Ren Zhengfei's Media Interview After the Opening Ceremony of the Intelligent Mining Innovation Lab in Taiyuan

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Ren: Before I take your questions, I would like to make some opening remarks. Our previous generations of communications networks aimed to connect numerous homes and several billion people. But in the 5G era, connecting businesses is the main goal. There are many industries that we are not too familiar with, like airports, ports, coal mining, iron and steel production, automotive manufacturing, and aircraft manufacturing. That's why we built joint labs to learn more about the needs of these industries.

The Intelligent Mining Innovation Lab in Shanxi will provide better services for mines with 5G. The lab is staffed by 220 experts, and 53 of those are from Huawei. Most of these Huawei experts specialize in electronics technology. There are also more than 150 coal mining experts from Shanxi who have an extensive knowledge of the industry. We have set up this joint lab and adopted a co-leadership mechanism, where leaders from the coal industry have a greater say on mining aspects, while Huawei leaders have a greater say on the electronics side of things.

01 Zhao Donghui, Xinhua News Agency: You were at the opening ceremony of the lab earlier this morning. Is Huawei trying to expand its core business to achieve diversification, and can it create unique advantages in every industry it operates in? What do you think would be an ideal working environment for coal mine workers in the future?

Ren: First and foremost, we will not expand our core business. The basic platform we provide for coal mining is the same as the ones we provide for iron and steel plants, ports, and airports. The 5G applications for different industries are different, but most of the technologies are the same. So our main goal is to increase the adoption of electronic, software, and computing systems in different industries. Powered by insights into how coal mines work, our electronic and software systems will be able to provide great applications and services for mines. And if we can provide excellent services for coal mines, just like Microsoft is providing information services to support aircraft engines, we will have created an outstanding service module. Microsoft is not going to start making aircraft engines, and we are not going to start mining.

Our role is to help the coal industry reduce staffing and increase unmanned operations, to make their work safer and more efficient. We will do this by helping reduce staffing in fully mechanized and intelligent mining scenarios by 60% and the number of workers going down to mining pits each shift by 10% to 20%. The coal industry welcomes our electronic systems. By supporting this industry, we can grow our business and support more efficient and safer production in mines. We can also enable coal mine workers to "wear suits and ties" at work, and propel the mining machinery industry in Shanxi forward.

02 Dan Martin, *AFP*: Mr. Ren, thank you for meeting with us. The mining industry sounds very interesting, and we look forward to hearing more about

that. But I want to just pull back a little bit. It's been a year since you met with foreign media as far as I know. A lot has happened. There's been some news recently about the Huawei phone shipments, and some may not be the greatest news out of Europe in terms of your 5G expansion. I wonder if you can tell us, you know before, say, a year ago, you were quite confident about Huawei's ability to survive these challenges. Are you still that confident? Are you less so? And can you tell us why?

Ren: I am even more confident about Huawei's survival than I was, because we have more ways to overcome those challenges. Our sales revenue and profits in 2020 were higher than last year's. If you have time, you should visit the Port of Ningbo, Shenzhen Airport, Dubai International Airport, and the automobile factories in Germany that use our 5G services to see for yourself how we are helping them advance. We are still winning trust from a large number of customers.

We have also kicked-off a program called *Nanniwan*. People outside China might not recognize the reference, but it is basically related to the concept of self-reliance in production. This program is intended to help us make breakthroughs in coal mining, iron and steel, and music, as well as in product categories like TVs, computers, and tablets.

Our shipments of high-end phones have declined because of lack of chip supply. But we support the progress made by Apple's iPhone 12. The iPhone 12 has been able to achieve download speeds of 1.82 Gbps, making it the best in the world. Many high-end device users in Europe use iPhones, and the way those phones operate on our networks in Europe actually is a sign we are also doing well. We helped build the best 5G networks in many cities around the world: Berlin, Munich, Madrid, Zurich, Geneva, Amsterdam, Vienna, Barcelona, Seoul, Bangkok, Hong Kong, Riyadh… Our networks in Europe top global network performance tests. The fact high-end users can use the iPhone 12 to its fullest effect on our 5G networks in Europe is a testament to the quality of our networks. This is helping balance opinions towards Huawei in Europe.

When it comes to 5G applications, most ICT companies didn't think of mining as a field where they can make market breakthroughs, but we did. China has around 5,300 coal mines and 2,700 ore mines. If we can serve these 8,000+ mines well, we could expand our services to mines outside China. Again, I invite you to visit the Port of Tianjin, where we've helped roll out nearly unmanned lading and transport. I hope we will be able to achieve similar success in the mining industry. Unmanned mining could be of great significance to mines in the arctic regions in Canada and Russia. Very few people are willing to live on those tundras because of the harsh environment. This makes resource utilization there very inefficient. The whole world would benefit if we could utilize those resources through unmanned mining. Why did we choose to start in Shanxi? Because the Shanxi government has been very proactive in this regard. If we succeed in Shanxi, our experience can be replicated across the world.

