

IN HIS OWN WORDS

DIALOGUES WITH REN

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VOLUME VII



Meet challenges head on and rapidly roll out 5G at Huoshenshan Hospital

At the beginning of the year, the novel coronavirus (COVID-19) outbreak hit Wuhan, positioning the city at the center of a storm. Given these special circumstances, it was essential for communications networks to run stably.

On January 23, Huawei received a request from the Wuhan epidemic prevention and control center to launch 5G networks at Huoshenshan Hospital. Upon receiving the request, Huawei and local carriers immediately rushed to assist the emergency hospital. Over 50 engineers were assigned to different tasks, including site surveys, rollout plans, and moving equipment and materials. Two days after their arrival, they got the 5G base stations up and running at the hospital. In addition to 5G rollout, the team also supported local carriers with 4G capacity expansion and 3G base station optimization. As a result, all networks around the hospital are now configured with the largest network capacity, effectively serving the communications needs of the hospital.

The Huawei team led by example and displayed the essential role a communications company plays in critical moments. They always hold fast at their posts and stick with their customers, ensuring the stable operations of networks.



Promote digital inclusion and bring the benefits of technology to all

Visual impairment among children is a challenging issue in pediatrics, particularly because we cannot communicate with very young children. This leaves many children undiagnosed for too long, causing them to miss the best opportunity for treatment and negatively impacting the rest of their lives.

Huawei has partnered with a Spanish medical research institute to develop a new medical device that can diagnose early signs of visual impairment in children. The device monitors and tracks the movement and responsiveness of each eye while the patient is looking at stimuli designed to test visual function. The data collected is then sent to a Huawei smartphone, which uses AI and machine learning capabilities to analyze and diagnose any signs of visual impairment. This technology is called TrackAI.

Assisted by digital technology, trained parents can detect visual impairment in children as quickly, easily, and effectively as doctors. This will hugely benefit the 19 million children with visual impairment around the world.



Heroes are forged, not born.

During World War II, the famous IL-2 kept flying even after being riddled by anti-aircraft shells and machine-gun fire from other planes. Although badly damaged, it finally made its way back home.

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Ren Zhengfei's Interview with Kyodo News

October 16, 2019 Shenzhen, China

Ren: Thank you for coming. Before we start, I would like to express my sincere sympathy for those affected by Typhoon Hagibis in Japan. I would also like to congratulate Akira Yoshino on winning the Nobel Prize. He has remained dedicated to his study for 38 years. To Huawei, this kind of spirit is worth learning. If scientists in China could concentrate their efforts on single projects and work relentlessly on them for 38 years straight, we would have an even more prosperous country.

Japan is a country that has left a very good impression on me. My family and I all have great admiration for your country. I think there are many philosophies we can learn from the Japanese people. I am so glad to have an interview with you today. Please feel free to speak up about any questions you might have. Challenging questions are welcome too.

01 Tomoji Tatsumi, China Bureau Chief, *Kyodo News*: Thank you for your time, Mr. Ren. The first time I met a Huawei employee was in Shanghai, 2012. At that time, I was still in charge of our Shanghai Bureau. I was attending a launch event there hosted by Huawei's Shanghai Research Center. Before then, I knew nothing about Huawei. That was the first time I realized China had such a large private company. Since then, I have had the honor to keep in contact

with a number of Huawei employees. If I'm not wrong, the media affairs director at Huawei HQ at the time was Scott, an American. Huawei happened to develop a mobile phone prototype at the time, and he cheerfully introduced the phone to us. Ever since then, I have paid much attention to Huawei and have always wanted an opportunity to interview you. Today, we can see that Huawei phones are very popular around the world. Also, my dream of interviewing you has come true. So this is a great pleasure and an honor. Let me officially say that it is a pleasure to meet you.

Ren: I am very glad to hear that you previously visited our Shanghai Research Center. We actually entered the mobile phone sector by accident. When we were preparing to sell 3G systems to the world, we realized it was impossible without 3G phones. So we tried to make such phones ourselves.

Can you guess how big the earliest 3G mobile phones were? You may well know the Toyota Coaster. Well, each Coaster car could only carry one phone. That is to say, the phone's components could fill up the entire car. That car drove the phone around Shanghai to test our base stations. Following that, it took us more than 10 years to shrink this "Coaster phone", step by step, to what you see today. In the early phases when we expanded into the mobile phone sector, we had more failures than

successes and experienced twists and turns. Today, we have started to see small successes in this sector, but no big ones yet. So we need to work even harder.

Our Japan Research Center has a solid partnership with Japanese firms. Japanese people are best in the world at making many items very exquisite. For example, mobile phones in your country are so compact. This is one of your key strengths. So we will invest heavily in Japan and work even more closely with Japanese firms.

02

Tomoji Tatsumi: I want to ask a question about the trade war between China and the US. We are not clear about the outcomes of this trade war. Some people are saying that China and the US are now in a new Cold War. What's your view on this? Do you think they are already there? If not, do you think it's possible in the future?

Ren: I don't think China and the US will enter a new Cold War. The US is becoming increasingly closed off from the rest of the world while China is becoming increasingly open. For every step the US takes to close itself off, China takes one towards openness. A Cold War will only happen when both countries become closed off. But since China is continuing to open itself up, I don't think there will be a new Cold War.

The US cannot afford to abandon the Chinese

market because without this market, its economy will be affected. Take cars for example. China now has 400 million cars on the road. If a car is replaced on average every 10 years, China will need around 40 to 50 million new cars every year. Last year, China set a schedule for opening up its automotive industry over the next five years. Foreign carmakers will be able to set up wholly foreign-owned subsidiaries in China without having to transfer their technologies to China. In this five-year period, tariffs for cars will also drop significantly.

Chinese people love European and Japanese cars. European cars are known for their luxury and Japanese cars are known for their quality. American cars are generally spacious but consume more fuel. The US should work harder to get Chinese people to like American cars. However, due to the trade war, an extra 25% tariff has been levied against American cars. It is already difficult enough for American cars to compete with Japanese cars even without the tariff hike. Wouldn't an extra 25% make it even harder for them to compete?

If the US government has second thoughts and wants to open up again in a few years, it would be too late, since European and Japanese cars would have already taken over the Chinese market by then. It's impossible for the US to abandon globalization. It still needs the Chinese market.

China's finance industry has been relatively open over the past two years. As long as China remains open, the world will never be split in half within the context of globalization. The trade conflicts between China and the US can be resolved through negotiations, and China and Japan have set a good example for this. China and Japan have had some conflicts over the years, but the Japanese government has always separated politics from economics. There have been some political conflicts between the two countries over the years, but there is still a very close economic relationship. President Xi will visit Japan next year, and I believe Sino-Japan relations are going to reach new heights after the visit. Political relations will be improved and economic cooperation will be strengthened, which will greatly benefit these two countries.

China and Japan are highly complementary. China is good at system integration, and Japan is home to cutting-edge materials science and precision manufacturing. Working together, they could create great products.

I've always hoped that China, Japan, and South Korea would establish a free trade zone, where these three industrial powers can take full advantage of each other's strengths. We would still need agricultural products though. ASEAN could then propose to join in

by providing agricultural products and buying industrial products. This way, the free trade zone could be connected with ASEAN countries.

Seeing this bloc, with such a large population, the EU would also want to join and sell its products. What would be lacking if a China–Japan–South Korea Free Trade Zone, ASEAN, and the EU came together? Energy. Countries in the Middle East and Central Asia will be more than happy to transport their oil and natural gas over to this huge market, with a huge population and well-developed economies. This will result in a huge partnership combining Europe and Asia being established, which will definitely help us get out of an economic recession.

For this big partnership to come to fruition, Sino-Japan relations are key. If China and Japan settle their differences and work together, they can play a pivotal role in connecting the entire region. I really hope that President Xi will come to some good conclusions with Prime Minister Abe during his visit to Japan next year.

03 Tomoji Tatsumi: Moving on to 5G. The conflicts between China and the US are mainly about competing for dominance in high technology. Which company can represent China's IT sector? I think the answer is Huawei. Do you agree that there are

competitions for technological dominance in the global market?

Ren: I don't agree with the idea of competing for technological dominance. In a globalized market, everyone is interdependent. If a company produces a product entirely on its own, it will eventually fall behind. The second law of thermodynamics is about entropy. An isolated system never breaks the balance within it because it doesn't exchange energy with the outside world. As a result, the system's entropy will only increase and the system will end in entropy death.

I don't agree with the pursuit of self-reliance. We should all play our own roles in the globalized market and integrate the world's best components from different companies into the best products for human beings. If we make every component alone, we can never produce the best products. We are currently using our own components so that we can survive the crisis when the US cuts its supplies to us. I believe we can survive, but I cannot guarantee that we will remain the most advanced company in three to five years' time. Therefore, we must rely on the global division of labor to stay advanced.

Japan, the US, and Europe each have their own unique strengths, and the Chinese are a very dedicated people. Only by working together can we make the best

things in the world. Therefore, we must unswervingly follow the path of globalization.

I'm not worried that the Entity List may endanger Huawei's survival, but I'm really concerned that we may lose our position as an advanced company in three to five years. We will firmly rely on globalization, and I hope Chinese scientists can learn from Akira Yoshino, who spent 38 years of his life working on one thing. In doing so, they will then be able to provide advanced elements to drive humanity forward.

The US is a great country because it has used advanced culture and systems, as well as stringent IP protection mechanisms to attract the world's top talent to innovate in the country. Innovations are the result of decades or hundreds of years of hard work. These innovations have helped cultivate very fertile soil in the US. The US claimed that they would make better equipment than us in a few years. I have no doubt about that. I'm concerned that people may think we can continue to thrive after we survive the crisis. But this is not possible. Therefore, I'm determined to follow the path of globalization and oppose self-isolation.

04

Tomoji Tatsumi: My questions are about the Entity List and Sino-US relations. If the US doesn't remove Huawei from the Entity List, does it mean the US

wants to decouple from China? Is the Chinese government also considering the possibility of this? Do you think the current situation between China and the US will remain what it is for some time?

Ren: I do not think the technologies of China and the US will be decoupled. On the contrary, they will remain interdependent. Even if Huawei is not removed from the Entity List, it only blocks Huawei, and other companies can still buy things from the US. We are not powerful enough to change the trend of globalization. Many other companies not on the Entity List will drive globalization forward. Huawei is a very tiny thing during the course of economic development, and won't have a big impact on all of society. I hope people will not isolate themselves from the US because of their sympathy for Huawei. We are being attacked, so others who are not being attacked should take this opportunity to develop and grow.

Tomoji Tatsumi: It is said that if we entered a new Cold War where China and US were completely decoupled, the world would have two economic communities separately led by China and the US. Do you think this could happen?

Ren: I don't think it will happen. History shows that closing doors only moves us backwards. We can only make progress by staying open. Some politicians are

trying to decouple the US and the Chinese economies, but many companies are reluctant to do so, because it would affect their sales. How could they just accept that kind of thing? They want to sell more of what they have, be it airplanes, cars, or electronic components. Vendors aren't just going to accept having to sell fewer products. Selling more products is the purpose of businesses. The two economies won't split as long as people still try to buy and sell things.

05 Tomoji Tatsumi: Japan was in a fast-growing stage in the 1960s and 1970s. Many Japanese companies tried to catch up and even overtake the US. Do you have a similar goal?

Ren: We can only overtake some US companies in some domains. We can't overtake the US in all domains, because the US is so powerful and has rich technology resources. We are only able to make some breakthroughs in certain domains. That's what we can possibly achieve.

06 Tomoji Tatsumi: This question is about 5G and future communications. Right now, the world is entering a 5G era, and will even enter a 6G era in the future. During this process, what changes will be seen in China or at

Huawei? What will be Huawei's role in a 5G society?

Ren: For 5G, Huawei is temporarily in the lead because we invested earlier and heavier. But this doesn't mean we will be the leader forever. We have also been researching 6G. 6G will use higher frequency spectrums, so the bandwidth will be larger while the network coverage will be limited. That's why we haven't considered it as a mainstream technology yet. We may still need to wait another 10 years to see real applications of 6G. Our achievements in 5G wouldn't have been possible without Japan, and we will continue purchasing Japanese components at scale.

