twelve. That is to say, there is a very big gap there in competencies, which caught our attention a lot because they would seem to be too basic or foundational for people's development. The second of the three points that study gave us was the difficulty of developing middle managers, leaders, that is, people who were very good at what they did and who could be asked to coordinate a team of four or five people. Those skills are extremely difficult and expensive to get, and companies are investing a lot of money to train people. We see that competencies such as communication, the ability to monitor, the ability to supervise, or the ability to make decisions are part of the process of people's formation.

On the other hand, soft outcomes in Uruguay today are as valuable as or more valuable than technical competencies. We did a survey with sixty people specialized in human resources and selection processes, and they told us that, regardless of the position —no matter the occupation— they are always more important —one in three— or, depending on the position, equally important. Once again, we come back to the education system to see how much weight they have in the curriculum, what effort is made to expose students to developing those skills, how they are assessed, and how feedback on their performance is given. It is a long study that is on the Center for Development Studies' website in case you want to look at it. In broad terms I would conclude here.

MS. GALÁN.— I just wanted to make a few comments, and the first of them is that we are talking about the labor market without taking into account the gender gap. According to some microdata from the Continuous Household Survey

analyzed by Iecon —Institute of Economics (Instituto de Economía)— of the Faculty of Economic Sciences and Administration, it is clear that, of people between twenty-five and fifty-four years old, 95% of those who work or look for work are men and 66% are women. If this is observed for a lower education range, the gap between men and women is even greater. Therefore, it seems to me that in a labor market like Uruguay's and in a society like ours, it is substantial to talk about the gender gap, especially when the growth in poverty occurs more among women and children, precisely because their mothers are already poor and have very precarious jobs. So, when we talk about the changes —fundamentally the technological ones— in the world of work, it is clear that those most affected are women. This is so even for those women who have a higher educational level because, as Ms. Fariello said, they are the ones with the fewest chances of finding employment. That is easy to deduce, especially when looking at care work. When analyzing the changes in the world of work related to digitalization and artificial intelligence, we see that in mathematics and the hard sciences only 10% are women. This is not because women are not qualified, but because they have to combine their jobs with the issue of care. We know that women take care of care work or pay for those services. In an article I read yesterday regarding artificial intelligence and the fact that algorithms are what select for that labor market, it stated that, for example, on the various platforms out on the street such as Uber and PedidosYa, only 10% are women. On the other hand, on service platforms, which are the ones that allow work to be combined with care at home, the number of women employees grows, but they receive a salary 7% lower than that of men. Consequently, I understand that it is very important to take that information into account, since it is a reality throughout Latin America, but even more so in Uruguayan society. Without a doubt, all of this that we are analyzing has repercussions in other spheres that go beyond work, such as domestic violence, workplace violence, and the precarization of work. I believe that when doing these studies, the gender gap has to be kept very much in mind. In that regard, I find very important some work that is being done at Iecon, such as the work on the gender gap in terms of the changes in work and in the knowledge society. I also want to point out that when we talk about young people who are looking for work and those who enter education and university —what I said were two different things; now I am going to talk about this— we are taking a sector of society that is socially integrated through formal education. However, there are a number of young people who are being marginalized from formal education and will not access the second cycle or university because education has serious problems that are not educational ones, since although hunger is not an educational problem, education has to take it on because it is a problem of today's society. So I think all of these elements have to be taken into account because, otherwise, we are talking about the changes in the world of work for one sector of society and not for Uruguayan society. Thank you, Chair.

THE CHAIR.— The reason we are here is to incorporate all perspectives and views.

MS. NANE.— Good afternoon to all the guests and to my fellow legislators. I was left thinking about several topics, but I am going to try to sum them up in three points. Here people spoke of the birth lottery, an expression that makes one think about how the State should act in the face of it; it is called regulation, carried out through public policy. In fact, I think that is the topic that brings us together, because what we can do from here is begin to understand which public policies can be carried out. When we talk about a public policy, we have to understand that it must be seen with a comprehensive approach. We would never have had Plan Ceibal —if we are talking about integrating knowledge— if we had not had an Antel that rolled out connectivity across the entire national territory. This is a very clear example to understand. In that sense, we have to start looking at the role of the State in public policy and as a regulator, and I am going to give two examples. Artificial intelligence has two big legs: the algorithms and the data used to train them. Ms. Fariello spoke of not consuming artificial intelligence packages but creating them because it gives us a certain sovereignty in algorithmics, and then of security in the data we are going to use to train those algorithms. I relate that to what Legislator Galán said about the bias that can be seen in application, inasmuch as algorithms learn from the data they are given. So there is a big issue that has at least three legs: the sovereignty of the data packages with which I train the algorithms, the sovereignty of the programming of the algorithm itself, and the sovereignty of the container in which the data travel. I think we have to understand it, and I thank Ms. Fariello very much for putting it in terms of sovereignty. I consider it important to have that sovereignty in access to and use of knowledge, and to understand, as Legislator Galán said, how that hits afterward. Precisely, one of the tasks that is being automated the most is personnel selection. So, who is going to get access to the work of the future? There we have an important crux. That other leg —I'm finishing, Mr. Chair— leads me to say that we have to build not only the so-called hard skills and the so-called soft skills, but we must go about building something that can cut across both with a rights-based vision. That will show us that we have to generate and put up for debate digital citizenship, that is, the citizenship of the future. People have to be able to understand what their obligations and rights are since, as Ms. Fariello also said —I am very grateful that she brought up that topic— this whole question of the liberalization and flexibilization of work that the digital world allows us also produces certain aspects of isolation and generates a vision of nothing more than individual needs. I believe it is from the side of values and of conceiving of ourselves in a community in relation to others that we will be able to work on the exercise of that citizenship of the future. Thank you very much.

THE CHAIR.— We keep enriching the inputs that will allow us to produce good reports.

MR. MELAZZI.— We appreciate the presence of the delegation this afternoon and the feedback given by each of its members. As I was listening to them, I tried to go a little to the root of the matter. The first reflection that comes to me, and the first question I have asked myself in life, is whether a person can actually fall in love with someone they do not know. I ask myself, then, whether a young person can fall in love with a life project that he can dream of but does not know, and that his surroundings do not allow him to know either. It is hard for a young person to have a life project when he never saw his parents have a formal job or when he never saw them with a book. It is hard, Mr. Chair, to have a life project when there is no dialogue in the home. Although technology is very useful, rather than calling for dialogue it invites indifference in the home. We are becoming more and more indifferent to our children. Instead of using free time to play with the kids, we devote ourselves to using technology. The time for dreaming is when one is small, and therefore that support in education must begin at home. Technology is a phenomenal tool, but let us make our mea culpa for the time we give to it and the time we devote to educating our children. Trying to go a little to the roots and understand what the future of work and the work of the future will be, we should also look at what kind of society we want in order to, precisely, have an education that fits and give our kids the life project they need. Thank you very much.

