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The OECD has been taking on the subject in a very prominent manner, with many high-profile policy forums. Mari, we are very curious to hear the OECD's numbers and statistics on AI and the future of work.

Mari KIVINIEMI

Thank you very much for the invitation, I am happy to be here. It is my fourth time participating in the World Policy Conference and congratulations to Thierry on the 10th anniversary of this great event. I am happy to share the OECD's thoughts on these themes of Artificial Intelligence, technology, and the future of work. They are very high on the OECD's agenda.

Mr Ahmed has set the scene in an excellent way so that there is not much to be added, but I will go into a little bit more detail. Just to give you some concrete examples of how rapidly Artificial Intelligence has penetrated not only into our homes but also into our workplaces. If you look at the number of Artificial Intelligence related inventions patented in the five top IP offices in the last five years, the number has nearly doubled. In addition, when we look at the funding of Artificial Intelligence start-ups, there were 160 deals in 2012 and 658 in 2016. There has been really rapid change in a very short period. We all see that Artificial Intelligence can make better decisions, detect problems earlier and generally reduce costs in several areas fundamental to societal wellbeing. Let us take the concrete example of health. Deep learning algorithms, combined with inputs from human pathologists, have lowered the error rate for breast cancer detection to 0.5%, compared to 3.5% for pathologists alone and 7.5% for machines alone. That is a huge improvement in breast cancer detection.

Of course, Artificial Intelligence also creates challenges and last week we organised a conference at the OECD with the title, 'Intelligent machines; smart policies'. The theme of the future of work was very high on the agenda in those discussions and people tend to be very worried about what will happen in the workplace and what their future will be. At the OECD, we think that this kind of fears can be a little bit exaggerated, and I personally think that we should rather be optimistic when we think about the future of Artificial Intelligence and work. Mankind has been able to survive the earlier technological and industrial revolutions, so I am sure that we are going to be able to survive this in a good way.

To give you some reasons for this belief that the fears can be exaggerated, first, there is a difference between what can be automated technically, and what will actually be automated. Social attitudes matter in deciding where the use of robots is acceptable, and it is more acceptable in space technology than in healthcare. Another reason is that the changes will be to individual tasks, not entire jobs. The nature and content of most jobs will not be totally automated, the changes will be made to individual tasks. We estimate that there will be quite a big difference depending on the country, but on average we estimate that 14% of jobs have a high risk that most tasks will be automated. Another 32% of jobs are likely to see profound changes in task composition.

The third reason is that technology not only destroys jobs, it creates new ones. We can all see that there are now many new jobs that we could never have envisaged, for example, who would ever have thought 20 years ago that blogger would be a profession. However, governments must be ready to face these changes and we face the risk of increasing inequality in labour markets and beyond through the changes that the digital transformation is bringing to the organisation of work and the way that labour markets function. I want to underline that governments have to be aware, to help people navigate the digital transformation. Employment rates have risen in most advanced countries in recent years, so the future of work may not be as bad as some people fear.

Then, I come to the point of what governments should do. First, we need to adapt our skill policies. The skills competition for jobs is changing and in almost all advanced countries we have seen a decline in the proportion of



middle-skilled jobs and an increase in the proportion of both low and high-skill jobs. To face the phenomenon, skills competition is of utmost importance and governments must improve the education system. When it comes to the basics of elementary education, people need a mix of strong cognitive and soft skills, to complement their ICT skills. In addition, we must look at the possibilities for lifelong learning for adults. That system has to be improved in all countries.

After skills policies, the second policy is active labour market policies, so that we can provide workers who lose out in this transition process with the necessary income support, but also the means to find a new high-quality job as quickly as possible.

Skills, active labour market policies, and third is social security policies. We also heard that there are many possibilities for that, but because the form of work is changing, social security systems also must change. Thank you very much for the opportunity to share the OECD's views on these matters.

Ali ASLAN

Thank you, Mari, for providing the facts and figures.