Tomoji Tatsumi: When you say 6G will arrive in about 10 years, do you mean 6G will see commercial use 10 years from now?

Ren: It's my personal conservative estimate. Maybe less than 10 years. In countries like Japan which is quite advanced in fiber, 6G will probably see faster commercial use if 6G is introduced only into the access network, instead of the entire wireless communications network. On Huawei's part, we actually worry whether it is necessary to pursue larger bandwidth, since the bandwidth provided by 5G is already too large to use up. We still need to measure the actual social needs for bandwidth based on the actual use of 5G in our society.

As our society evolves, consumer demands will

increase. The application of new technologies must be driven by demand. Any new technology that goes beyond what consumers actually need could easily fail.

07 Tomoji Tatsumi: 5G and AI are now seen as closely related. It follows naturally that 6G will drive even wider application of AI. In the current 4G era, smartphones are already ubiquitous. Do you think the way we live will be further reshaped in the future?

Ren: How the way we live will be changed is simply beyond my imagination. The information society is evolving so fast. Let's not forget the fact that a few years ago, or maybe earlier, journalists like you might find data transmission quite a challenge in your work. Data transmission that used to take two days and two nights over a telecom network with a speed of 64 kbps now only takes one second.

Back then, if you wanted to use the Internet in your home, you had to get your home wired to a telephone line. Mr. Jobs' invention [of the iPhone] gave birth to the mobile Internet which erupted like a volcano, creating a huge impact. 5G and AI combined will definitely drive tremendous social progress to an extent I can't even imagine.

Tomoji Tatsumi: In the future 5G and AI era, do

you think there will be revolutionary innovation or invention like Mr. Jobs' that led to the boom of the mobile Internet? Will that invention come from Huawei?

Ren: I think AI will have an even more profound impact than that of Mr. Jobs' invention. But the revolutionary invention will not necessarily come from Huawei.

Tomoji Tatsumi: You mentioned that 5G and 6G will significantly contribute to the world. In what direction will Huawei develop? Will Huawei play a role in driving the adoption of 5G and 6G?

Ren: When massive amounts of data are generated, the next key step is data transmission and channeling. Huawei will remain focused on the channeling, distribution, storage, and processing of information traffic. Our business will not deviate from this path.

08 Tomoji Tatsumi: It is globally acknowledged that Huawei is a very powerful player in technology, and may even guide the development of many technologies. Some have said that the reason behind the US's attack on Huawei is that it needs to weaken or even restrain Huawei's growth to curb China's growth? What do you think of this idea?

Ren: In fact, they are doing us a favor by attacking us.

Because we at Huawei are afraid to see the company collapse, the US campaign against us has pushed us to work even harder than before. In fact, we achieved a year-on-year revenue growth rate of 24.4% for the first three quarters in 2019. In this sense, their attack is not stopping us from working hard.

09 Tomoji Tatsumi: Four days ago, China and the US reached a deal for the first phase following trade talks. For example, tariffs that were expected to be raised on October 15 were postponed. An agreement was also reached on agricultural products. However, the export ban on Huawei was not mentioned in the trade talks. What are your views on this?

Ren: I don't think that anyone in the US government will speak for us when it comes to the export ban on Huawei. It's virtually impossible that the US will lift the ban. If a member of US Congress were to speak out in defense of Huawei, they would be condemned by other members. There is a general consensus in the US government about the ban on Huawei. We are prepared to remain on the Entity List for a long time to come.

10 Tomoji Tatsumi: Before the interview, I read the book *Huawei: Leadership, Culture, and Connectivity* written

by Tian Tao. He mentioned you had predicted that there would be some conflicts between Huawei and European and US companies back in 2003. Are the conflicts you are facing now the same as those you predicted? It has been 15 years since 2003. What have you done to get prepared?

Ren: In fact, the conflicts we are facing today are much more serious than those we once imagined. The US is a member of the Wassenaar Arrangement and has its own rules for items with an Export Control Classification Number (ECCN) whose third and fourth digits are both 0. These rules prohibit the use of US technologies for military purposes by other countries. Huawei only makes products for civilian use. Many years ago, we were worried that the US would expand the scope of controlled items, leaving us unable to buy components from them, so we began to develop some components for our own use. We never imagined that the US would attack us so hard. It is indeed a heavy blow to us.

11

Tomoji Tatsumi: Just now you mentioned that there is a consensus in the US about imposing an export ban on Huawei and adding Huawei to the Entity List. Why is that?

Ren: I think there is a consensus among US politicians; I didn't say that businesses are on board.

Tomoji Tatsumi: The US has two major parties: the Democratic Party and the Republican Party. How is it that they hold the same position on Huawei?

Ren: I don't know. In the 1970s and 1980s when Japan's growth rate hit an all-time high and could have afforded to buy pretty much anything in the world, the US launched a campaign against Japan. When the US thought that the military forces of the Soviet Union were too strong, they also worked to contain the state, which was one of the key factors that ultimately led it to break up into 15 countries.

Now the US wants to do the same to China – to limit its growth as they did to Japan and the Soviet Union. But they haven't realized that China can only buy more airplanes, cars, food, and other things from the US when China develops and has money to spend. If the Chinese economy collapsed, the US economy would also suffer.

12 Tomoji Tatsumi: You have just mentioned that Huawei will remain on the Entity List for a long time to come. You also said that Huawei will help increase 5G penetration, and you also have a conservative forecast of 6G in the next decade. Will the US attack have a negative impact on the development of 5G and 6G? How will Huawei deal with these negative impacts?

Ren: We need to make more investment in basic

research and theoretical research to develop new theories and new technologies that we cannot buy from elsewhere. This will help us keep up with the times.

Tomoji Tatsumi: Can Huawei continue to maintain its current growth momentum even if the US does not export components or technologies to Huawei for a long time to come?

Ren: Even if the US doesn't export to us, we can import from many other countries and regions like Europe and Japan.

Tomoji Tatsumi: Regarding basic research or theoretical research you mentioned just now, some US universities and research institutions have stopped collaborating with Huawei. Has this affected Huawei?

Ren: There are many other universities around the world. The US is not the only country that has top-notch universities.

Tomoji Tatsumi: The US has all kinds of technologies and products, like semiconductors, operating systems, as well as Google's products, and Qualcomm's chips. Without US technologies and products, do you think 5G will continue to develop?

Ren: Yes.

Tomoji Tatsumi: Some people think that we are currently heading towards a technology decoupling

or split between China and the US, even if that isn't what the US may intend to achieve with their actions. It looks like in the future, China and the US will have their respective technologies that they will not share with each other. The technology world is going to be split into two, and there even will be a Chinese economic circle and an American one. Do you think this is possible in the future?

Ren: No, I don't think so. If Qualcomm's and Huawei's chips are not interoperable, people would have to have two phones. In the past, it was difficult to send files from one device to another, but now it only takes a second. That's because there is a common set of standards. Two or three sets of standards will only hinder global development. Even if some politicians want this, the people will not accept this kind of change.

13 **Kosuke Kinashi, Shanghai Bureau Chief, *Kyodo News*:** I would like to ask you two questions. First, Germany officially announced this morning that it will not exclude Huawei from its 5G rollout. What do you think of this? Second, the Japanese government decided to exclude Huawei from its 5G rollout early on, without even trying to verify Huawei's security. What do you think of this?

Ren: First, we really welcome Germany's and the EU's

adoption of a fact-based approach to set higher security standards for all vendors instead of banning any one of them from its 5G rollout. I very much support the EU's digital sovereignty strategy. Previously, wealth came from things such as mining and agricultural products. Wealth was strongly related to how much land you owned. This is the basis for geopolitics. However, information has no national boundaries, and is transmitted all over the world. If a country defines its digital sovereignty, it establishes its sovereignty over its information-based wealth. We support Germany and the EU's practices in this respect. According to the rules they set, a company should promise to not commit any wrongdoing, and then be subject to review. If this company has not broken its promises, it is a good company. Their conclusions are based on facts and are not subjective.

Second, we understand the Japanese government's choice. Customers have the right to choose the products they like, and to choose how they decide what they prefer. We may sell some products, but not everyone has to buy it just because it has a big brand name like Hermès.

14

Tomoji Tatsumi: A question about Huawei's presence in the Japanese mobile phone market. Huawei smartphones are now very popular in Japan. But

if Huawei phones couldn't use Google's operating system, Japanese people might not use Huawei's new smartphones in the future. This is also my concern as a user. How does Huawei respond to this or what plans do you have?

Ren: We understand that some consumers might stop using Huawei mobile phones for a certain period, but we are working to change the status quo.

Tomoji Tatsumi: Are you working to develop your own operating system and create an ecosystem around it?

Ren: I cannot say for sure that we will nail it. But we are working hard to make it happen.

Tomoji Tatsumi: 5G and 6G networks will become prevalent. Does this mean that 5G and 6G devices will be available on the market at the same time?

Ren: Yes.

Tomoji Tatsumi: Personally, I use devices like phones, tablets, and PCs quite a lot. Will there be any innovative devices that we have never seen before in the future?

Ren: Yes, there will be a wide range of devices in the future. All of them will be interconnected, and there will be no need to re-import data to new devices. Software is not something we can touch, so how does software deliver an experience to us? That's where devices come

in. There will be various devices, not just mobile phones.

Tomoji Tatsumi: The future is beyond our imagination. I was based in Beijing as a correspondent between 1997 and 2000. At that time, a staff member at a TV station told me that in theory, smartphones could be developed, and that we would be able to film a video with a smartphone and send it to another phone. We laughed at him as we thought he was just kidding. But now, what he said has become a reality.

Ren: I'd like to give you a CD as a gift. This CD is about the grand evening gala that was held to celebrate China's 70th National Day. There were tens of thousands of people performing, and our 5G technology helped transmit these immersive performances to TV stations.

You are media professionals, so you must know that with traditional technologies, it's impossible to capture high-quality, crystal clear videos of such grand events, along with the movements of tens of thousands of performers in real time. There was not a single freeze frame throughout.

With this CD, you can experience how 5G is applied in broadcasting and TV. During the parade, we can see that some people have a small backpack, which is actually a base station. These people are holding their camera in front of them, which transmits the videos filmed back to CCTV for editing via the base station in their backpack.

As experts in the media industry, you will understand the incredible applications of 5G after seeing such high-quality videos.

Tens of thousands of people were moving quickly as they gave their performances. It just shows how happy the Chinese people are. The 5G networks used were all provided by Huawei.

15 Tomoji Tatsumi: US Congress imposed a series of sanctions on Huawei on the grounds that Huawei's communications equipment might be used to steal information. However, so far the US has provided no solid evidence supporting this. Has the US directly shown you the evidence that they have obtained?

Ren: Over the past 10-plus years, we have received the world's most rigorous oversight. Almost every country has cast doubts on us, and almost every intelligence agency has their eyes fixed on us. If there were really something wrong with us, they would have found it early on.

The firewall for our IT network was actually built with bricks from the US. Our network does not guard against the US or other countries. It only defends against our malicious competitor trying to steal our technologies. Everything is crystal clear to those who monitor us.

Thus far, there is no evidence showing that we have committed any wrongdoing.

Tomoji Tatsumi: It is widely believed that the US and European countries are very strict with domestic information management. Some people say that Chinese laws and regulations allow the Chinese government to access certain information. Some even claim that Huawei is not trustworthy because of the Chinese social system. What do you think?

Ren: We are a company of integrity and are responsible to our customers. We will not do anything unethical.

16

Kosuke Kinashi: If I remember correctly, you will celebrate your 75th birthday on October 25. You are a very successful leader, but no one is immortal though. Have you started to consider who your successor will be? Has there been a decision on your successor? If there isn't yet, what kind of successor do you think can help maintain Huawei's leading position for the next 10 or 20 years?