MR. GILI.— Discussing this problem generally leads us to education. I want to make a few clarifications based on the reflections of my fellow experts and the statements of the legislators. We also have a roundtable specially dedicated to dealing with this topic in more depth. If we recall last year's event, the vectors that determine the future of work are, among others, demographic changes —as Mr. Dutra and Ms. Llambi pointed out—, technological changes —about which we have talked quite a bit because it is fashionable today to discuss the technological— and globalization. Let us think that, in the end, our economy is going to be structured in terms of what happens with the economy at the global level in financial aspects, in the trade of goods and services, the demographic movements of people in the world, and everything that has to do with digitalization and data. There is also culture, which is another determining factor that is globalized; everything that has to do with the cultural and the global world, the particular, and so on. This is the context in which we are debating. Then there are the gender impacts, as Legislator Galán said, to which I would add those of age, of territoriality, and of where I am socially located. Those are the dimensions. We have to put together a document —in a way it is a commitment agreed upon among you— with a more or less shared understanding that indicates the basis on which you are going to legislate, because you are the ones who make the decisions; the Government —the current one and future ones— is going to govern on the basis of this diagnosis. We experts can contribute some data that help make better decisions on this, but not the final decision; moreover, none of us is an expert in all topics, but rather each has a bias toward what he studies or what he is particularly more focused on. I think this reflection is important to give context to the agreement

and to keep the documents in mind; there were some very interesting roundtables on these topics, in which work was done with this logic I am putting forward. Now I would like to make a reflection that seems important to me because it is heard quite a bit. Here, despite what I said, I am going to refer to education. I have a small disagreement, a different view of a topic that I believe is very present in Uruguay, across all people. I am referring to education and the social sector. I am of the view that there is a strong transformation under way in education, but I do not think it is responsible for solving the country's problems of poverty. It does need —because I believe there have to be policies for getting out of one's situation of origin and moving to something different— other institutional supports. Obviously, education has to be transformed to understand how to solve the problems of these vectors that are changing society. There, in reality, the problem we have goes beyond social sectors. It's not that we are talking about university graduates. Uruguay is the country in Latin America —I think I just sent this information to Legislator Nane— that has the fewest university graduates and the one that has the best income distribution. That is a country problem. It is outrageous and illogical, but that is the fact. Then there are the discussions of why, although those are already political and I leave them to each of you. That is an objective fact: we have the worst secondary school completion and the worst levels of unemployment, as Felipe Migues just said, at youth ages. So we have a problem. Now I recall the report that the consultant who came from the World Bank explained to us, and I also take into account what Cecilia Llambi pointed out about the demographic dividend. In twenty-first-century society we combine productivity through investment, human capital, and the ability to combine these things to grow and create development. We need to develop other skills and combine well what we do. So, if you ask me as an expert, what I say is that it seems unreasonable to me —here, in fact, I am copying Fernando Filgueira— that for the levels of GDP and income distribution that Uruguay has, we get the results we have in the level of training and in education. There we have a bottleneck, and on that I call for reflection so that it is discussed on that basis. The solutions can be several, debatable, and with different approaches, because this is not a science, even though it is evident that some things are being done successfully, but I think it is important —and by this I do not mean that anyone thinks differently from what I am saying, I am simply mentioning it so that this idea remains as a conceptualization— that it be known that we have results that do not correspond to our economic development. That is a paradox, and we should reflect on why it happens to us.

That's all.

MS. ARAMENDIA.— Mr. Chair: I wanted to emphasize the importance of science, technology, and innovation for society, and to highlight that an evaluation process of the Pencti is currently under way, which I think is very important, as is establishing indicators so that it can be evaluated. I say this because it dates from 2010, we are in 2022, and of course a great many things have happened and many social changes, in every sense, in society. Another topic I want to highlight is that, without a doubt, human rights are being seriously challenged in everything that is this future of the Internet.

In this regard I want to point out that recently, in April 2022, Uruguay signed the Declaration for the Future of the Internet, together with sixty other countries, which starts precisely from the basis of the potential that digital technologies have to promote connectivity, democracy, peace, the rule of law, sustainable development, and the enjoyment of human rights and fundamental freedoms. It is stated that we spend more and more time using new technologies and on networks, and that, of course, we have new challenges and risks on which it is important to work. There is also a vision —which I find very interesting and which is shared by all these countries that signed the declaration— that promotes societies where human rights and fundamental freedoms are protected; where everyone can connect to the Internet no matter where they are; where people and businesses can trust the security and confidentiality of the digital technologies they use; where all businesses can innovate, compete, and thrive on their merits; where there is secure, interoperable infrastructure, and where technology is used to promote pluralism, freedom of expression, sustainability, inclusive economic growth, and the fight against climate change. In short, it often happens that we have human rights that can be seen to be at odds with one another, but I think it is important to attend to the balances and seek the appropriate equilibria. I think we also have challenges with the topic of digital identity. I do not want to fail to mention the metaverse and all the challenges it is also bringing. We are evolving toward a new internet, an internet of the senses, where we are moving from two to three dimensions. We are seeing its impact on investments, on where companies and countries are placing their bets. I think there is a challenge there too, given that it is already generating the need for a lot of skilled labor to develop virtual reality and augmented reality, while we even see that suddenly we are going back to what is multidisciplinary and cross-cutting. We see people who have nothing to do with technology but who are having work meetings in the metaverse. There are even some universities internationally that are giving entire courses in the metaverse. So I think it is important that we already start having these aspects on the agenda.

MR. DUTRA.— I come back to what Bruno Gili and Legislator Nane were raising. I think the conclusion is that more of the same is a problem for the future, that is, we have to accept that the institutions we have today are not giving the answers that citizens expect. By this I mean the public sector as well as business organizations, unions, and educational institutions too. There is a very clear indicator that is showing us every day that companies today are learning spaces. Companies develop knowledge, and training in terms of relevance is better evaluated to the extent that it includes spaces for practical learning. The articulation of education with business really achieves positive effects in terms of not only labor market insertion but also learning. We are talking not only about specific learning, but also about that which has to do with soft or transversal skills.

If we agree that continuing training is a national objective to which we all aspire with an eye to the work of the future, there are four pillars that I think we must take into account and from which to begin making decisions. One of them has to do with generating information about what the demand is, what profile the supply has, and, from there, all of us being able to speak the same language. Today the business people, the formal education system, and the non-formal education system are not speaking the same language. If we want to find integrated answers, we must have objective, truthful, and up-to-date information about what is happening in the labor market and in the demand for qualifications. There is a second pillar that refers to curricular development, to training concretely. There the methodologies and the dialogues at the level of institutions and companies are undoubtedly called upon to be strengthened, to be coordinated, and to find innovative forms, in such a way that all of this enables the creation of accreditation and certification spaces. As I said earlier, today in the country those spaces are limited to what we are doing at Inefop, which is certification of competencies in the informal sector, and when we want to certify formal cycles we have one test a year that accredits lower secondary school. We are all very pleased that this test exists, but undoubtedly it is far from meeting the demand the country has today. By way of example, we put out a call to Inefop users to accredit lower secondary school and in ten days nine hundred people signed up. Last week we put out a call, based on a collaboration with the UTU, and in three days seven hundred people signed up.

Therefore, in curricular matters, in matters of certification of formal or informal knowledge, there is a road to travel, to work on, and it would give a great deal of support to the development of qualifications and of human capital. There is a third pillar, to which Cecilia Llambi referred, which has to do with quality assurance, and on this topic I return to data analysis. I believe that the generation of data and its objective analysis oblige us to reach decisions that are better suited to what the country requires.