So yes. We can still survive even without relying on phone sales.

03 Arjun Kharpal, *CNBC*: Mr. Ren, thanks so much for joining us today. It's very nice to see you again. I wanted to ask, since you spoke to us last time, we've seen the change in presidency over in the US, and President Biden has said that he will continue to take a tough stance even on China, but perhaps be a bit more cooperative. How are you planning for the Biden Administration internally? Are

you planning for changes in the approach to Huawei? And do you think he will roll back any of the sanctions so far that the previous administration has put on Huawei?

Ren: First, trade benefits both sides. Allowing US companies to supply goods to Chinese customers is conducive to their own financial performance. If Huawei's production capacity expanded, that would mean US companies could sell more. It's a win-win situation. I believe the new administration will weigh and balance these interests as they consider their policies. We still hope to be able to buy a lot of US components, parts, and machinery so that US companies can also develop with the Chinese economy.

In the mid-18th century, the UK adopted a closed-off policy towards the US, which pushed the US to rise as the most powerful country in the world. Today, the US is blocking us. Will this lead to an unexpected outcome? As a business, we don't have the energy to get involved in a political whirlpool. Our heads are buried in making our own products. Because our products are high quality, some customers around the world still stick with us and we managed to survive this difficult 2020. We'll continue serving these customers well by creating more value for them. We want them to have lasting faith in us, and we hope that they won't sway because of political pressure. I hope the new US administration will come up with more open policies that are in the interests of US companies and the US economy as a whole.

Some US politicians have concerns over the potential impact 5G may have on a global scale. As I once pledged, we would transfer all of our 5G technologies, not just licensing production to others. As long as the US asks for it, we would transfer everything from the source programs and source code to all the hardware design secrets and know-how, and even the chip design. I meant what I said, but no US company has come forward. I hope you can help us relay this message to US companies. If they want to talk, we'd be happy to talk.

04 David Kivton, Reuters: Thank you for meeting with us. Honor has had success in regaining access to chips since being spun off. Is Huawei considering or has it considered spinning off any of its other business units or lines?

Ren: The spin-off of the Honor business was to help upstream suppliers and downstream channel partners. If Honor could not procure parts and components from upstream suppliers, suppliers worldwide would suffer. If no products could be supplied to downstream distribution channels, those channels would dry up. That would put many jobs at stake. The spin-off of Honor was a forced decision made in response to the changes in the external environment.

Huawei does not own a single share of the new Honor entity. The more production capacity they have, the less room there'll be for Huawei's smartphone business. But we must understand the needs of our suppliers, channel partners, and users. We should act in their interests, not just for our own sake. We have to play it by ear.

05 Liu Ruiqiang, *Shan Xi Ri Bao*: Hi Mr. Ren, I'm a journalist from *Shanxi Daily*. I would like to thank Huawei for supporting Shanxi's development. Could you please tell us how the Intelligent Mining Innovation Lab fits into Huawei's global presence? What role will the lab play, what changes will it bring to Shanxi, and what is its vision? How does Huawei expect to grow its business in Shanxi in

the future? Thank you!

Ren: We have more than 100 research centers and joint labs around the world, most of which specialize in areas like mathematics, physics, chemistry, biology, and aesthetics. A small number of them are applied research labs we built with our customers. For example, we have built joint labs with telcos where we study the needs of telecom customers. We are now going beyond telecoms with this joint lab for coal mining and other joint labs for transportation applications for areas like airports and seaports. These labs are applied research labs.

The Intelligent Mining Innovation Lab will mainly be used to support operations in Shanxi's several thousand coal mines and other types of mines. In the future, autonomous driving will help us achieve automated mining in open-pit mines. Shanxi is doing a good job in coal mining, with the vast majority of its mines already using mechanical equipment. There are even a few automated mines already. Applying ICT will help them achieve intelligent mining. For example, there are already devices to effectively prevent gas explosions in Shanxi's mines, but they need four cables in total: two power cables and two signal cables. Combined with our technology, gas detectors don't need any cables anymore. They can transmit data using a wireless network. Powered by batteries, they can also operate on currents lower than 6mA, which meets safety current standards.