Ren: Our company has developed an institutional succession mechanism. We will not appoint an individual as my successor, but instead will follow an institutional succession mechanism. We can send you a copy of my speech to the company's Fourth Representatives' Commission. In this speech, I talked about this topic in

detail.

Right now, I actually don't have any authority regarding the specifics of corporate operations. I only have the right to veto, but I've never used it. This right was set to expire at the end of last year. However, we worry that emergencies may happen. Then if a vote by all employees ended up accidentally setting the company down the wrong path, that decision would have to be vetoed. So we decided to keep this veto right.

The veto right will not be mine alone, and it will not be passed down to any of my family members. Instead, it will be eventually passed down to a Core Elite Group consisting of seven people who will be selected from former board members, supervisory board members, and senior executives. We set up this veto system to ensure that the company will not accidentally make a mistake that ends up destroying everything we've built.

17

Tomoji Tatsumi: We talked about your family just now. Is there any new progress regarding Ms. Meng in Canada?

Ren: We are still following the judicial procedures to resolve this issue one step at a time.

18 Tomoji Tatsumi: The Chinese government is promoting the Belt and Road Initiative. Has Huawei participated in or supported this initiative?

Ren: Huawei has not participated in the Belt and Road Initiative. This initiative focuses on large-scale infrastructure projects, and generally, telecom contracts are relatively small. So we haven't signed any contracts under this initiative.

19 Tomoji Tatsumi: The latest figures show that Huawei has 188,000 employees worldwide. Has the China-US trade war affected the number of employees? Will the number decrease?

Ren: The number of our employees has increased to 194,000. Since we have many holes to patch, we need more talent, so we recruited several thousand more people this year.

Tomoji Tatsumi: You aren't just recruiting people in China, right?

Ren: No, globally.

Tomoji Tatsumi: If you are hiring people globally, are there any regions that you focus on? For example, countries like India have strengths in science and technology. Are you focusing on these countries?

Ren: When it comes to recruitment, we don't have any restrictions. Nevertheless, there are some restrictions in the US. The US government doesn't let Americans work with us, and they will intervene in any engagements that they believe may have US elements. We are not hiring talented people from the US, which is a big loss for us. In other countries and regions, there aren't restrictions like this.

Tomoji Tatsumi: Many outstanding Chinese people at American universities, research institutions, and Silicon Valley are also under fire. Are Chinese people returning in droves from the US to join Huawei?

Ren: Chinese students who have studied in the US can join us, but Chinese-Americans, including those with green cards, cannot since they fall under the US's jurisdiction.

20 Tomoji Tatsumi: What is it that you want most right now?

Ren: Trust. I hope more people in the world will place their trust in us. I have frequently met with media representatives because I want our messages to be shared, which will help people know more about us and pull back the "veil". Actually, there is no veil at all. Made-up stories have just muddied the waters.

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Tomoji Tatsumi: We are the first Japanese media outlet you have had an exclusive interview with, Mr. Ren. It's such an honor and pleasure. Your candid replies today represent your high expectations for Japan, don't they?

Ren: I have always had high expectations for Japan. My younger daughter speaks Japanese as her second language and French as her third language.

Tomoji Tatsumi: It's said that you have come to Japan not just for work, but also for personal reasons.

Ren: Yes, to travel.

Tomoji Tatsumi: What do you like the most about Japan?

Ren: There's too much to name. I have visited almost every corner of Japan, from Kyushu to Hokkaido, and most of its cities and villages, big or small. I tell a lot of people that Japan has the world's best tourist attractions. You don't have to really decide where to go. Any small mountain village can be a good place to stay a while because it's always clean and the Ramen noodles are fantastic.

Tomoji Tatsumi: What are your hobbies, Mr. Ren?

Ren: Working and watching TV.

Tomoji Tatsumi: President Xi will visit Japan next year. Have you considered coming to Japan during President Xi's visit?

Ren: I'm willing to visit Japan at any time.

Tomoji Tatsumi: **Do you have concerns or worries about your personal safety when visiting Japan?**

Ren: I don't think I have anything to worry about.

22

Kosuke Kinashi: **Huawei has business in more than 170 countries and regions and employs 194,000 people. But we have noticed that there are only Chinese employees on Huawei's board; if we look at the local offices or subsidiaries around the world, the majority of the executives are from China as well. Very few are local. Has Huawei considered appointing some non-Chinese board directors or more local executives for local subsidiaries? This would be helpful in making Huawei more open and transparent, wouldn't it?**

Ren: We do have quite a few locally hired executives. We have more than 30,000 non-Chinese employees, and our subsidiaries also have many non-Chinese board directors. All of our board directors at HQ must have a solid work history with the company. Even if a non-Chinese employee was put on the board, if they haven't started from an entry-level position and climbed their way up step by step, then they would be on the board in name only, because they wouldn't have any real authority. I don't appoint our board members. All of

them earned their seat on the board by working from the ground up at Huawei. So non-Chinese employees can also join the board, but they need to work their way up step by step. Places on our board are definitely open to non-Chinese employees. Almost two-thirds of our Huawei Fellows are non-Chinese.

Tomoji Tatsumi: Thank you for your time today. This interview turned out to be very different from what we imagined. You've been very frank and straightforward over the course. It's been very helpful. Thank you so much!



Ren Zhengfei's Arabic Media Roundtable

October 20, 2019 Shenzhen, China

Ren: It's a great honor to have an interview with world-class media like everyone here today. I've been to many Arab countries and regions, traveling across almost all of the countries in the Middle East and Northern Africa. I have great admiration for the splendid culture and long history of the Arab world.

I have a good friend Wang Hanjiang who once served as Director of the West Asia and Africa Division of the Ministry of Foreign Economic Relations and Trade of China, the predecessor of China's Ministry of Commerce. He majored in Arabic. Over the 20 years of knowing each other, he has constantly told me about the profoundness of Arab culture. Though I can't read the parchment scrolls, his explanation has helped me understand and appreciate the beauty of the Arabic script, and it has ignited my heartfelt admiration for the splendor of the culture.

The Arab world has so much more than just the Hanging Gardens of Babylon and majestic pyramids. I felt shocked when I first saw the Baalbek temple complex. I was speechless for several hours. The guide was saying a lot, but I was awestruck by this civilization that could be traced back to four or five millennia ago, to the extent that I couldn't say a word. Even for today's master architects, building this huge complex would still be very difficult and challenging. We just don't know how these ancestors living four to five thousand years

ago did floor planning, three-dimensional design, and construction coordination to get this huge project done.

We have no answers to any of these questions. The stone columns are so big that you need several people holding hands to wrap around the base, but how did they make them so round? What geometry theories did they apply? How did they make the hundreds of columns so even? How did they measure them and what dimension did they use? How did they do the calculations? The columns are about 22 meters high, so how did they even stand them up? The roof is made up of a single piece of stone weighing about 900 tons. How could they put the stone on top of the columns? There are several hundred of these 900-ton stone roof slabs. How could they pile them up and transport them here? The design of the whole complex is so harmonious and perfect. But it was built four or five millennia ago. So I was deeply touched and impressed by the ingenuity and greatness of our ancestors.

I had the same kind of feeling at many other Arab tourist destinations, like the Luxor Temple, the ancient city Petra, and the Egyptian Museum. In the Egyptian Museum, you can see that the bright piercing eyes on statues made 4,500 years ago are still so vivid and lifelike. The civilization there must have been 1,000 years ahead of the Chinese civilization. The Middle East built these unparalleled architectures over four or

five thousand years ago. I have so much respect for the Middle East civilization. Even today's top architects would feel it a huge challenge to design such buildings.

It would have been impossible to make these temples a reality without a very good mastery of mathematics, geometry, and engineering design. From history of the world, the splendid Arab civilization emerged even earlier than Greek civilization, which discovered Euclidean geometry and the Archimedes' principle. Things like spices, carrots, green onions, and garlic weren't the only things the Silk Road brought from the Arab world to China; geometry, algebra, engineering design, and Arabic numerals came too.

Today, we are all aware that Arabic numerals laid a great foundation for mathematics. In particular, the addition of the numeral "0" triggered an epoch-making technological revolution and innovation for the world, though it entailed a bit of controversy for a few hundred years. Overall though, the addition of "0" to the Arabic numerals gave a strong impetus to the progress of human civilization.

As we stand on the Great Wall and look in the direction of the pyramids, we can imagine how our ancestors used camels to transport our silk and tea to the Arab world, and then transport spices, carrots, and garlic to China. This was a tough but great journey. The

Silk Road established by our ancestors connected the cultures of China and Central Asia, and we have great admiration for it. I believe we should continue in the spirit of the Silk Road today. In the past, camels passed along the Silk Road, and today 5G and high-speed rail should be allowed to do the same. This will drive the economic growth of Africa and Asia.

Thank you! I am ready to take your questions now.

01

***Al-Ahram:* First of all, thank you, Mr. Ren, for giving us this opportunity. We all know that Huawei has been investing heavily in scientific research, and is a world leader in 5G. What future-proof 5G technologies will Huawei bring us over the next five years?**

Ren: First, Egypt is a great country, and I really admire it. Around 2,000 years ago, Egypt had the Great Library of Alexandria, the world's largest at the time. You also have the ancient pyramids and the more modern Suez Canal. These all represent great things in human civilization. I believe Egyptian society is stable, and Egyptian people are friendly, which has nurtured a booming tourism industry. When I took a boat and traveled along the Nile, I wondered why we can't sing on the Huangpu River in China like they do on the Nile. We really have a lot to learn from Egypt.

The key to rejuvenating a country and a nation lies in education. I hope Huawei can help rejuvenate Egypt, a great country that is home to the pyramids, the Great Library of Alexandria, and the Suez Canal. We will use 5G and other cutting-edge technologies to help Egypt bridge the digital divide, contributing to the country's cultural and educational development.

02 ***Al Bayan:* First of all, I'd like to thank Huawei for giving me this opportunity. My question is about the recent conflict between China and the US. It focuses on economy and technology. You have often distanced Huawei from this conflict. However, during an interview with *The Economist*, you said Huawei is willing to share technology with the West. Wouldn't such an offer put Huawei at the center of the storm between China and the US?**

Ren: In 1996, the UN implemented an Oil-for-Food Program in Iraq, which was also when I visited Dubai for the very first time. At that time, Dubai was tearing down houses to begin mass construction. I was impressed by Dubai's open culture. It does not actually have that many resources, but is open and has an unshakeable "can-do" spirit. I admire it greatly. I also read a book by Sheikh Zayed, and greatly respect his views.

After returning to China from Dubai, I wrote an article

titled Resources Can Be Exhausted and Only Culture Endures. Huawei also has few resources to depend upon. What we do have is the brainpower of our employees. This is our oil, our coal, and our forests. So we strive to promote an open culture of dedication.

During the same period in 1996, I also visited Tunisia. At the time, the per capita GDP there was 1,400 US dollars, and people lived happy lives. Neither Dubai nor Tunisia has a lot of resources. Religious reforms in these two countries have brought new life to their cultures, making Tunisia and Dubai role models for reformation across the Arab world.

The UAE is now one of the world's prominent business centers, and has become a country full of immigrants. It has managed to build a world-class business center amidst desert, and I have every reason to believe that it is also capable of making itself a global center of scientific and technological innovation. I believe that the UAE should learn from the US, which attracted a great number of outstanding talent from other countries, and made itself the world's most powerful nation in just 200 years.

Is it possible for the UAE to also become the global center of scientific and technological innovation? Your UAE Centennial 2071 Plan means you are well positioned to achieve that. Many great Americans

originally came from Eastern Europe, and fully leveraged their potential to make the US the most powerful country in the world. The UAE has a wonderful business environment, and I think you have the tools to build the world's best center of scientific and technological innovation by attracting immigrants like the US did in the past.