Lastly, there is a topic that also brings us all together and makes us think from another perspective. I am referring to planning and the allocation of resources. The financing of education and training is not something that should go only through the public sphere; there must also be investment from the private sector, which should understand that the benefit of that training also redounds to the company, to productivity, and to competitiveness.

MS. SANGUINETTI.— I want to make three very specific comments. There was talk about the link between companies, the productive sector, and education. I think it is important to frame this by noting that this dialogue is currently taking place. I had the opportunity to take part, together with many colleagues, in a roundtable on the new curricular framework, in which the political parties were represented, but so were the unions, the productive sector, business associations, and so on. There we have one of these knots, and I think that within the framework of this commission we should delve deeper into its analysis.

On another matter, Legislator Galán introduced the concept of the gender gap, with which I agree, and I think we should go somewhat further. We should broaden our view to diversity in general. It seems to me that the topic of diversity is sometimes confined to a few specific thematic axes, and I understand that it is necessary to broaden the view. Third, personally, like many of us here who are passionate about education and follow these topics, I found this study that Felipe Migues mentioned, of the 25,000 tests in which eighteen transversal competencies were analyzed and there were no differences by educational levels, to be absolutely innovative. I confess that I did not know that evidence. I think that within the framework of the discussion of competencies, it is an element we should take into account in this commission.

MS. LLAMBI.— I want to make some comments on several of the points that have been discussed. First, on the question of whether or not the education system is working, I think quite a lot has already been said, but I want to add something more. We at CAF did a study in which we analyzed educational mobility, in the sense of whether or not each generation manages to surpass the educational level of the previous generation, that is, of their parents, and so on. We did it for several Latin American countries, and what is seen is that in almost all of them the proportion of young people who finish secondary school and are children of parents who had not managed to has been increasing. If one looks at the last forty years, an upward curve is noticeable in almost all the countries of Latin America, but not in Uruguay. That is a data point that should worry us a great deal. It is the lower-middle tail of the distribution: young people, children of parents who did not finish secondary school. That has remained stagnant. What did improve somewhat is the number of young people who are first-generation university students. There is even a study that analyzes what impact UTEC and the decentralization of the Udelar had on that, and the authors find that there are positive effects. We are talking about young people who are primarily children of parents who did finish secondary school and who manage to get a step higher in terms of years of education or the educational levels they reach in Uruguay. So we also have to look at the fact that we have different populations and that we need to serve them differently. At this point I return to a concept on which I think many of us agree. A new curricular framework is even being promoted now, and it is being discussed. It is necessary to change or reformulate the matter of competency-based curricula. Digital citizenship must also be incorporated, as Legislator Nane pointed out. I would add the concept of digital creativity, that is, digital citizenship understood as knowing how to use technology responsibly and safely, but also moving somewhat further toward creating new content using technology. Perhaps another step beyond that would be what the literature often calls digital entrepreneurship. Ultimately, we are talking about the capacity to solve complex problems using skills that come from computer science. So, if a new curricular framework is being discussed now, it seems to me there is an opportunity there to review and establish sequences for how we want

our young people and our children to acquire, step by step, those kinds of competencies. This covers all young people and children, but it must also be considered that if we have two such differentiated populations, we need to have a very special and different focus. In that sense, that birth lottery, which has already been mentioned, is very evident in what I have just mentioned and in many other data that can be accessed, and we have to break with that. So that is where I also think there is an important space for technology. I am not talking about teaching digital skills, but about using technology in education systems in a creative and innovative way in order to not only teach competencies but also focus, above all, on the most vulnerable young people and children. This can be done through information systems; through the use of algorithms to detect students at risk and intervene; through personalized learning, as Felipe Migues mentioned, and so on. There are many things that can be put into practice, and above all I think it is our duty as a society to attend to that population that has been stagnating for decades. Another topic is that of companies as learning spaces. This is something Guillermo Dutra already mentioned, and also Felipe Migues. Obviously, they are learning spaces. We can incorporate them, or at least analyze the feasibility of incorporating modalities that effectively integrate them as learning spaces. I also want to refer to a CAF study that looked at where workers actually get access to learning opportunities at work, depending on the type of company they are in. The reality is that learning opportunities at work are quite different depending on the type of company the person enters. Large, formal companies offer many more opportunities than informal or small ones. As Felipe Migues also said, the most vulnerable young people who do not finish secondary school, and so on, have much less chance of entering a formal company that continues to offer them relevant learning opportunities. So I also think there is a focus there on the topic of training, training in non-formal spaces with that focus, anticipating that, according to the birth lottery, among other things, the learning spaces after entering the labor market are very different for some and others.

On the topic of generating information that Guillermo Dutra mentioned, I want to say that it seems extremely relevant to me. It seems very important to me to generate information that allows us to identify where the gaps are, where the training needs are, but I would go further and try to generate a mechanism that allows us not only to do it once, but to leave in place a space where it can be done on a regular basis, using data intelligence, records, and so on. The idea is to leave in place capacities that can do it, because, by definition, that is going to be continuous and very relevant work. Finally, I want to make a note regarding the financing of education. A few years ago I took part in a study in which we looked at the demographic dividend, which I mentioned at the beginning. There we argued that if the school dependency ratio is falling, then theoretically with the same resources for education we could serve students better. This is true ceteris paribus, that is, we first have to think that we want to expand the number of students we want to serve. Precisely, if we have 60% of kids who do not finish secondary school, at

different stages of their day we have to serve those young people, and that is going to imply greater resources and, in addition, we may want to serve them better. We have the data on how much OECD countries spend, on average, per student relative to GDP per capita. I take that data point because if I considered spending relative to GDP alone, I would not be taking into account that the weight of the young population in Uruguay is still greater than the weight of the young population in OECD countries. Although we are aging, we have not gotten that far yet. So we do have a greater requirement than the average of developed countries. Therefore, I only look at the figure for spending per student relative to GDP per capita for the OECD and for Uruguay. The latest available figure gives 22% for the OECD and 16% for Uruguay. If we take that figure as a reference and even consider the demographic dividend, that is, considering that we have a certain number of students but we are going to have fewer —it is true, we are going to have fewer—, it gives us a requirement of one more point of GDP for basic education, in order to be able to serve them using the same, let's say, production function as the OECD countries. I do believe —because it is true— that there are things that can be done, such as improving efficiency. Here we can all agree that simply increasing resources is not the solution, but we must keep in mind that all these transformations are going to put pressure for more resources, even with a demographic dividend. Therefore, it will indeed be very important to design financing mechanisms, to think about how we can —progressively— go about financing all these transformations.

MS. FARIELLO.— I am going to have to make a mea culpa because I did not mention a vector from my field —which is another one of my hats—: science. I am not going to dwell on that, but I say that everyone thinks more about artificial intelligence, but as sovereignty I think science also has its role. Last time there were quite a few scientists who spoke very well, so I do not need to repeat anything they said, but it does need to be kept in mind. On another note —as a little community announcement— we are in the middle of the seminar series on "Ethics and Data Science" —a name we like better than artificial intelligence— and tomorrow we have a talk on good and bad practices in evaluating artificial intelligence systems. It is broadcast on Zoom, so, if you don't want to watch Netflix series, it is on Twitter and on the website of Cicada, the Interdisciplinary Center for Data Science and Machine Learning (Centro Interdisciplinario en Ciencia de Datos y Aprendizaje Automático). All the community announcements are there, but clearly you are invited because it is an open activity. In short, we do worry about biases. Obviously, the gender gaps in STEM are like the tip of the iceberg. Those gender gaps, long before care work, come back in relation to what I was saying about role models and the "I can." In studies that have been done on how much, for example, girls participate in the Math Olympiads, it has been observed that at the beginning the number is 50-50, and as they grow up that participation decreases a lot. That is all before getting to care work, which is another big part that takes us women out of the world of work. Precisely there is an incongruity, because the kind of digital work —when we work in STEM areas — tends to be much more friendly and compatible with the life that we women have, even though we like to say "we don't want the mental load, and we want to share it, and we want to share the care work."