This means the gas detectors can be installed anywhere in the pits. Mining machines are traditionally connected to wired detectors. When you use wired detectors, moving of mining machines forward is slow because they constantly have to rewire everything. By connecting the mining machines to gas detectors using wireless networks, we can increase productivity. The batteries of these gas detectors are small and low-powered, and only need to be replaced every 12 to 18 months. We are working with Shanxi's coal mines on this explosion prevention system. This system could eventually help the rest of the world.

06 Zhao Donghui, Xinhua News Agency: In coal mining, Huawei has adopted an operating model called corps. Will you expand this model to other industries like airports, ports, and iron and steel? And does this mean Huawei is expanding beyond its core business? I also want to ask you a personal question. You've been working hard for a long time now. When do you plan on retiring?

Ren: This model is not limited to the coal industry. Let me explain what a corps is. This is a concept we have borrowed from Google. Basically, a corps brings together scientists doing basic research, technology experts, product experts, engineering experts, sales experts, and delivery and service experts to form a lean team. This shortens the time-to-market of new products. This model also allows us to approach our various businesses in a more granular way, and everything is much more efficient.

There have already been large-scale deployments in ports, but coal mining is the first industry where we applied this corps model. You can visit the airports in Shenzhen, Shanghai, and Dubai, where we have helped greatly increase the dispatching efficiency.

Let me give you an example of what we've done. During storms or other types of disruptions, airports have to reallocate boarding bridges for flights. This generally takes four hours of manual work. We have helped cut the time to mere seconds. Plus, we have helped reduce the time a flight spends taxiing by 2 minutes. These are the

improvements we have made.

You can also go to Hunan Valin Xiangtan Iron & Steel Plant for a visit. They've already achieved unmanned operation of furnaces and rolling mills. At this plant, the smelting and rolling of steel are done by workers in the control room wearing suits and ties. When AR and VR technologies are adopted, they will essentially be able to see the chemicals in a furnace through glasses, so there'll be no need to take those materials out of the furnace for testing. And steel production will also become much more efficient and the quality of alloy will increase. So unmanned operations have been realized in some iron and steel plants, and it is easier to implement there than in coal mining.

It's the same for ports. We have helped the Port of Ningbo and Port of Shekou in Shenzhen automate most of their operations. Whether we are going to extend our corps model to these industries depends on whether the demand is there. For example, in airports and ports, it's essentially a mathematical issue, which is fairly easy to solve. But in coal mining, chemistry and physics are involved. Those are new issues for our company.

We've also adopted a corps model for music services. Many people are not happy about the quality of the music they listen to. Why is that? Music covers a very wide range of frequencies. If we go to a concert hall, we get to enjoy the whole range, from high to low. However, when we listen to music through electronic devices, the bandwidth is not sufficient, and the music has to be compressed into small data packets before transmission. This means the extremely low and high frequencies will be removed, so the sound quality of the music suffers. Ultra-broadband technology makes it possible to communicate music with all of the subtleties intact and give listeners a high fidelity experience.

In our earphone design, we actually make use of the bones around the ears – and not just the eardrum itself – to listen to music. This achievement is thanks to our music corps, which consists of many of our scientists working on acoustics and other areas, and has made numerous innovations.

Apple is still the best when it comes to music services. They generate an annual revenue of 20 billion US dollars from earphones. We estimate that Huawei's annual revenue from earphones will not be as high as Apple, but will still increase to 10 billion US dollars, and our net profit will be over 3 billion US dollars. But Apple is number one at the moment. It is really a great company.

In a nutshell, whether we adopt the corps operating model for a particular business largely depends on whether scientists are needed in the frontline operating team. If scientists are needed, we will adopt the corps model. Otherwise, we will retain the general matrix models we've been using.

07 Zhao Donghui, Xinhua News Agency: When do you plan on retiring?

Ren: The truth is, the question for me is not when I will retire, but what I would actually do in retirement. My wife told me that I can just drink tea every day. I can have tea in the morning, but if I have tea in the afternoon, I can't fall asleep at night. So I don't know how I would entertain myself after retirement, and I'd rather continue working at Huawei. Maybe you can help me find something I could do. I really don't have any hobbies to keep me occupied.

08 Celia Chen, *SCMP*: Huawei's management said in early 2020 that the goal was to "survive". Now, Huawei is still doing quite well. So what is your goal for 2021? What does Huawei need most in terms of development over the next three years? If you had to choose between having many scientists at your disposal for three years, or being removed from the Entity List immediately, which would you choose?