In the past, Arab civilization was ahead of some parts of the world for around 3,000 years. Why did it lag behind Europe later on? The Europeans invented trains and steam-powered ships, which allowed them to transport more goods far more efficiently than camels. That's why the Industrial Revolution took place in Europe first. From this we can see that speed and bandwidth determine how strong and prosperous a country is. In the past, speed was about how fast physical goods were shipped. Today, speed is about how fast data can be transmitted, and this will be powered by 5G. I believe the UAE should take this opportunity to surpass other countries.

We think that many countries in the Middle East may become the world's highest ground when it comes to 5G deployment, where a new, splendid Arab civilization may emerge with 5G's high speed, low latency, and high bandwidth. Saudi Arabia boasts the largest number of YouTube visitors every day, and the per-capita per-month

data traffic consumed in Kuwait was among the world's highest, at 60 gigabytes. 5G from these countries will spread to other Arab countries and then to the rest of the world. In the 4G era, Japan and South Korea led the world; while in the 5G era, the Middle East is taking the lead. Therefore, a new splendid civilization will emerge in the Middle East. I strongly support the UAE Centennial 2071 Plan and its national strategy to develop 5G, AI, and cloud.

03 ***Al Bayan:* You just mentioned that Huawei is willing to share its technologies with Western companies, such as US and European companies. What are your thoughts on that?**

Ren: Europe does not need our technologies, because they have their own communications technologies. We have signed cross-licensing agreements with European companies, so we are open to each other. The US lacks the most advanced communications technologies, so we hope to strengthen our cooperation with US companies. If we could help them catch up in terms of communications, it would be helpful to strike a balance around the world and resolve the conflicts we face.

The Middle East tends to remain politically neutral. The US has sanctioned only Huawei, and Huawei is only ahead of US companies in the communications sector,

not in all sectors. We are ahead of the US only in 5G, and still lag behind them in AI, cloud, and intelligent computing. The Middle East can select the best technologies from the US, Europe, Japan, South Korea, and China to build a technology high ground in the region. Just like its culture, Dubai's ICT infrastructure can also be diversified in the future. A platform that is made up of various technologies from various countries will be the strongest platform.

04 *Sabq Online:* **I'd like to know if the US sanctioned Huawei based more on political grounds than on security grounds.**

Ren: Of course. Huawei hasn't done anything wrong, so the US sanction should be politically motivated. Saudi Arabia has a culture of wisdom, and it is clear to see the country's greatness today. I admired the government for remaining poised when its oil facilities were attacked. This allowed the country to quickly restore its global oil supply, helping the world avoid a huge crisis. I also admire Ahmed Zaki Yamani, former Minister of Oil of Saudi Arabia. When oil prices skyrocketed to 140 US dollars per barrel, he said, "The Stone Age ended not because of a shortage of stones." These words really impressed me, and showed the amazing foresight that the Arab world has developed over its thousands of

years of civilization.

The minister has discussed how the oil reserves will dry up one day, and how Saudi Arabia is worried about the rise of non-fossil energy. Saudi Arabia can use some of its oil wealth to research technology for non-fossil energy. When the oil reserves dry up, Saudi Arabia will then continue to be the greatest country in non-fossil energy. Saudi Arabia can take the lead to use non-fossil energy, and supply the oil and natural gas it would have otherwise consumed to the rest of the world. This will facilitate the development of technologies for non-fossil energy. The most critical technology for non-fossil energy is storage, and Japan has the most advanced technology regarding large-scale storage. If these strengths are brought together, a powerful non-fossil energy belt can form, ranging from the Sahara, to the Tibetan Plateau, to China and Japan, and finally to the Amazon and Latin America. When oil reserves dry up, Saudi Arabia will emerge as a key provider of energy machinery and non-fossil energy, and your wealth from oil can be transformed into cultural and digital wealth, meaning AI and other new technologies.

Oil will dry up and currency will depreciate. The way forward is to use the money earned from oil to improve education, enhance innovation in science and technology, and invest in digital technologies, keeping the country young forever.

Huawei can survive only in 5G without relying on the US. Saudi Arabia can consider using other technologies of the US.

***Sabq Online:* How can Saudi Arabia benefit from the technologies of China and the US?**

Ren: Introducing AI to energy technologies will generate huge wealth. I worked in petrochemicals over 40 years ago, and then later, about 20 years ago, I visited an oil refinery that China helped build, which could produce ten million tons of oil. When I got a glimpse of its control room, I was shocked by how much progress the industry had made. I haven't been to a plant or refinery again over the latest 20 years, so I can't imagine how advanced they must be now. The progress to be made in the future will be unimaginable.

Saudi Arabia is great because it invests heavily in education, such as its huge investment in Princess Nourah Bint Abdulrahman University, the world's largest university for women. Saudi Arabia has been opening up and constantly adapting itself to changes in society. With the huge wealth it has, the country will certainly witness the rise of other industries in addition to the oil industry. Like highways, 5G is a sort of infrastructure that provides high bandwidth and low latency. 5G itself does not create wealth, but it enables new technologies that can create wealth.

05 ***Leaders:*** Thank you, Mr. Ren. I represent the Tunisian magazine *Leaders*. You said that Tunisia left a deep impression on you. Tunisia's experience shows that reforms and technological innovation can help rejuvenate our civilization. Based on your experience visiting Tunisia, how can Tunisian young people truly benefit from and contribute to Huawei's development and technological innovation?

Ren: Let me tell you a story which happened during my first visit to Tunisia. My colleague Lv Xiaofeng was accompanying me there but left one day earlier than me. Unfortunately, his plane crashed before landing in Tunisia. He was among the 40 people who survived the crash. I was supposed to be on that plane too, but I was delayed by other matters. It was raining heavily on the day of the plane crash. Lv called the police amidst the rain and saved a little girl from the plane. Seeing the girl shivering, he took off his coat and gave it to her. When I arrived the next day, I bought a suit for him. It was 2002.

At that time, per-capita GDP in Tunisia was over 2,000 US dollars, compared to about 1,000 US dollars in China. I felt like the Tunisian society was harmonious and pleasant, and the Mediterranean coastal regions were very beautiful. I was quite impressed by Tunisia the first time I was there and was even more impressed during my later visits there.

The development of Tunisia will require further religious reforms. I think they should be more open. Tunisia is situated across the sea from Europe and labor costs are lower than in Europe. Europe should undertake a large-scale relocation of its manufacturing centers. So how can you make sure you are prepared for such a relocation? First, you need to cultivate talent. Second, you need to improve your infrastructure, which of course includes communications networks. Networks can greatly improve access to education.

South Korea was among the earliest to invest heavily in 4G. This investment didn't bring high returns to telecom carriers, but it did greatly boost the country's GDP. Every dollar invested in ICT will generate multiple dollars in GDP. That's why AI and 5G are crucial to Tunisia. If you are to embrace Europe's relocation of its manufacturing centers here, you will need to adapt to their system and meet their standards and requirements.

Yesterday, you visited our production lines. From design to manufacturing and supply, we use management software from Germany's Siemens and Bosch, and from Dassault of France. A lot of equipment on our production lines is from Japan and Germany, though our AI software was developed in-house. Our production lines can now turn out a mobile phone every 20 plus seconds with basically no manual operations.

Therefore, I believe the industrial relocation will take place tier by tier. We all need to prepare ourselves for the relocation and unwaveringly embrace globalization.

06

***Al Raya:* Thank you, Mr. Ren, especially for your remarks on the exchanges between the civilizations of the Arab world and China. As an Arabian, I will never forget the huge contributions that the Chinese civilization has made to the world's development, for example, papermaking and other advanced science and technology. Now Huawei is providing advanced 5G technologies to the world, which, I believe, will greatly fuel the development of the world's civilization. What role will Huawei's four sustainability strategies play in environmental protection?**

Ren: I think Qatar is a great country. I'm especially impressed by the importance that Her Highness Sheikha Moza bint Nasser attaches to education.

The UAE constantly sends its natives to the UK and other parts of the world to receive training. If grandfathers cannot make it, their sons will; if their sons cannot make it, their grandchildren will. By doing so, they want to make sure that their future generations can effectively manage their huge economy and maintain their high ground in the world.

Her Highness Sheikha Moza bint Nasser greatly

values education, which, I think, is wonderful. She has introduced advanced elements of education from around the world and integrated them into Arab culture. She has also established lots of museums, allowing Qatari children to have access to the world's civilization from childhood. I really admire her on this.

One year I went to Qatar for a meeting. Before the meeting, I was told that Her Highness Sheikha Moza bint Nasser wanted to meet with me, but later I was told she wouldn't, so I didn't take my suit there. After I arrived, her secretary visited me and said the prime minister wanted to meet with me. I hadn't taken my suit, and felt it would be impolite to meet with the prime minister in casual wear, so I asked the board chair of the company to meet with the prime minister. The meeting focused on how to ensure smooth and secure communications during the 2022 World Cup. Now, with 5G, I'm sure that the 2022 World Cup will be a great success.

During that meeting, we briefed the prime minister on Huawei's contributions to the Hajj pilgrimage in Saudi Arabia. For 15 straight years, there has not been a single network interruption, accident, or complaint throughout the event. Each year, 3 to 4 million Muslims gather in an area of just 10 square kilometers. They turn off their mobile phones before praying, and when they

turn their phones on again, they need to get all of their phones authenticated almost immediately. This puts great pressure on networks, but we have managed to guarantee secure communications during the event for 15 years running.

We also worked together on the safe city project. The goal is to prevent terrorist attacks. This project was also developed from our experience in Hajj. The day after the meeting, the prime minister sent people to Mecca to examine our work. Here I'd like to wish Qatar a great success as the host of the 2022 World Cup. If you choose our equipment, we will do everything we can to provide communications assurance.

I will give each of you a CD, which shows a performance marking the 70th anniversary of the founding of the People's Republic of China. The video was shot over 5G networks. Although there were tens of thousands of people performing, the video flowed smoothly and there was no buffering. You are all media insiders, so I'm sure you see the value 5G brought to this event.

Since our safe city project at Mecca, safety management has already come a long way. We can help ensure safety in Qatar during the 2022 World Cup. Of course, Huawei only provides equipment, and the police officers of Qatar will be responsible for the specific

operations.

***Al Raya:* Has Huawei reached any agreement with the Qatari government on the 2022 World Cup?**

Ren: We are currently building communications networks for the 2022 World Cup stadiums in Qatar. We are still in talks with our local customers on some other projects.

07 *KUNA:* China and the US seemed to have sent positive signals about the trade negotiations. Will this affect Huawei? Will the US's sanctions against Huawei affect Huawei's overseas business and future development?

Ren: The US's sanctions against Huawei have little to do with the trade negotiations between China and the US. Currently, we haven't seen any improvement in our overall environment. Regardless, this will not affect our innovations and advancement. It does slightly affect our overseas markets by making some customers hesitant to do business with us, but we will be patient with them.

08 *KUNA:* Kuwait is moving forward with smart city development in the Silk City and five northern islands. Could you explain to me what Huawei can do for Kuwait in this area? What are the two parties' future cooperation plans?

Ren: The per-capita per-month data traffic consumed in Kuwait was among the world's highest, at 60 gigabytes. With the most advanced 5G technologies, we want to help all the countries in the Middle East become the world's highest ground when it comes to the volumes of data traffic. With the support of 5G, the region will continue to create innovative new technologies and inventions.

The Middle East has chosen to use the 2.6 GHz to 3.5 GHz band for 5G, which is also used commonly around the world. By doing this, the Middle East can share in the value of the global 5G value chain, as they are the most suitable bands for 5G networks. China has also chosen to use these bands for 5G. In addition, the telecom regulator in Kuwait has allocated over 100 MHz of spectrum to every carrier and thus provided sufficient support to 5G's development. This means they can make full use of 5G. Why have I said that the Silk Road of camels could evolve to a 5G road? We think that the Middle East will become the world's highest ground for 5G. How to rejuvenate the culture of the Arab world is a topic we need to discuss together. 5G will be the infrastructure of this new, rejuvenated civilization. Similarly, China will also become one of the world's high grounds for 5G.