That is a path that is going to take much more time than others we can take to help ourselves more. So, many times these are jobs in which, with fewer hours demanded, we manage to get better pay, which makes them much more friendly. Something that happens in the Faculty of Engineering and that strikes us is that most women study chemistry, and then, when we see where they work, it turns out to be in industry, super far from home. So, why are there more women studying chemistry? Apropos of this, a friend who is a chemical engineer, during a talk we were giving for high school students, told them that she liked engineering and that when she had to choose, she found out where there were more women, and so she went into chemistry and works as such. She's doing great and loves her job. Going back to the topic, when we think about education, we have to think carefully about how to keep students and how to attract them so that they begin. When I go to study, why am I going to study, for what, and what comes next. Sometimes parents cannot be the role model for some children because, precisely in this birth lottery, we need there to be other role models, and that is why I referred so much to the soccer player. Nowadays it is full of influencers, so we also have to look at what messages are being passed along and whether that message, once again, is "I create content, I'm a YouTuber and that's it, I took off, and it's something I have within reach." So, how we transmit information, how it arrives, and how we motivate is fundamental. We worry a lot about the content the school should have, but information is all out there today; anything I want to learn, I look for a video on YouTube and that's it. If I know English, much better, because I will be able to access a much broader amount of information, but if I only know Spanish that's fine too, because, luckily, we live in Latin America, where there is a ton of content. Clearly, knowing English, in terms of access to information at the global level, is a super important pillar. Another super important pillar is learning to learn, that is, how I access the content I need and am interested in, how I process it, and how I do something with it. Here the paradigm of formal education has to change a bit, in the sense that school should no longer be a place that has to give me content; it should be a place I go to not because I am forced to, not because education is compulsory and my parents have to send me because it is compulsory, but because I go since there are things that interest me. This does not mean I have to turn school into a circus, but that we should think about project-based learning that leads me to build the competencies I have and to work in a team. Luckily, school is changing, but it relies heavily on individual assessment, on the need to give a written test, on the need to do a dictation, on the need to assess because a single grade has to be given. We can also do this with someone who is working in a team. Moreover, work also points in that direction. Nowadays it is hard for just one person to have all the competencies needed to solve a problem; one must learn to leverage competencies, to work with other people, to speak the language another person uses, and to communicate. So, the competencies of the future are the same ones we need now, but we can change them for the future. For that reason, we should think about motivation and training. When I go to a place I like and enjoy, it is much easier for me to stay. It is important to understand —as Felipe Migues said— what I am staying for. They stopped going because they are not interested or because they think it is no use to them. So that is

the message we have to change. Obviously, by changing a bit how we teach, but also by changing the way we reach and communicate with those people who think they will never have an opportunity. Clearly, the care system has a very important role in this case, because there are young people who have nowhere to leave their children, and we have a bunch of little problems, not because they are small but because they keep piling up. Precisely, thinking about the gender gap, if I want to pursue a technology career —I focus here again because it is what I know closely—, I am going to need a lot of personal investment in order to train so that I can then get to a job that lets me reconcile a bunch of things. So, how do I support the people I need to train, from the start until they have self-sufficiency that truly lets them live, and not just survive, which are very different things?

MS. GARRIDO.— Good afternoon, everyone.
Congratulations to the members of the Special Commission on Futures and to the presenters. Everything that has been shared here has been extremely valuable and prolific.
From my place of knowledge, with a focus on what has to do with the use of the future, I believe the great challenge facing this space in Parliament is, precisely, to frame the problems in such a way that the focus of traction is the future, so as to step out momentarily from the current conjuncture and from the question that pushes from the past. This does not mean that we do not take into account what is happening today nor the importance of the past, but —as Legislator Cal put it very well— the idea is to identify —and that has been done— vectors of transformation and emerging trends that are exerting a kind of traction force for change. Although at a certain point it seemed that education was being talked about, and this is set out in the third of the axes, I believe multiple interwoven vectors of transformation emerged. Likewise, I believe the focus that in some way interconnects them, more than education, would be the importance of understanding this change of era toward a learning-intensive society. Each of you, in your different specialties, put the emphasis on learning. For that we need to rethink the institutions and the means we have, so that all of us have the opportunity to learn how to learn, as María Inés Fariello said. It seems important to me to take into account the obsolescence of knowledge, so we also have to learn to unlearn in order to learn again. So —as Filgueira said at the last event, what has changed is change itself—, many vectors have emerged and, obviously, one of them is the technological one. It is interesting that this session, set up spontaneously to see what would come up, has not been “eaten up” by it, because what generally happens is that the technological takes over the entire discussion, the entire conversation, the entire exchange. However, it was present and, clearly, as a vector that drives transformation, but the demographic aspect was also present. Beyond what was mentioned in connection with the demographic dividend, there also appeared the question of the other look at the demographic topic, which is the extension of human life, longevity, and that this leads us —as some of you pointed out— to having to rethink life cycles and, therefore, also the needs for learning and modes of learning. I am referring to

thinking about how someone who is eighteen and someone who is forty-five share a space and, I would say more, someone who is sixty or seventy. It would seem that those are the needs of these times. New spaces that emerge connected with the technological were also discussed, which, because this is a commission with a future-oriented approach, we have to enter, and these are virtual spaces. Beyond the name metaverse, they are those spaces where one learns, where one trades, where one relates, where one interacts. Something else that is extremely important that appeared is this as a novelty in the relationship between humans and non-humans, the new frontiers that the technological opens up in the construction of technology that generates reality, in which we have a say. Therefore, what Legislator Nane mentioned about bias in coding is extremely important. In short, we can see that the vectors that have appeared here today are multiple. The one concerning the paradigm shift was also mentioned. That is another of the characteristics of these changes of era or of an era of change. One of the vectors that I find striking has not taken on a presence is the one that has to do with stress on planetary boundaries, although Guillermo Dutra mentioned the aspect of caring for the environment. The vectors of transformation in the world of work have to do with the situation of stress on planetary boundaries that we are living through, a situation that we really have to internalize, in changes of both production and consumption modes. Thank you very much.

MS. NANE.— Mr. Chair: I am going to make two community announcements, nothing more. The first is that tomorrow, here in Parliament, at 09:00, we will be hosting a debate precisely on the use of artificial intelligence and automated facial recognition, as a way of positioning Parliament as host of future-related topics that are important to consider. We are doing it jointly with civil society organizations. So, if tomorrow you don't want to watch Netflix, you have a ton of things related to artificial intelligence. We put together a great program, very varied. The second has to do with the following. I arrived a bit late to this meeting because I was at the Science, Innovation, and Technology Commission receiving Dr. Rafael Radi. What is important about science, about research, and about involving not only the productive world but also the social world when we think about science and research is that this gives us a foundation for the strategic thinking that we, as a small country, must have. In that regard, I don't know whether they mentioned the importance of developing abstract thinking. Chess is a great tool for this. I am not saying this as an outstanding player by any means. I'm at a super-beginner level, but in general, abstract thinking points not only to the curricular question but to being able to solve a model, to elevate the model of the problem and bring it down to reality. In that exercise of going up and down the levels of abstraction I think lies a large part of the ability to look ahead. Thank you very much, Mr. Chair. You have been very kind, as always.