Ren: I think it's very unlikely that the US will remove us from the Entity List. I won't say it's impossible, but it's extremely unlikely. We basically aren't considering it a possibility. We have to remain committed to producing good products and solutions that we can produce to win customer trust. We welcome scientists from around the world and can support top minds. Right now, we just want to work harder and keep looking for new opportunities for survival. Coal mines just offer a good opportunity. There are tons of coal mines around the world, and that can create tens of billions of dollars. Just imagine how many people we can support with that money.

09 Arjun Kharpal, *CNBC*: Mr. Ren, can I just ask you about the chips? At the moment, you mentioned earlier, obviously, the smartphone business has been cut off from chips. So what are you doing in that area? Are you investing in or acquiring any chip companies right now? And given you've been cut off from the supply from TSMC, what's the alternative? Is it MediaTek, for your high-end smartphone business? And just linked to that, are you going to stay in the smartphone business? Or are you going to sell off the high-end business as well, like you did with Honor?

Ren: First, the US government really needs to take a look at its own chip industry. The US considers chips important, so Europe will consider them important and Japan will as well. The world is going to see a surplus of chips, like what happened with real estate. We won't invest in making chips. Turning sand to silicon isn't our thing. We are good at math, and we rely on globalization. We won't give up this ideal of globalization and will continue doing business this way, no matter how harsh the sanctions or blocks are. One day, when the market is flooded with chips, I bet others will be begging us to buy them.

Second, don't think devices are only mobile phones. Everything that connects people or things are devices. That includes things like laser radar, ultrasonic radar, and Doppler radar for self-driving vehicles, as well as household gas meters, water meters, TVs, and security systems. Mobile phones are only one part of the device category. So Huawei may transfer our 5G technologies to others in the future, but will never sell our device business.

10 David Kivton, Reuters: So we understand that the team representing your daughter Meng Wanzhou has been in touch with US prosecutors. Are you optimistic that she might be able to return this year? And what is her future in the company?

Ren: For Meng Wanzhou's case, we are still continuing with legal proceedings in Canada.

11 Liu Ruiqiang, *Shan Xi Ri Bao*: Mr. Ren, Shanxi is piloting a comprehensive energy reform program, which will require a large amount of technical talent. Does Huawei have any plans to help with Shanxi's talent development program?

Ren: We have not yet considered additional investment and development plans in Shanxi.

12 Celia Chen, *SCMP*: As Huawei is adjusting its business portfolio, will there be

any changes to your management team? There were some media reports recently saying Eric Xu would leave Huawei. Is this a rumor? Will Huawei change the structure of its management team as it adjusts its business portfolio?

Ren: There will be no major structural changes to Huawei's management team. We will adjust a few people's positions as our business operating model changes. For example, the Chairman of our Coal Mine Corps is the former president of our Latin America Region. This shows our commitment to the development of the coal industry in Shanxi.

Talking of Eric Xu leaving Huawei is a rumor. We have published a media statement to clarify that.

13 David Kirton, Reuters: In terms of the revenue, the company is inevitably losing from the handset business. Do you see this new opportunity is being able to offset that? And if so, how soon?

Ren: I think more or less within this year.

14 Celia Chen, *SCMP*: Your younger daughter Annabel Yao has chosen a totally different career path from Meng Wanzhou. As a father, which choice makes you happier?

Ren: Every child has their own interests. Parents cannot make choices for them. They can choose whatever path they like. I used to know very little about show business. Since she started working in this industry, I have seen how hard it is to be an artist. But she has never regretted her decision. So we, as parents, don't want to intervene.

15 David Kirton, Reuters: How come you've chosen to announce this project just before the Chinese New Year?

Ren: This is not a deliberate choice. We just wanted to fit in with the calendar of the Shanxi provincial government. It has been a long time since I last met with the media, so I wanted to take this opportunity to meet a few friends from the media. The timing of this is not so calculated.

16 Zhao Donghui, Xinhua News Agency: You seem to be avoiding the topic of diversification.

Ren: Huawei will never pursue diversification. We are just offering a platform, providing soil where all kinds of crops can grow. The platform we provide for the coal industry is essentially the same as the one we provide for the telecommunications and transportation industries. It's just that coal mines don't know how to use this platform, so we help them more. We are selling more platforms, but that's not diversification.

17 Celia Chen, *SCMP*: Thank you for meeting with us. If US President Biden called you, what would you say to him?

Ren: I would welcome that, but he hasn't called. You have my email address and telephone number.

Which topic do you want to talk about most?

Ren: I would talk with him about common development. Both the US and China need to develop their economies, as this is good for our society and financial balance.

Everyone needs this. As humanity keeps making progress, no company can develop a globalized industry alone. It requires concerted efforts around the world.

Thank you! See you next time.