Huawei is now participating in the planning and

designing of Kuwait's five northern islands. When the Emir of Kuwait visited China in 2018, we signed a smart city cooperation agreement with Citra on the five northern islands. Huawei is now one of the consulting companies for this project. Huawei provides Kuwaiti carriers with 5G solutions, and works with the Kuwaiti telecom regulator to develop 5G use cases. In addition, we will also support the rollout of the New Kuwait Vision 2035.

09

***Le Matin:* I have learned a lot from your wisdom. You have spoken a lot about education and how important elementary education is, particularly how education is crucial to enhancing national competitiveness, in your media interviews. Your views have a lot in common with those we have in Morocco. Our country is committed to improving education. How can Huawei's technologies be used to transfer knowledge and skills in the future? How can the younger generations in Morocco contribute in this regard?**

Ren: Morocco is a very beautiful country. I have visited several times, and Casablanca has left a vivid impression in my mind. I have known the name Casablanca since I was very young, because it was famous for being a "nest of spies" in World War II. I used to hear a lot about Rick's Café, but I didn't get a chance to have a cup of

coffee there, even though I had been to Morocco many times. Later, I asked someone to make a reservation several days in advance, and took my wife there. I finally managed to have a cup of coffee there, and enjoyed what I had seen in the movie Casablanca – the beauty of Casablanca's coasts and the vastness of the sea.

We are aware that Morocco takes education very seriously. Morocco's University of al-Qarawiyyin is the oldest university in the world. Teachers and students used to sit in the corridors or the gardens reading scripture, exchanging ideas, and cultivating morality. That's how the term "academy" was coined. Universities evolve from academies, but are larger academies.

I think to rejuvenate a country, we need both hard and soft infrastructure. Hard infrastructure includes roads and networks, while soft infrastructure includes education, regulations, and institutions. Since ancient times, government officials have said that building bridges, roads, and schools is their primary responsibility.

Morocco should leverage advanced networks to make basic education easily accessible to children. You need to give quality elementary education to children on a large scale, ensuring no one is left behind. In fact, I believe the educational model in Northern Europe would be a good fit for Morocco. I think the elementary education in both Finland and the UK is very good.

It would be beneficial if Morocco could make basic education more accessible, vigorously promote vocational and technical education, and provide the best students with elite education. In terms of elite education, the US has set a good example. Only a few US universities advocate elite education, which is not just about full marks in college entrance exams.

US elite education focuses not only on students' academic performance, but also morality. When admitting excellent students, these top US universities follow 10 standards, two of which are the most important: Have you ever taken care of the elderly? Have you ever volunteered to help orphans?

If a student fails to meet either of these two standards, their scores for entering these universities will see a huge decrease.

What is elite education for? To cultivate leaders. What are the responsibilities of leaders? Caring about all of society, including those who don't have the ability to take care of themselves. Top universities should not cultivate people who are too calculating or self-interested. Instead, elite universities should cultivate people who care about society.

If Morocco is able to classify education into these three levels, I believe you will have a huge number of engineers who can combine the industrial culture of

Europe with your own culture. This way, you will see amazing new developments.

The only thing that separates you from Europe is the Mediterranean. If you have a large number of excellent engineers, you will definitely develop into a technological power.

10 ***ADTV:* First of all, thank you, Mr. Ren. You mentioned the UAE's diversified environment. Because of this, the UAE has achieved rapid economic growth in a short period of time without relying on oil. Now the UAE's economy ranks 29th in the world and second in the Arab world, next only to Saudi Arabia. The oil industry accounts for only about 30% of the UAE's economy, and the other 70% are non-oil industries. The UAE government has appointed a Minister for Happiness and Wellbeing and a Minister of Tolerance. The government also has a diversified workforce with talent from nearly 200 countries. Not long ago, we saw the first UAE astronaut board the International Space Station. The friendly partnership between China and the UAE is also developing rapidly. The UAE has been an early adopter of 5G, along with a number of other countries in the Middle East. However, some people claim that Huawei's 5G technologies pose information security risks. How do you respond to such claims?**

Ren: First, Abu Dhabi is one of the richest places in the world. I fully understand and firmly support the UAE's Centennial Plan, and the plan to convert your oil wealth into scientific, technological, and digital wealth. Because one day, oilfields will be exhausted and the value of money will change, but digital science and technology will keep creating value through continuous innovation. The UAE has freed its reliance on oil. At the current historical moment, it is absolutely correct for the UAE to make this strategic decision.

When countries regard physical resources as wealth, geographical boundaries are very important. However, the wealth of digital technologies is global and transcends boundaries. We must respect the UAE's digital sovereignty as it can guarantee national information security. Huawei is currently in discussions with countries around the world about signing a "no-backdoor" agreement. We can also sign this kind of agreement with the UAE.

***ADTV:* Could you talk more specifically about the concept of a "backdoor"?**

Ren: The term "backdoor" comes from the US. Through backdoors, data could be stolen from your networks.

***ADTV:* Does signing a "no backdoor" agreement mean Huawei will not acquire data from the networks of its customers?**

Ren: Yes.



***Al-Ahram:* Unemployment is a serious, global issue.**

Can new technologies help fix this issue?

Ren: AI can create more wealth than ever for a society, but of course, people who can't find a place in this new society may have a hard time getting a job. In a traditional, industrial society, getting a job is not a problem for anyone who finished high school, vocational school, or higher-level education. In the new era, when AI and IT become the main drivers of productivity, people who don't have an advanced skillset might not be able to find a job. That said, society will keep growing its wealth, and with more money at its disposal, it will need to consider how to put it to good use. The more money a country has, the easier it can solve its problems. The money can be used to provide support for people or to give them training.

As AI is becoming more widely adopted, employees who have been let go during this transformation can shift to sectors that focus on work related to user experience. People won't ever quite get used to having coffee with robots. I watched the movie *Star Trek the other day*, and I felt really down when I left the theater. In the spaceship, there were no human attendants at all, and all of the services were done by robots. This movie

shows how lonely and horrifying life could be in the AI era. While AI is able to meet some human needs, people will still need a human touch. In the AI era, more people will work in sectors related to user experience.

Employment is a topic of sociology. I'm not a sociologist or a government official, so I'm not in a position to answer your question. What I can say is that AI can increase productivity. Take AI in agriculture as an example. AI-powered tractors can work 24 hours a day, no matter how scorching or cold the weather is, or how annoying the bugs are. These tractors can work around the clock to plough the land along rivers like the Nile. They can turn stony ground into arable land by taking out the pebbles and rocks, and channel water from the Nile to irrigate the crops. Life may be a little less fun for people because they no longer need to do these things, but material wealth will increase.

12

***Le Matin:* Shenzhen has a beautiful environment. What is Huawei's social responsibility in terms of developing the green economy? Do you have any policies that require you to take greater social responsibility for environmental protection and green development? What are your contributions in these areas?**

Ren: Our main direction is to move forward with new technology and explore what's next. The exploration

itself is a contribution to society. During this process, our tax payments and consumption are also part of our contributions.

In terms of environmental protection and the green economy, there are two types of contributions: direct and indirect. Huawei makes indirect contributions. For example, our AI-powered base stations can reduce two tons of CO2 emissions every year per site.

13 *Al Bayan:* I have two questions. First, will the US sanctions affect the future cooperation between Huawei and the UAE on 5G? Will Huawei launch 5G services and applications in the UAE? Second, will Huawei sign a "no backdoor" agreement with the UAE in the future?

Ren: For 5G base stations, transmission networks, and core networks, we don't rely on US parts or components at all, so we won't be affected by US sanctions. We will have no problem supplying the UAE with 5G products, and we will continue to make progress and innovate. We are willing to sign a "no backdoor" agreement with the UAE government whenever they want.

14 *Al Raya:* Huawei's sales increased by 24.4% in the first three quarters of 2019. What's the key reason for

Huawei's continued growth? Considering the current pressures and challenges, will Huawei be able to sustain this growth in the future?

Ren: Before the US's May 16 sanctions against Huawei, we saw high levels of uninterrupted growth. After May 16, our growth was somewhat affected. We have to switch some versions of our products, and the production process and network quality testing of these new versions have to be certified. We are affected in this regard, but we have managed to complete this shift. We had expected the sales for products affected by the US sanctions to decline at the end of this year, but now we estimate sales to increase slightly.

The overall growth rate of 24.4% we saw in the first three quarters of 2019 was the result of the hard work from all Huawei employees. Sales for some products ended up not being affected at all. Our employees have been working even harder because of the pressure we are facing, so the growth turned out to be higher. We are confident that we will continue to see growth through the end of the year. We believe we'll be able to maintain this same level of growth next year as well. Any growth we see next year will have been achieved under the US sanctions. By the end of next year you'll see that Huawei has been able to survive. By 2021 or 2022 when these new versions of our products have matured, we may witness massive growth.

15 *Sabq Online:* When you founded Huawei, did you expect Huawei to grow into what it is today?

Ren: We founded the company when we were at the edge of starving. Despite that, we didn't just focus on earning money; we focused on our vision. That vision has changed as the world around us changes. I'd never thought about whether we would grow to this size. It's just happened naturally.

16 *Leaders:* Last September, China-Africa cooperation reached a new level, and China agreed to invest more in Africa to boost its development. What role will Huawei play in this process?

Ren: China is investing heavily in infrastructure in Africa. Overall, the value of telecom contracts is small, so we can develop on our own, with our own money.

17 *KUNA:* It is being said that Huawei has begun its research on 6G. What is your progress in 6G?

Ren: We are actually researching 5G and 6G simultaneously. 6G provides higher bandwidth, but its scope of coverage is limited, as it uses millimeter waves. If we want to apply 6G in real-world scenarios, we need to make both theoretical and technological breakthroughs in communications. I estimate it may be

10 years before we see its application.

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***Al-Ahram:* I am from Egypt, from Africa. How do you think Africa can catch up in terms of the development of information science and technology?**

Ren: How can Africa catch up? I think the key lies in reducing taxes, adopting technology neutrality policies on spectrums, and sharing infrastructure. In large cities like Cairo, every carrier can build their own networks. However, in small cities, they don't need to build their own network, because costs will be too high. Instead, all carriers can just build one shared network, where they pay when they use it. Therefore, Africa needs to strengthen its communications infrastructure, including fiber and broadband networks.



Ren Zhengfei's Interview with Euronews

October 22, 2019 Shenzhen, China

01

Damon Embling, Correspondent, *Euronews*: Ren, CEO and founder of Huawei. Thank you very much indeed for joining us on the Global Conversation here on Euronews.

Mr. Ren, I would like to start by taking you back to your early days of life, back to your childhood. You were born into one of the poorest provinces in China back then in 1944. What were your years like growing up in China? What do you remember of those years?

Ren: Well, I had a pretty carefree childhood. Today, children have so much homework to do due to the knowledge explosion. But at that time, we didn't have all this homework and our parents weren't that strict, so we could hang around and had a lot of freedom. We could just spend a lot of time playing around after school, like swimming in rivers, catching fish, and hunting birds with a slingshot.

Back then, we didn't have an abundance of material possessions and had no idea what it was like to be well-off. There was no way for us to know how our European counterparts lived their lives. Having no comparison meant that we didn't feel sad for not having it. Today, we are well aware that psychological wellbeing is actually more important than material wealth to children. Children today have a lot of stress at school because their parents set the bar too high. Though they

are much more well-off than we were, they are not necessarily happy.

So anyway I think I had a happy childhood.

02 Damon Embling: In fact, you described yourself in your early years as being a nobody, I think, in your own words. But then you went on to join the military here in China as an engineer in the army. How do you look back upon your time within the military services here?

Ren: When I was young, China's economy was developing very slowly, but young people at the time had high hopes and were in search for new opportunities. Serving in the military offered more opportunities than other jobs. We really wanted to join because we thought of it as an honor. Being part of the military meant that we were disciplined and working hard. The Cultural Revolution made the entire country a mess. There was a prevailing view that knowledge and education were useless, and the construction of infrastructure in China was stagnated. No one wanted to work in hardship regions to support some key projects, like a major synthetic fiber factory that introduced foreign technologies. That was why the country commissioned the military to get the project up and running. I was a member of the project. By being part of it, we had access to some of the most advanced equipment and

technologies from France during the Cultural Revolution. The synthetic fiber production equipment was provided by Technip and Speichim. Life working on the project was tough, but I felt very lucky.