MR. CAL.— Thank you very much, Mr. Chair.

I am going to be very brief. I simply want to thank all the experts who have been with us today. We hope that the results we will shortly have from this commission will be a source for consultation, not only for those of us who are members of it, but for all legislators. The idea is that they can consult the elements that will emerge from here, which will undoubtedly be very valuable. This commission has been very innovative and I am convinced that it will fulfill a very important function in an anticipatory governance that, undoubtedly, we need. All of us who are members of this commission thank you for your presence today.

THE CHAIR.— In closing, I remind you that we are also going to have —I am sharing this with the experts who are with us today— four more meetings. The second meeting will have to do with “vectors of transformation and emerging trends that imply rethinking economic practices and value production in the twenty-first century,” which will be coordinated by Legislator Nane.
A third axis will deal with “New skills for the twenty-first century: Lifelong learning” —which was talked about quite a lot today— and will be in the charge of Legislators Melazzi and Sanguinetti.
The fourth meeting will relate to “Long-lived societies (100+): Transitions toward a future of longevity. Its impact on the world of work,” and it will be Legislator Gloria Rodríguez who will be in charge of presenting.
And, finally, “The governance of the work of the future: regulation and labor policy in a change of era,” which will be coordinated by Legislator Galán. Of course, any of the other legislators who wish to take part in preparing those meetings will be able to do so.

We are being told that the senior leadership of the UNDP is arriving. As you know, the United Nations Development Programme is accompanying this commission. It is not lost on anyone that it supports programs and projects related to this topic. The UNDP and the UN today are placing a great deal of emphasis on the work of anticipatory governance.

I said at the beginning that at an event held last night, in which several government officials, legislators, and mayors took part, the Administrator of the program at the global level, in a good part of his message, referred especially to the importance that the UN and the UNDP —the UN’s national Resident Representative was also present— give to precisely what we are doing here. In a few moments we will have a very brief exchange; the Administrator simply wants to express his support for what is being done here, both in Parliament and in other spheres of anticipatory governance. Obviously, we will, very briefly, give him a review of the steps we have taken so far. We are also going to take advantage of the fact that the secretary general of Parlatino, Legislator Juan Rodríguez, has begun a process to create a forum of futures commissions from all of Latin America. At the UNDP level they were in full agreement about supporting that process, and it has been understood that, even though our process is very incipient, we have things to contribute at this start at the Latin American level.

Beginning in October we will be taking part in a more global forum, with a first meeting in Helsinki, Finland, which is the pioneer in all these processes of anticipatory legislation or governance in general.
Therefore, it would be very important if you could stay a few minutes to receive the senior leadership of the UNDP. I reiterate that it will be a very brief meeting. The meeting is recessed. (The time is 18:12). —There being a quorum, the meeting resumes. (The time is 18:37). (UNDP officials enter the room).

MS. TEIJEIRA.— Good afternoon, everyone. We give you the warmest welcome to this meeting, to this dialogue activity that we begin now, in the framework of the visit of the Under-Secretary-General of the United Nations and Administrator of the UNDP —who is at our side—, Mr. Achim Steiner. I take this opportunity to greet the other officials present: the Assistant Secretary-General of the United Nations and Regional Director of the UNDP for Latin America and the Caribbean, Mr. Luis Felipe López-Calva; the UNDP regional representatives who are in Montevideo at this time; the legislators who make up the Special Commission on Futures, and everyone here. For me it is truly a privilege —as a citizen, but also as a journalist— to attend these presentations, these debates that have been taking place over several months on topics that are thought of in the long term. I said that, as a journalist, it is also a privilege because it is important to generate these debates, to have them be public, to have them be open, so that they allow us to think and to access all the information being worked on, in an experience of thinking about future scenarios that is nonetheless innovative, in which, as always, Uruguay is at the forefront. Needless to say —they will do it better than I will— we live in a world in which certainties are ever fewer. It is not the era of our grandparents, in which it seemed that the world was much more bounded or gave us many more certainties, especially when we are still emerging from a pandemic that has left us with more uncertainties and upheavals at the social and labor level. In terms of women's labor participation alone, we have gone back more than a decade, and we have collapsed health systems. Perhaps that did not happen so much in Uruguay, but it did in the world. It is on the topic of work, which is one of the sensitive points because it dignifies people and places them in a position in society, that this Special Commission on Futures has worked. It is no small thing that this debate is taking place in Parliament, in the house of democracy, because all the currents, all the sectors of opinion in the country are represented here. Sometimes it is good, if there is no unanimity, to put those differences on the table in order to grow. I should tell you that this activity will feature statements by legislators who are members of the Special Commission on Futures, and we will also have the participation and presentation of Mr. Steiner, as the representative of the United Nations in this experience in which Uruguay is also at the forefront in thinking about those future scenarios. In turn, Juan Martín Rodríguez will be with us representing his work in Parlatino on these topics.

THE CHAIR.— Good afternoon, everyone.
We welcome Mr. Achim Steiner and, in his name, the entire delegation; Mr. Luis Felipe López-Calva —who has already visited us, I think last year—; Mr. Stefan Liller, UNDP Resident Representative in Uruguay; the entire UNDP team, and all the resident representatives who are with us today.

In this setting it is not necessary to go on at length —and I will not— about why anticipatory governance is important and, in our case, as parliamentarians, why it is important to legislate in advance. We all know that the times we are living in, with their accelerated, permanent, and profound changes, no longer allow us to do what we used to do, when the only task we legislators had was to look at the reality that had already consolidated —not even the one that was more or less taking shape—, the customs, the behaviors that had already developed and consolidated; legislation fulfilled its role by adapting to those new behaviors. That was fine for a while, because society moved much more slowly and the best that legislation could do was regulate and set the rules based on what was already given. Today we all know that this cannot go on being done because the changes are so rapid that that future we talk about so much is already beginning to be generated and to appear in the present, in the emerging trends, as our documents say.
That is why the UN and the UNDP, among their main objectives, have prioritized support for anticipatory governance. In our case, among the essential characteristics and requirements of anticipatory legislation is that it must be done collaboratively. It must be done with internal collaboration, and that is why today we are ending a meeting in which there was an exchange with experts on the topic of the work of the future, the future of work. These are experts from different fields —as I said, they are experts on the topic of the future of work— and also from organizations at the local and international level, because the characteristic this world presents to us is globality, globalization. So, the UNDP might want to produce its own white paper on anticipatory governance, but it would remain half-done if it did not do so with all the other parties involved. The same would happen to us: if we wanted to do this without the expert knowledge it requires, we too would be left halfway. We have even left over there —because we want to be very brief— the methodological plan, which, together with the publication, is our little white paper that we are building for now. In this case too it is clear that we are all learning as we go, with changes and adaptations.