03 Damon Embling: You stayed in the Chinese army for nine years I think and then you spent a couple of years in the oil industry. Then, Huawei was born. Back then in the late 1980s, what was your vision for the company? Why did you want to set it up and what were you trying to achieve really?

Ren: When we were in the military, China still had a planned economy that didn't pursue profit or cost-effectiveness. We just needed to get our jobs done. But when we got disbanded from the military, China had started its reform and opening-up and was transitioning towards a commodity economy. We weren't accustomed to the commodity economy and had no clue what commodities were. You see how unfamiliar the market economy sounded to us. The country issued documents requesting a transition into the commodity economy, triggering a heated discussion among those at the top. This was because we had no idea what commodities were, not to mention how big of a change this was for our society. I had difficulty finding my way in this societal change. I was working in a state-owned company then

and suffered a setback. The company just let me go. To survive, I had this idea of starting my own business, but doing so meant a lot of risks, because it was likely that I'd fail. But there was no other choice. I could only move forward with the idea.

Damon Embling: You set up Huawei with a very limited amount of funds. It was around 3,000 US dollars, wasn't it? How did you manage to launch a company from that small pot of cash?

Ren: At that time, Chinese people were very poor. Startup companies like Huawei didn't have the money to really get up and running and were in a very tight spot. Registering a private tech company required five shareholders and around 3,000 US dollars in registered capital. I didn't have that much, so I had to raise it before I could register. After we registered, we barely had any cash left.

In the beginning, our company mainly worked as an agent selling equipment made by other companies, and we only paid the manufacturers after their equipment was sold. This model let us grow, but the development process was extremely difficult. My monthly salary was extremely low at the beginning, less than 100 US dollars, and I didn't even ask for the salary for the first few months.

Damon Embling: Given those challenges and difficulties that you faced starting the company, what

was your driving force? What kept you going? What was your vision?

Ren: To survive.

Damon Embling: Simple as that?

Ren: Yeah, it was as simple as that. I had to take responsibility for my kids' education and growth. In truth, I didn't take good care of my kids, but I had to earn enough money to feed them. I applied for several other jobs at the time, but they wouldn't hire me. I just wanted a job in the beginning, but no one would take me. There were two reasons for that. First, I had made some mistakes in a previous job, so they didn't trust me. Second, the technology I was trained in was not needed at the time, because society was in a period of speculative buying and selling. I had nowhere to go. At that time, China was beginning to allow for private tech companies, so on an impulse I started Huawei.

04

Damon Embling: Now, all these years on, since you started the company in the late 1980s, you have grown into a giant, a technology, a telecommunications, mobile communication company around the world... 188,000 employees. How would you explain your relatively rapid growth into the company that you are today? And now you've gone from those humble

beginnings that you described into one of China's super-rich.

Ren: We learned early on that the only way to survive is to respect our customers, which includes respecting their values and interests. Our customers will only pay us when we deliver high-quality products and superior services to them. At the time, we served our customers heart and soul, and we would rather take on hardships ourselves so that we could meet our customers' needs and respect their values. Through this, we gradually improved our brand image among customers, and our sales went up.

After our growth continued for a while, the manufacturers we represented thought we might dominate the market, so they stopped supplying us with equipment. So the situation we are currently facing is nothing new to us. That was when we knew we had to develop our own products in order to survive. We started by developing 40-line analog switches. Those seem extremely simple today, but back then, we were under a great deal of pressure to develop them. At that time, China had just started its reform and opening-up, and small hotels and shops needed small bits of equipment, which was an opportunity for us. By developing our own small equipment, we started to build the talent, capital, experience, and customer trust we needed. From there

we were able to grow step-by-step.

Throughout the whole process, we did not rush to spend our earnings on entertaining ourselves. Instead, we saved it, put everything we had into R&D, and devoted ourselves to serving our customers. That's how we gained their trust. Our customers still place enormous trust in us today. The US has frequently campaigned against us in Europe, who is their close ally, but our European customers have continued to buy our equipment despite all the pressure from the US. This is because we have been building trust with our customers over decades.

05

Damon Embling: We'll talk more about America, the United States, in a few moments. But I just want to talk to you a little bit more for now about how you grew and developed your company here in China. How difficult was it growing your type of business in China over those years? Because actually, on the face of it, you were going against the grain, weren't you?

Ren: At that time, 100% of China's communications equipment was supplied by Western vendors, mainly the big eight vendors from seven countries: Ericsson from Sweden, Nokia from Finland, Alcatel from France, Siemens from Germany, Lucent from the US, Nortel from Canada, and NEC and Fujitsu from Japan. However,

the switches supplied by these vendors were the larger ones used in cities. They were too large to meet the needs of rural areas. Additionally, the rural market just couldn't afford such large switches.

At the time, China's rural communications market was just starting out. That was where we came in and developed 40-line switches, which were later expanded to 100-line, 200-line, and 2,000-line switches. After that, we began developing larger program-controlled switches for towns and gradually expanded from there.

06 Damon Embling: Alongside those technical and logistical issues, what I really want to know is how you developed a company in China when actually, at one point, the Chinese state, the government, really didn't like you, did they? They wanted to close you down, didn't they?

Ren: Yes, the government didn't know us very well when we first started out, because we adopted the Employee Stock Ownership Plan, under which employees owned the company's capital. We might have been misunderstood as a capitalist company, which was not in line with socialism. But these misunderstandings began to disappear over 10 years ago, as we paid an increasing amount of tax to the government.

We now pay a total of 20 billion US dollars of tax to governments around the world every year, most of which goes to the Chinese government. The government has seen our contributions to society, as well as our integrity and legal compliance. That's how they have come to know us better and accept us. This was the first window of opportunity for us.

The second opportunity dates back to over two decades ago, when we first began doing business in Africa. Some African countries were embroiled in conflict at that time, so all Western companies had withdrawn from these countries and were no longer providing communications equipment to them. However, the equipment we sold in China's rural areas could also be used in Africa. By selling equipment to such countries, we managed to gain a strong foothold in many countries outside China and started to accumulate capital.

The success we achieved in countries outside China gave the Chinese government confidence in us: We didn't develop by taking advantage of the domestic market; we grew our business in countries outside China too. After we started operating in Europe, the Chinese government started believing we were performing well because we had managed to enter developed markets. This was how the government's misunderstandings

about Huawei were dispelled.

The third opportunity is that we encountered many coincidences after entering Europe. A young Russian employee had been working on an algorithm for over a decade, which integrated algorithms for 2G and 3G software. That meant that 2G and 3G could be integrated into one piece of equipment, saving half of the costs and reducing half of the weight. In reality it may have been less than that, but the costs and weight were still reduced by 30%–40%. What was most important about the algorithm was that it helped reduce the weight of equipment. This was especially important for Europe, because Europe didn't have many towers or utility poles on which to install network equipment. Previously, most equipment had been installed on the roofs of old houses. If the equipment was too heavy, it could cause the houses to collapse. So our equipment was very popular in Europe, and this was made possible by an algorithm that integrated 2G and 3G in our equipment. With this equipment, we quickly entered the European market.

This was how SingleRAN helped us establish a business presence in Europe. Later, we used that algorithm to integrate the algorithms of 2G, 3G, and 4G software. That meant that the same equipment could support 2G, 3G, and 4G, significantly boosting efficiency

and increasing profits. That provided us with more money which we invested in R&D.

In the past, there used to be several different communications standards for 3G around the world, such as Europe's WCDMA, the US's CDMA2000, and China's TD-SCDMA. This algorithm was able to integrate all communications standards into one piece of equipment. That meant that we could sell the same equipment to Europe, China, and other places around the world, better satisfying our customers' needs. This again enhanced the company's competitiveness and profitability.

By integrating different standards into one piece of equipment, we significantly decreased our costs while increasing our revenue. We didn't use this revenue for consumption, but continued to invest it into the future.

The fourth opportunity is that global communications have been developing for seven to eight decades. At each stage of development, governments tended to allocate one block of spectrum in one band at one time, and another block in another band the next time. Therefore, established carriers would often have over 10 blocks of spectrum, requiring over 10 corresponding antennas. Every antenna is made up of different electronic components, which increases its own weight and costs. We used this algorithm to integrate the 10-

plus antennas into one that could accommodate several standards, which is called multi-mode and multi-band technology. This is one of our unique technologies, pushing us to the forefront of the world stage. Our leadership didn't begin with 5G; we were already a leader in 4G. This technology allows us to lead the world in wireless communications. All of this success can be attributed to the mathematical algorithm developed by the Russian young man I mentioned earlier. He is now a scientist and Fellow at Huawei, who is only about 40.

Polar code is a key technology of 5G, originating from a mathematical paper published by Turkish Professor Erdal Arıkan over a decade ago. We discovered this paper two months later and dedicated several thousand people to analyze it and developed polar code.

We are now leading the world in 5G, which was actually the result of these two coincidences. Both turning points were related to basic theories.

The fifth opportunity, another coincidence, is also worth mentioning. Huawei was almost declining a few years ago because the market was becoming saturated. But thanks to the iPhone invented by Steve Jobs, the mobile Internet developed rapidly, enabling the telecoms equipment market to begin expanding. Carriers started purchasing more equipment, and we made more money, which helped us survive until today.

07

Damon Embling: Clearly there's been a big technological path, success for your company. Within China, obviously, you have a strong foothold in the business. How difficult and challenging has it been – before the latest US trade row – how difficult has it been to build your business overseas? Or, in your view, has it been fairly straightforward? Because countries have a view of China, and some have suspicions about China.

Ren: Before we were added to the Entity List on May 16, we didn't face many difficulties in developing overseas markets. Customers made their own decisions even if politicians held different views on Huawei. Customers can decide about us for themselves after using our products. The US politicians and state leaders have launched a campaign against Huawei across Europe, but our European customers continue buying our products. Despite the huge pressure from the big shots and their US ally, they are still buying our products. It proves that they recognize us for who we are.

Before May 16, customers were not facing the significant pressure that they are now. They chose to use our equipment after considering our technologies and services, as well as the benefits our products would bring.

Damon Embling: You say customers still support you and they make the choice. But ultimately if their

politicians, their governments are blocking Huawei, which has happened in some cases, how do you get beyond that?

Ren: If we can't overcome this opposition on a particular country, then we will give up on that country and probably the customers involved. We will only work with customers who want to work with us. We are not asking every customer or country to accept us. If all customers listened to politicians, would they make profits? It's not politicians but their customers who determine their fate. Customers always buy products that help them make profits, because this is the only way they can survive.

08

Damon Embling: Now, the US is embroiled in a trade row with China at the moment. You find yourselves in the middle of that, as Huawei. You have the US administration accusing Huawei of possibly using its networks, its telecommunications, and its technology to spy on other countries. Have you spied on any other countries? Have you spied on customers?

Ren: First, the US-China trade dispute has nothing to do with us. We barely had any sales in the US, and US cyber and information security has nothing to do with us. It is a fact that the US networks and information are not safe even though no Huawei technology is present in them.

Second, we have served three billion people in more than 170 countries and regions for over 30 years. We have a strong track record. If we were involved in any security issues, the US would have used them as evidence to convince Europe. History has proved that we haven't done anything they've accused us of, nor would we have any reason to do these things.

Third, what should we do in the future? An EU report states that Huawei's 5G technology is very advanced, but the EU also has concerns regarding risks caused by non-technical issues. Therefore, we are committed to complying with all applicable laws and regulations of the EU. We will make commitments to these governments about what we will and won't do, and be audited accordingly. This will help increase their trust in us. The UK has the most stringent oversight of Huawei. We trust the UK and Germany, so we are open to their checks. They also pay a lot of attention to our problems and provide us with constructive criticism. This process has further helped build trust. We are happy to make these commitments and submit ourselves to audits according to the EU's management requirements. We respect the EU's regulations, so we have opportunities there.

Damon Embling: So, can we just be clear then... You're saying that Huawei has never spied, never will spy, and has never been asked to spy?

Ren: Yes. We have never and will never spy.

Damon Embling: But it could be tempting, couldn't it? Because information and data, described as the new oil today.

Ren: We acknowledge the digital sovereignty of every country. Digital sovereignty lies with countries, not us. The data is of no value to us, so what's the point of us getting others' data? If we did this even once, the news would spread across the world. Customers would no longer buy our equipment and Huawei would go bankrupt. Then our employees would leave Huawei, leaving me to repay our debts. But would I still have the ability to repay then?

Damon Embling: But maybe you're hiding it?

Ren: Why would we do that? I don't think there's a good reason for it. It's unnecessary and unlikely. It's like selling a car. If I sell you a car, it's up to you what will be loaded into the car. Likewise, when we sell equipment to a carrier, it's the carrier that will operate the equipment. That carrier is subject to the oversight of its country. We can't even access the data [without permission], how can we possibly obtain the data? We can't access the data, and we don't need the data.

09

Damon Embling: Whether the US is right or wrong, Australia has barred Huawei, and the UK is still trying to make a decision over it. There are concerns in other parts of the world about the way Huawei operates. Rightly or wrongly, as I say, the US allegations, they're deeply damaging for you, aren't they?

Ren: I don't think the US allegations have hurt or affected us that much. In fact, the lobbying of so many US politicians around the world has had a positive impact on Huawei. Seeing such a powerful country attack Huawei, customers in many countries take that as a sign of Huawei's strength. And so, they are rushing to buy our equipment as they're afraid our equipment will sell out.

Since the US campaign against Huawei began, the number of customers visiting us has increased by 69%. They came and checked whether we could make our equipment without US components. Today you have visited our company and you have seen that we survive very well without US components. We have shipped the equipment to our customers and their test results show that our equipment works very well. Even without US components, we can continue to supply our customers. This has greatly boosted customer trust in us. The US has been doing amazing PR work for us, so no, I don't think the US campaign has created any obstacles for us.

Damon Embling: So you don't think there's a financial risk to your company and you really think the general public, the consumers, haven't lost trust in you?

Ren: First, there won't be any financial risks. In fact, we might be growing even faster. This is because the existing crisis and pressure have pushed our employees to work harder than before. They were getting complacent before the US campaign began, but now they are on their toes. As a result, our productivity has improved. This is the first reason – an internal reason.

There is also an external reason. Some customers choose not to buy from Huawei. That's understandable. But there are also many customers who continue to buy from us. That's because they see the unique advantages of our technology.

In a minute I want to give you a CD. It's a high-definition video that shows a performance marking the 70th anniversary of the founding of the People's Republic of China. It was broadcast over 5G. Although there were tens of thousands of people performing, there was no buffering. You work in the media, so you understand how advanced we are. We used our 5G base station, which is very compact. It actually fits in a backpack, and no wires are needed.

Projects like this have shown that we are well ahead of the competition, so we have plenty of opportunities.

We are not worried that some customers may not choose us. In fact, we are a bit concerned that we may be unable to meet our customer demand if too many customers buy from us. We may even have to ask our Chinese customers to buy less from us, because we want to supply our equipment to overseas customers first. It is more difficult for us there.

So I don't think we'll have financial difficulties. Customers may trust us more as time goes by. They can come and visit our base stations, or they can buy and install some. They will then realize that our equipment works very well even without US components.

Damon Embling: You say you're not overly concerned about what's going on right now, but, for example, when you launch your latest smartphone outside of China, maybe in Europe or elsewhere around the globe, and people for example don't have access to Google services because of what's going on with the US at the moment. Surely that's going to deter people buying that phone, isn't it? So that will harm your company.

Ren: Well, I think first of all, it won't cause much harm because we are on very friendly terms with Google and we have previously signed many agreements. Second, Huawei smartphones have a lot of unique features. Though users in some regions may be unable to use

Google services, they still love the other features of our smartphones. We estimate that our consumer business will sell more than 240 million units this year. So there will still be rapid growth. I don't think the overall impact will be larger than 10 billion US dollars. In fact, this is not a big number to us, so I don't think a 10-billion-US-dollar decrease in our forecasted sales revenue will be a big problem. When it comes to the ecosystem, we are confident that it will only take us two to three years to overcome that difficulty.

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Damon Embling: I want to talk more about the US trade blacklist. You find yourself on this US trade blacklist, effectively locking you out of the US. How have you tried to engage with the US administration about this?

Ren: First, we haven't negotiated with the US government. We chose to file a lawsuit against the US government in court. I think we should let the courts solve this problem based on the evidence.

Second, I don't expect the US to remove Huawei from the Entity List, even if a new administration is in power. We need to adapt so we can endure pressure from the US for a long time to come. We must mentally prepare ourselves for that. But ultimately, it will be US companies that suffer most. Huawei provides services to

three billion people in 170 countries and regions. If US companies are not allowed to supply to us, they will lose many markets, especially the Chinese market. This is not in their best interests.

Damon Embling: It seems that you're being quite stubborn. I mean the US does have a lot of influence around the world. Surely you should be trying to talk to Donald Trump. What would you say to him if you could?

Ren: I haven't had any opportunity to talk with him. He's very busy.

Damon Embling: But if you did, what would you say to him?

Ren: If I did have the opportunity, I would ask him not to let US companies lose their foothold in the Chinese market. I would also say that the US will only see its companies performing better and benefitting from globalization when they can expand into the Chinese market.

I really don't understand why the US is unwilling to sell its high-quality products to China. What's the point? If you have good apples, you should sell those apples to whoever wants them and earn money from that. If you just keep the apples in your warehouse, they rot and then nobody wants them anymore.

The US government needs to think about the interests of its own companies and make sure they don't lose the Chinese market. Globalization is good for the US. If the US gave up on globalization, it would give Europe a huge opportunity.

11

Damon Embling: In the wider trade war between China and the US that's going on, obviously, there are ongoing talks around that. How do you think it got to this stage, this much wider trade war, with your issue alongside that? How did it get to this and how much hope do you have that the whole thing can be resolved? What needs to happen in your view?

Ren: I don't care what the dispute is about or how the negotiations have played out. After all, we sell almost nothing in the US. If the negotiations end well, we still won't be selling in the US. If the negotiations break down, we don't stand to lose much. So why would we care about the negotiations? This is something that should be settled between the two governments. I'm only concerned about the relationships between Huawei and US companies and our relationships with customers around the world.

Damon Embling: But it's part of a wider spat, isn't it? You are part of it.

Ren: It won't work. If China buys more soybeans from

the US, will the US sell more chips to us? It doesn't work that way. With less soybeans, we can make do by consuming less oil. It's not a matter of life or death for the country. I don't think there will be a big problem.

12 Damon Embling: The difficulties you face with the US right now, the challenges, they've extended sort of personally to your family with your daughter Meng in Canada. The US issued an arrest warrant over suspicions she was covering up links with a company that was apparently supplying Huawei equipment to Iran. Apparently, it was in breach of sanctions that are in place. How is your daughter? And how much is that worrying you right now?

Ren: We believe that the legal system in Canada is fair, just, and transparent. Evidence speaks for itself. We trust the judiciary system in Canada. We have no other thoughts apart from that.

Damon Embling: Is she innocent?

Ren: Of course.

Damon Embling: But you said that she might do jail time and she might study while she's in jail. You think she's going to go to jail?

Ren: I didn't say she would study in jail. I said she has been studying while under partial house arrest.

Damon Embling: How is she? How much do you worry about her as a family?

Ren: She is out on bail and remains under partial house arrest. She has filled up her schedule. She goes out and talks with all sorts of people in Canada to show who she really is. She is living a comparatively normal life.

13 Damon Embling: With that, and with the US trade blacklist, you really don't feel the house of Huawei is collapsing?

Ren: I think that Huawei might develop even faster. Over the past 30 years, our employees have worked really hard, and the lives of most of them have improved significantly. Naturally though, people tend to want a comfortable life, rather than working hard. This attack from the US has given us a sense of crisis that inspires our employees to be even more dedicated. Our sales revenue was supposed to be hurt by this attack, but instead it is still growing. Because of this, the house of Huawei will not collapse. As you can see, our production in all regions is still on track, our employees still come to work and go back home as usual, and our canteens are packed with employees at meal times. There has been no change to their salaries. I do worry that the company's profits may actually grow too fast because our employees work so hard. How do we deal with

these profits? This is an actual problem we face. We are not experiencing a decline in business but instead are seeing rapidly growing profits. We will have to further increase our strategic investment in the future.

Damon Embling: How important are your staff to Huawei? I mean we know that the vast majority of the shares are owned by the staff. How important is that, in the running of your company, do you think, and the performance of your company?

Ren: I think holding shares has little to do with the dedication of our employees. They are dedicated to their work because they have a sense of mission. They aren't just driven by economic benefits. We implemented the Employee Stock Ownership Plan so that our employees could continue to share in the value they created in the past. The kind of value isn't just reflected in their bonuses. Their previous work continues to create value for years after their initial contribution was made. Holding shares enables employees to get returns on that, and share holding is used as a way to make sure employees are reasonably compensated. Their dedication comes from their sense of mission rather than these economic benefits. Our sense of mission has not been weakened by these attacks, but instead strengthened.

Damon Embling: What kind of boss are you?

Ren: I don't have any special skills. I don't know much

about finance, management, or technology. I actually don't know much in terms of the specifics. Instead, we have many competent and capable experts and managers who run the company.

Damon Embling: It's very surprising you say that, given the growth of the company?

Ren: There are objective factors behind this year's growth. In the first half of the year, our growth was not affected by attacks from the US, and we maintained stable growth before we were added to the Entity List on May 16. Since then, we have been proactively patching up our holes, and we've quickly fixed most of them. This has enabled us to maintain reasonable growth despite some slowdown.

We were not affected by the US Entity List in the first half of this year, but we have been feeling the hit in the second half. Next year, we will feel it throughout the year, but we expect our business to maintain good momentum. You are welcome to visit us at the end of next year.

We have seen a huge increase in our total number of employees, and now employ nearly 194,000 people. This is because we have brought in many brilliant minds to patch up the holes caused by the US. We are fully confident in our performance next year. You are welcome to visit us at the end of next year again to see

how we are doing.

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Damon Embling: And as you look to the future, obviously 5G is a big part of your business. It's clear from what I've seen on my tour of your headquarters here. But also obviously for a lot of technology companies, 5G is big. Is it a game-changer in your view, 5G? How is it going to change our lives?

Ren: 5G will be like highways, whereas previous generations of communications technology are normal roads. Cars can run on both, but they can go faster on highways. 5G offers high bandwidth and low latency, and can create a pivotal foundation for the information society and AI. 5G does not directly create value for society, but the information systems that it supports will play a critical role in promoting social progress.

Damon Embling: So what kind of things, for people watching this, how will 5G change their lives because 5G will facilitate all types of new technologies that cross right across our lives, won't they, public services, the way we get around, health even?

Ren: I'll give you a slightly abstract example to show what kind of value 5G can bring to our lives. An Airbus A320 has signaling cables that weigh about 17 tons. If wireless networks, rather than cables, were used to connect various types of equipment in the airplane,

the airplane would be far lighter and need far less fuel. In addition, flight conditions would be improved. That would create tremendous value. We even nicknamed that particular wireless network project our Airbus A320 project.

In the past, a well-off family would also need many cables to support broadband connections in every corner of their house. But now, a small wireless box can make all of this a reality. This is the simplest example of how 5G could affect our lives.

We can also install small base stations in certain types of industrial machines, which can connect to other machines. This can provide real-time, autonomous connections to the systems that control all the machines.

5G's low latency can support autonomous driving, optimization of industrial automation, and other similar applications. Ultimately though, how 5G will change our lives is something we can't fully imagine at the moment. What I am describing now is just the initial impact.