Of those aspects that we have defined in this Parliament with all the parties that make it up, I would highlight that of doing anticipation in a professional, systematic, and rigorous way, with a methodological plan and with the corresponding expert knowledge. On this point we have had, and continue to have, the expert Lydia Garrido, who is with us today, as she has been from the very first moment. Precisely, from UNESCO, she is part of the most innovative and cutting-edge groups in anticipatory methodology, because this too is permanently changing. This group of legislators rigorously follows its methodology, in addition to doing other things that we are carrying out, taking into account the best international experiences. In this regard, we can mention the permanent exchange with a group of experts. Our guests will be able to see in the publication that last year

we had the contribution of more than twenty-five top-level experts who, from their different perspectives, laid the foundations for this work that we will deepen in the coming years.
Likewise, another requirement that a Special Commission on Futures like this one must meet is the commitment of those of us who make it up to look at the medium and long term. In this space we are committed to setting aside the discussion of the current conjuncture that, of course, we carry on all day long in other settings. The truth is that in the time that has passed since we launched it —specifically since 2021— we have produced a publication whose reading I recommend and which has been of great help to us, not only to the parliamentarians. From different sectors of society they have thanked us for the contributions that were made. Personally, I like to recall that we are already on the third edition, because not only from the local media but also from other parliaments and organizations around the world they have asked us to share this publication, which we have completed with the help of the UNDP. In that regard, I want to mention that this year we are completing “The work of the future, the future of work,” which naturally is one of the main challenges facing today’s societies, obviously with an enormous cross-cutting character with respect to its causes, effects, and contributions.

Very briefly, I wanted to share what we are doing, and I would also like to thank the UNDP very much for this support that has allowed us to do this in a professional, rigorous way, complying with the most advanced methodologies known in the world today.

MS. TEIJEIRA.— I just wanted to underline a few points about collaboration and anticipatory methodology as professional work. I underline this —although I imagine Parliament works this way— because changing the methodology and thinking long term are distinctive matters. Legislator Nane is the vice chair of the Special Commission on Futures.

MS. NANE.— We welcome to this house those who are visiting us for the first time, and we thank those we already know for accompanying them. I was taking some notes while the Chair was speaking, and trying to understand some of the challenges in what is called anticipatory governance. I think we have a great challenge in making what is built able to have sustainable and inclusive development as its pillars, because if this is the house where we all debate, it has to be for everyone, and there we have several issues that cut across us, such as gender, age groups, social conditions, in short, there is a lot to work on there. When we talk about work in that area —in the face of this wave that we sometimes bless and curse, which is the technology that runs through us— we have the challenge of achieving a humanist vision and not letting ourselves be tempted by the bright lights of technology. This great challenge is, above all, for the new generations. When we talk about a challenge for the new generations, it is the obligation of each one of us here that this view of the future be charged with deep generosity, because the future that we build, regulate, or anticipate is not going to be for us but for others. In that sense it is important to have cross-cutting views in that we have to go about building a citizenship of rights, of futures, where we can look at all

the aspects from the standpoint of the exercise of rights and be able to guarantee it from public policy, which has to do, ultimately, with many of the topics we consider here. Lastly, we have to find balances between aspects of sovereignty and cooperation. This is a world that invites us to cooperation and to sustaining pillars of sovereignty that we must channel through governance. This book has many future topics and others on which we can begin working today, and I think that is part of what falls to those of us who have the responsibility of leading the agenda of some commissions, such as the Science, Innovation, and Technology Commission of Parliament. In that setting we have already entered into some of these topics to begin seeking understandings and spaces for debate, but knowing that we must move toward those common grounds without stepping away from the ideological aspects that each one brings with them —and that we represent in the house of democracy—, while building agreements with that generous vision of the future that we have to try to preserve. Thank you very much.

MS. TEIJEIRA.— Thank you very much, Legislator. I hold on to the expression “sustainable and inclusive development,” which refers to the existing gaps, which are not only gender gaps, but there are others as well. The technological and digital revolution has meant an opportunity, above all in our country given what we lived through with regard to education from home during the pandemic and with remote work, but we also have to see what the future of work will be like in that sense. If I may, Mr. Chair, I would like the Under-Secretary-General of the United Nations and Administrator of the UNDP, Mr. Steiner, to take the floor.

MR. STEINER (According to the interpreter’s version).— Mr. Chair, legislators, and colleagues: it is an honor to be seated in this place in the Uruguayan Parliament and to have the opportunity to address you in the Special Commission on Futures, in a country with an economy that has so much to tell us about the future. I do not say these words humbly; rather, I feel fascinated. It is no coincidence that we are in Uruguay today at a time of crisis. Let us remember that we are still emerging from the pandemic and that we quickly entered a global dispute that is affecting people across the whole planet and our economies, generating great uncertainty. A few months ago the UNDP published the new threats of the future. One of the figures that troubled us in that report is that six out of seven people are poor; six out of seven people felt insecure about the future. What a curious time we live in, when we came from a time in which things were clearer. We are the richest, the most educated, wise, and technological in the history of humanity. We are the richest if we consider the world economy. We have more than four hundred thirty trillion dollars in world wealth. There is no planet with this potential, but five out of six of our citizens feel

insecure about the future. If you wanted a proof or evidence of why this happens, here you have the answer as to why a commission for the future is necessary. Allow me also to acknowledge the work of our colleagues who are here. I am accompanied by Mr. Pablo Ruiz, United Nations Resident Coordinator in Uruguay, by my UNDP colleagues, and by the Regional Director, whom you already know. There are representatives here from all the countries of Latin America and the Caribbean. We chose to meet in Uruguay because we believe that the way you are thinking about the future is very relevant to what happens in our own micro world.

You mentioned what we do at UNESCO regarding the idea of an anticipatory methodology for thinking about the future. It is something that our colleagues at UNESCO are also offering to the world. As Peter Drucker said: “The greatest danger in times of turbulence is not the turbulence itself, but to act with yesterday’s logic.” I think that is something very profound, because the biggest transitions in history do not come about thanks to deductions, to informal choices, or by trying to predict the future, but by preparing ourselves as a society for the different possibilities and for change, especially when it is dramatic and breaks the scenario, society, and the financial sector. Nobody likes this disruption. In general, these are the moments when societies fall apart or succeed.
If any of you still doubt that these are difficult times, allow me to remind you where we are today: in a world in which the number of people going hungry has doubled in recent months, a great number of people have been forced to leave their homes, the number of refugees has reached record figures, and the number of conflicts is the highest since the Second World War. We are participants in and witnesses to a war that was not imagined in Eastern Europe; we must even consider the threat of nuclear weapons.

What happened to us? Do you remember the end of the Cold War? Do you remember the peace dividends? Do you remember that at one point it was said that it was the end of history? What happened to us as humanity, and how are we going to move forward? I think we are disintegrating. At this moment we are running the risk of disintegrating as a global family of countries, in a way that has not happened to us in a very long time. I begin with this global perspective because Uruguay is strongly tied to the rest of the world. One of your presidents told me, when he pointed at the port: the only reason we exist is that we have this entrance; we are a hole next to the sea. In that simplicity there is something very incredible. The very existence and the entirety of Uruguay’s history is such that everything happened for a reason. At this moment, when we look outward, we see that they are leaving, that the ships are going to other markets, and those markets brought great economic growth, wealth, and progress to the world.

You know that, thirty-two years ago, the United Nations and the United Nations Development Programme —UNDP— published the first human development report. I mention it not only because it contained another truth, but because it was precisely an attempt to avoid extreme simplification and to avoid using the logic of the past to anticipate the future. The way in which we defined progress as a product of humans was also cutting-edge. GDP and income were synonyms of human development, but of course, in your region of the world, people are rebelling against

this very limited perspective on advancement, and a new way of seeing human capabilities has been introduced. Perhaps it is no coincidence that two economists from the South became the architects of opening our minds, of expanding our lenses. Human capabilities, life expectancy, and also years of education were the first ways in which it was expanded. I am not going to go into this methodology, but it took us some twenty years to introduce —a couple of years ago— an adjusted human development index, because our thinking is quite anthropocentric. Our relationship as humans with the planet has been redefined in the way we look at the future. I hope that in the commission you have already discussed some of these aspects and that you will continue doing so, whether you look at it through the lens of economic success or of differential impact, perhaps of climate change and environmental degradation, or pay attention to sustainability and the cost in agriculture or to the next era of development, because all of these are going to shape the kind of choices you are going to make. There is a statement that says the future cannot be avoided. We could use it in another sense. I would like to use it in such a way that when we think about human development we do so as in the future of a parliamentary commission. It is about choices. There are many possible futures. Some are clearly determined by other developments, but many of those futures reside in the politics itself of what you do and in the choices we make being anticipatory. I congratulate you on this approach, which emulates the one we use at UNESCO. As we said, we cannot predict the future, but we can prepare for it and also shape part of that future through the choices we make, and these sometimes depend on information, on the PCSI, on climate change. This concept was introduced a few years ago and it was a way of helping the world understand, at a time of limited evidence, what the implications of climate change were and how we should understand its profound consequences. Today we are all experts on climate change and we can refer to this topic, but some thirty years ago this was not the case, and when we talked about carbon dioxide we never saw it again after we left school. In less than thirty years we have reached a point where the global economy will change completely because it will leave fossil fuel behind. I have no doubt that it will be so, and you will be in a privileged position because of the changes you have already introduced and will look at that future with confidence. In other parts of the world it is somewhat different. If this oil is produced, how can one embrace this idea of changing. In some way, Russia, through the sanctions, is seeing that it is forcing us to make decisions to change.

Now there is a government that comes from the Green Party, and you will understand the irony, because it had to go back to using these stations, I had to travel to Qatar, the president of the United States had to travel to Saudi Arabia to secure the supply of fuels. It is not so ironic, it is not about this, but about how precise we must be in responding to an emergency like this one, because securing energy for ourselves requires common sense and doing something in the short term. The question is whether we abandon the long-standing tradition in order to solve what is happening now. Markets always move in the short term. Let me tell you, and excuse me because perhaps there are private sectors represented here, that this is in no way meant to diminish the return of companies to the market, but probably, if we think about energy, what is going to happen in thirty years is that most of the decisions will be

shorter. One of the dilemmas, if Parliament looks at this that speaks of government regulating the future, is to allow society to become aware of what must be done so that an economy made up of markets, norms, private investment, and consumer behavior arrives at a single vision of the type of society and economy that is wanted. This is much more than understanding, and there may be a price per kilowatt-hour to pay for electricity or taxes must be raised. It is about designing around choices.

The future of work was spoken about. I live in New York, and twenty-two months ago I was leaving my office, which was abandoned. I am sure you had the same phenomenon: discussing the future of work, the kind of offices you would think about for the future. This is a somewhat science-fiction discussion, because you would think that we would never need offices the way we used them before. A third of the UNDP thought it was not going to come back; we had a third working in the office and two thirds working outside. So the real estate market collapsed in New York, but now we are in June 2022 and the conversation has changed again. It is as if covid had not existed, and people began to say: “No, no, people are going to go back to the offices and, in fact, they are going to have office life again.” This shows us that in a very short time something seems very clear, but then it changes after twelve or fifteen months. So, a country like Uruguay, which is so dependent on so many variables of what happens in the world, how does it prepare as a society, as an economy, in the short term, for something that is very disruptive and for this insecurity? Second: how does it build an economy that essentially reflects the society that Uruguay wants, if many of the decisions will be made next year, perhaps, or in the next five years? I am not going to take more time giving you examples about the variables. You are going to do a very deep analysis; you are looking for evidence and, above all, to build a public discourse about what comes next.

I think we must find a way for this conversation to be accessible to the public. You can bring in experts on the atmosphere or on the future of work, you can bring in economists who present you with a great deal of information, research, and evidence, but at the end of the day your commission must be empowering every Uruguayan citizen and not just a group of experts.

How are we going to narrow this gap? I want to leave you with two ideas that may not be relevant, but could be a point of reference. Sometimes complexity can be very discouraging. We are living through very complex times; everyone who believes or pretends to believe that things are clear is a little naive or mistaken, because the choices are more complex.

Imagine for a moment that today you are legislators in Parliament and that you want to design projects and work with other countries when in only eight years the world will be in a position to control climate change. Try to imagine that. It is likely that in a decade there will be no point of return; we cannot turn around, we cannot go back to green gases. So, in 2030 things are going to be even worse; perhaps worse scenarios will occur. We have lost those choices. For those who have children or think about other generations, what will it mean to have a son or daughter who in 2030 is going to look at us and ask us what we were doing? Because we knew enough to act, but perhaps we were not

sufficiently convinced. This complexity cannot be an excuse for this to be a topic for experts.
I am also looking at the press, because the media are a very important part. We must empower citizens to be part of this conversation. I suggest you use two lenses to work. I am convinced that the two fundamental variables of today, of this era, of this age, are two choices that we must make. One has to do with inequity. How much inequity can be justified in the name of progress, development, or economic growth? The debate of our days has changed a lot. Inequity can occur between the city and the countryside, it can occur between this generation and the next, it can occur between men and women. There are many ways in which our society is breaking apart because of these inequities, and we have justified them with the argument that this is the cost of development. Did you know that more than seven million people die prematurely every year in the world from pollution inside and outside buildings? Frankly, as we know, it is not an unavoidable cost; it is a choice. That is the cost of development: seven million people. So, inequity has to be part of the essential narrative of the Special Commission on Futures, because decisions will be made on that basis and the world will be judged on that basis. The second variable is sustainability, but not only in environmental terms. I use this word because we have been incorporating it since the sixties and seventies, when we spoke of the social, economic, and environmental pillars at the Earth Summit. If we cannot manage these issues together in a single equation, we will not succeed. So, sustainable development is a paradigm and it has to do with the connection among the economy, the social, and the environment. I close my presentation by suggesting to the commission the possibility of analyzing the sustainable development goals, not as a formula that gives answers, but as a format that obliges us to see how we relate things. The genesis of sustainable development was not a cataclysm. The vision of the Millennium Goals represents the world's attempt to see what the great risks are to our collective survival, especially those that require us to work together as nations and as humanity. If we look at these goals, we will be able to recognize that we agreed on the seventeen ways that describe the greatest risks to our future. So, to find the solutions, we must address them jointly, as a global family of nations.

Therefore, as the Special Commission on Futures, I suggest that you analyze inequity and sustainability, which are the two variables whose study cannot be missing. Perhaps a country like Uruguay, which has relations with the rest of the nations of the world, can find a way to express its choices with respect to the Millennium Goals. Through that window and with the heart, perhaps Uruguayan society —all together and in an encounter with its own realities— can begin to appreciate the complexity of these issues. The Millennium Goals are not the answer, but they are a way of looking at things every day.

I hope I have not repeated too much of what you have already considered here; my intention was to contribute clarity to the direction of the work that is being done in the commission,

in Parliament, and in Uruguay. As a member of the United Nations family, it is a privilege to be here today.
Thank you very much.
(Applause).

MS. TEIJEIRA.— I am not going to summarize everything Mr. Steiner said. There are many interesting concepts, but I am only going to mention one that had not appeared before, which has to do with sustainable development that takes care of the inequalities that are generated today and those that are being generated for various reasons, because of that uncertainty. We must not only have the person at the center, but also the conviction that we live on a planet that we must care for and respect. Perhaps that is where the environmental dimension comes in, which was touched on in some way, because this is the world we inhabit and that we have to take care of in order to keep moving forward. Now, if the Chair agrees, I would give the floor to Legislator Juan Martín Rodríguez, who holds the Secretariat of Parlatino and who has also taken this topic there.

MR. RODRÍGUEZ.— Thank you very much, Chair, and thank you very much, Vice Chair of the Special Commission on Futures of the General Assembly, Representative Rodrigo Goñi and Senator Silvia Nane.
I want to join in the welcome to Achim Steiner and to the other members of this large delegation of the United Nations, of the UNDP. Many have been regular visitors to this house, but that makes their visit today no less important, accompanying the members of this very numerous and important delegation. Our participation in today's session is due to a condition, which is that since last February we have had the pride and honor of representing our Parliament, the Uruguayan Parliament, on the executive board of the Latin American and Caribbean Parliament —Parlatino— as secretary general. Perhaps the assumption of that responsibility is the result of the generational change in the leadership of this regional body. In 2024 the Latin American Parliament will be completing sixty years of life; although that was the moment when it was established, in 1987 an institutional treaty was signed among the twenty-three countries that make up this continent of Latin America. In that regard, I want to say that with the other members of this executive board, in particular with its president, the Argentine senator Silvia Giacoppo —whom chance has it is, at this very moment, in Chile participating in a meeting with the chair of the Challenges of the Future Commission of the Chilean Senate—, we began to talk about the importance of tackling, among the matters that were going to be addressed in this two-year term, the prioritization, the weighting, and, above all, the collaboration among the different parliaments, in particular with those futures commissions or commissions on the challenges of the future that have already been constituted. The Challenges of the Future Commission of the Chilean Senate was a pioneer on our continent, even though Brazil had already begun to carry out actions along these lines in 2011. The reality is that the first futures commission —or under whatever name

it has been identified on our continent— was the Chilean one, which was created around April 2012. Circumstances connected with the Congress of the Future were taken advantage of, in connection with the bicentennial that the sister Republic of Chile was celebrating, and so it was that we appealed to hold, a couple of months ago —toward the end of April—, a virtual meeting with its chair, Senator Francisco Chahuán, to exchange impressions. Of course, we have had the opportunity —not as members, but as guests on more than one occasion, thanks to the kindness of the authorities of this commission and its members— to take part in several sessions, and we talked about a presentation in which we had taken part days before with authorities and representatives of Finland's Ministry of Education and Culture, who had come here, to Uruguay. In that regard, we understood it was necessary to encourage —not only at the level of the countries that already have commissions in place, but also those that have not yet done so— the formation of a space for promoting national agreements, development models oriented toward growth, the redistribution of wealth, and other major objectives in which the intensive use of science and technology are central. That is why generating trust among the members of the political parties becomes central. As for the first central topic, which was "The work of the future and the future of work," both Chile and Uruguay have taken on various topics over the course of this decade. All are very important, and some of them are also part of the topics being addressed collaterally here, such as artificial intelligence, neurorights, aerospace policy, astronomical research, study of the seabed, green hydrogen, green mining, preventive health, as well as other topics of similar importance. The issue of cybersecurity and cybercrime has also been among the matters that they have addressed in Chile in the Challenges of the Future Commission. A recommendation made to us by Senator Chahuán had to do, precisely, with the commission's attitude of having used cutting-edge scientific and technological resources, including mathematical models, to project its action at the national level effectively and efficiently and to generate the appropriate consensus. In that regard, carrying out promotional and informational activities, with a strong link to the media, and signing cooperation agreements with scientific entities, media outlets, and organizations connected to academia and the like, have been central to that development. Being at the doorstep of the fifth and sixth industrial revolutions —related to the metaverse and the inhabiting of spaces other than planet Earth—, cooperation and the formation of these spaces become fundamental.

At the end of April we had this meeting, and here we are celebrating this very important visit to our commission, as well as the visit that the president of Parlatino is making to the Challenges of the Future Commission of the Chilean Senate. In addition, next week the president, Senator Giacoppo, will be here, and as part of her agenda —in parallel with the one she is already carrying out— there will be a meeting with the authorities of the Special Commission on Futures, because precisely the purpose of Parlatino is that, toward the end of next week, at the bimonthly meeting of the executive board, a parliamentary forum for the whole continent be formed to address the challenges of the future. In this,

the role of those parliaments in which the respective commissions have already been constituted becomes central. Of course Chile and Brazil will be very important, but the role Uruguay is beginning to play in this new wave of commission formation also becomes very important. In fact, in these months one was formed in Paraguay and Argentina is debating its formation, and Uruguay had a lot to do with that.

We are convinced that reality, as Achim Steiner also said, imposes on us that we generate models of cooperation. Perhaps we will leave behind centuries of struggle, of competition, and move precisely to those models of cooperation. Moreover, cooperation is not only among political actors; it has to take place among political actors, scientists, academics, productive sectors, and social organizations. That is why we are convinced that we have to dare to think about the future. We have to dare to think about the future. Thank you very much.

THE CHAIR.— In closing this meeting I want to thank you very much once again for your appearance and the UNDP's support for this task which, as Legislator Rodríguez said very well, will be Latin American, continental. It gives me enormous joy and satisfaction to hear here the language that, in some way, one begins to use to talk about the future, but not about a magical future, of prediction, but about a future in which we see some trends, some emerging factors, being anticipated, within the complexity and the uncertainty, that allow us to see whether we can influence this present and build more options, because that is what it is about.

We must not lose sight of our bearings, as my colleagues have affirmed. Science and technology seduce us and, naturally, we always tend to look at how we can adapt more quickly to those technological and scientific changes, but we can never forget to preserve what is human. That is the great challenge: how to preserve what is human, which has to do with sustainability with the new generations in mind, with social justice, with equality, and, above all, with inclusion, because if one does not generate more options, naturally the excluded of every kind are going to be more and more. So we have an exciting challenge.
I believe that today the methodologies really do allow us to influence the present in order to have more options in the future, with rigorous work and with everyone's collaboration. We trust that this work will be able to generate more options for those who today are appearing as excluded and that it will bear fruit in a more sustainable and humane world.

Thank you all very much for being here.
(Applause).
—The meeting is adjourned.
(The time is 19:31).

Montevideo, Uruguay. Legislative Branch.