I'd like to give you another example about remotely operated machines. You are media professionals, so you must be familiar with latency. If you operate machines several thousand kilometers away, this latency can cause operational mistakes. Latency in 5G networks can be kept lower than one millisecond, so it can support remote machine operations in real time. These

applications will bring tremendous changes to humanity. But right now, this is just a vision.

How can we tap into the potential of 5G and create more value? This will require the concerted efforts of tens of millions of companies working together, not just us. At Huawei, we just provide a platform that is like fertile soil, and it's up to innovative companies to decide what crops they want to grow in this soil.

Damon Embling: Because that's the risk, isn't it? Because 5G and all the things it will enable will generate a lot more data, a lot more information. But the challenge is really using that data in a safe, secure way that actually does change lives, right?

Ren: A new thing will never be purely good or bad. Everything has its pros and cons. The correct way to deal with a new thing is to better leverage its benefits, while controlling and mitigating its negative impacts. Nothing is inherently perfect.

Damon Embling: The European Union very recently published a report about cyber security and 5G and this report concluded there could be an increased exposure to attacks because of 5G and they were saying attacks could come from non-EU states and state-backed actions... The European Union is clearly worried about security in 5G, while also they want to grasp 5G, they realise the potential... How risky is 5G

in reality?

Ren: How risky is driving a car? You may get into an accident if you drive too fast. But if you drive a car responsibly, it can take you to many beautiful places. It's the same for 5G. Nothing is purely good or bad. The key lies in management.

The EU understands that 5G will bring a lot of benefits, as well as risks. The best approach is to manage and control those risks, rather than rejecting it.

15 **Damon Embling: In the EU, privacy is a big issue. We have new regulations protecting data in the European Union. People do worry about how information and data about them is being used. At the same time, there have been concerns about states meddling in other states' affairs through using the Internet, social media, and what you have. There are some serious concerns in Europe right now. So, you as a big giant of this industry, Huawei, what are you saying to the European Union to actually reassure us, the consumers?**

Ren: I can understand those concerns. I'm also concerned as I don't know whether someone from the US is tapping my phone calls every day. Huawei is trying to reassure Europeans by complying with the EU's cyber security management regulations, the General Data

Protection Regulation (GDPR), and all other EU laws and regulations. But of course, the European people will need some time to verify our compliance before they truly feel reassured. So for now, all we can do is to promise that we will strictly abide by all applicable EU regulations and support the EU's digital sovereignty. We will never waver from this principle.

Damon Embling: As 5G begins to be rolled out in the European Union over the coming months and coming years and the EU really positions itself about how it's going to use 5G and all the safeguards that go around that, what kind of relationship do you want to have with the European Union with 5G and other future digital technologies?

Ren: First, Huawei respects and supports the EU's digital sovereignty. Without in any way encroaching on that, we will work our best to provide Europe with AI-based technologies, intelligent computing systems under Arm architectures, the Atlas deep learning platform, etc. We will offer innovative open-source platforms and resources for European SMEs, and help the EU or European countries establish their own digital ecosystems. In this way, we will achieve shared success.

Second, we will also invest in and support the growth of European SMEs, and offer guidance where we can. This kind of cooperation will lead to shared success

for all. To compare a tech ecosystem to soil, we aim to provide fertile soil in Europe, and then European companies can plant crops on it. In other words, we will work hard to help European countries build their digital ecosystems step by step.

Damon Embling: Amid all the difficulties the European Union has been facing recently, it's having a bit of an identity crisis to be honest. There are a lot of deep political divisions that have been going on. From your perspective, looking in at the European Union, and all that has been going on of late, how difficult a market is it now to crack when countries aren't necessarily agreeing with each other very much?

Ren: It won't be too difficult. What's important for Huawei is doing what we do well and gaining customer trust. We will never engage in [political] conflicts or take sides in politics. When we do our job well, it's not difficult for us to crack the market.

16 Damon Embling: Of course, one of the big political earthquakes in the European Union has been Brexit, Britain leaving the European Union. How do you see the future of China's relationship with Britain if and when Brexit happens? From a business perspective, what would you like to see in terms of a future trade, business, economic relationship with Britain?

Ren: No matter whether they exit or not, the UK has to work harder in order to become stronger. They have to rely on their own strength, because the impact of the external environment isn't as big as some people have thought.

Global trade is important for every country in the world. China will need to buy more airplanes from Europe than from anywhere else, and to meet this demand, Europe needs to ramp up production. China's growing demand for European products like machinery and cars is a great opportunity for European countries, especially the UK, so these countries should work harder to seize these opportunities. Government relationships are about building an environment. The macro environment has an impact on trade between countries, but this impact is not that large.

Damon Embling: And do you worry, as big telecoms company that it could affect you? Or do you think Brexit could bring a company like yours new opportunities as well?

Ren: I don't think Brexit will affect Huawei at all. Our presence in a market is determined by its population. Everyone needs telecom services, and if there aren't any changes in the population, then Brexit won't have an impact on us. The Brexit decision was made by British people themselves. For Huawei, we only need to adapt

to the situation and do what we do well.

17 Damon Embling: Closer to home, there's obviously been the ongoing unrest in Hong Kong. From a business perspective, how worrying is the instability in Hong Kong for your business and for this region, do you think?

Ren: The impact of Hong Kong on China's mainland and the world is not that big. Hong Kong is capitalist, while China's mainland is socialist, so what's happening in Hong Kong will not affect politics in China's mainland.

People in Hong Kong have freedom of speech and the right to demonstrate lawfully, but demonstrators shouldn't vandalize others' property, private or public. Vandalism is counter-productive. People who are neutral will distance themselves from these demonstrators. And if the demonstrators keep starting riots, they will ultimately be isolated from the rest of society.

In my opinion, demonstrators should use words to peacefully express their opinions, which is an important aspect of capitalist democracy. No country in the world will ever support vandalism.

18 Damon Embling: I want to look to the future now... You're 75 and still running the company as the CEO.

How do you see the future of Huawei? Where do you want it to go over the coming years? And how are you going to achieve that?

Ren: In truth, I haven't gotten involved in any of the company's specific operations for many years. I simply have the veto right. I've never exercised this right, but the company has been running on the right track. This has little to do with my age.

Now I have time on my hands, and I'm in good health. So our public relations department asked me to work for them and meet with journalists. I didn't meet with journalists in the past, but now I have more time to do this. Huawei's fate doesn't rely on me personally, so there is no need to worry about the company's continued development.

Damon Embling: You say the fate of the company doesn't rely on you. But with the fate of the company – some would say – in question right now, what would you say to those critics that say Huawei is meddled in by the Chinese government – it's carrying out espionage, spying; it's not a company we should trust? What do you say to those critics?

Ren: I don't want to say anything to them. The facts will determine whether those critics are right.

Damon Embling: As I said, you're 75 years old now,

you're still running the company. Although I think you play that down quite a lot in terms of your involvement. But clearly you've been at the helm for many years now and have been behind a lot of the company's success. Where do you personally go from here? When are you going to finally throw that hat on the floor and say, "Okay, it's enough now"?

Ren: First, my authority is limited within the company. It's not that I have the authority to do whatever I want. Second, Huawei has a democratic, collective decision-making system, which means I'm bound by collective decisions and vetoes. It may look like I'm here working every day, and while I'm an employee, I don't have any specific operational responsibilities. I just have the veto right, but I've never used it.

Anyone could fill this "figure head" role the same way I do in the future. As long as an executive is willing to take this position, they will also become a "figure head". Because I've been in this position all along, it might seem that we haven't had any personnel changes for 30 years. In fact, our personnel change all the time. My presence or absence doesn't affect the actual operations of this company.

Damon Embling: You still haven't responded directly to my question regarding when you are going to retire.

Ren: First, when I become slow in thinking. Second,

when the US government approves my retirement. Huawei is now in a state of crisis, so sometimes I need to act as a figure head and come out to meet with journalists.

Damon Embling: Would you describe yourself as a workaholic, since you put your life into growing this company? You have said that you didn't see much of your children. You have been through a divorce. Do you think all the success in your life has come at the cost of your family? Do you look back now with any regrets?

Ren: I do have some regrets. During the company's early days, I used to go on long business trips in Africa and Latin America, staying there for several months. When I returned home, I often stayed for just a couple of days and then went out on business trips again. To survive, I didn't have much time to stay with my wife, and I often forgot to buy gifts for my wife and little daughter.

One time I did buy a gift for my little daughter, but she said she wouldn't accept my gift next time if I didn't buy one for her mother as well. That reminded me that I wasn't taking full responsibility for my family. There are many things I could make it up to my current family. However, I didn't take good care of my parents and I couldn't make it up to them, as they are no longer with us. This is a great regret for me. Everyone has regrets, because no one lives a perfect life. But it's of no use to

feel sorry. What we should do is to move forward.

If the company encounters greater frustrations or even collapses, the regrets will be greater than any of my other regrets. Today, all of us at Huawei are working hard to row this big boat of the company. Even though I am old and no longer strong, I will do my part.

When I was young, I played a lot of sports casually, but I was never a good athlete in any of them, even at a lower level. I was just a little short of the standards. That was a regret. Now I don't play sports anymore, so my physical condition will weaken. I will handle my retirement wisely. Please be assured that I will not dedicate my whole life to Huawei, and I have never considered that. I will leave myself some time to travel and relax.

Damon Embling: Who would you like to replace you, because you have said you don't think your children have the right qualities to lead Huawei? Who would you like to see take your position?

Ren: Later on, I would ask our PR staff to give you a copy of my speech to the company's fourth Representatives' Commission. In this speech, I spoke about our systematic successions. Actually, we completed our succession a long time ago, not recently. The company has been operating smoothly. I am just a figure head in the middle. Please don't worry about this issue.

Damon Embling: But you won't keep the company in your family?

Ren: My family don't share enough of the company's benefits. Why should we shoulder this big responsibility? In the future, there will be someone who can take on this responsibility, depending on their wisdom, capabilities, and virtue. This has nothing to do with my family.



Ren Zhengfei's Interview with The Wall Street Journal

November 5, 2019 Shenzhen, China

01

Matt Murray, Editor in Chief, *The Wall Street Journal*: Mr. Ren, thank you. It's a real pleasure to be here and thank you so much for inviting us to visit you here to ask a few questions. We're very grateful. So, we just toured your European campus and saw your Russian corridors. It's a grand series of buildings you've constructed. Is there a message in this about the power of Huawei at this point in time? Or the power of China as a corporate presence at this time? It's hard for me as an American not to feel that, coming in here, this grand space and all the things you wanted us to see, is there some message in it?

Ren: To start with, I want to say thank you for this interview. Please feel free to ask me the most challenging questions you have. I will try and be very direct in my answers.

Both the Xi Liu Bei Po Cun on our Songshan Lake campus and the exhibition hall in the Jijia Center were designed by Japanese architects. Each of our product lines has an exhibition hall like this, usually in the basement. After customers tour the halls, we invite them upstairs for a coffee and a chat. These two halls were designed for big meetings. So my point is, all these artistic designs came from these architects. They have nothing to do with the culture that we want to disseminate.

We are also building another new R&D campus in Qingpu, Shanghai that is about 430 acres across. Five world-renowned Western architecture companies are participating in its design. They have come up with a modern but classical design that references the views along Chicago's waterfront. Of course, this design will be influenced by old Shanghai glamor. When it's ready, scientists from outside China will be sent there to get to work. The designs of these buildings have a lot to do with the taste of architects and their bids and nothing to do with Huawei's culture.

Matt Murray: While your employee was guiding us down one corridor to the exhibition hall, they said that it was the "Trump Corridor". So no message in the corridor?

Ren: No. But it's very beautiful. Those paintings are the works by over 150 famous Russian artists. Due to US sanctions, they are living a difficult life. They came to paint for us because of the economic difficulties in their country. Otherwise, it was unlikely that they would have come to do this work for us. When they were having a coffee here, they joked that this corridor could be called the "Trump Corridor". They said that we should thank Trump, because even the Kremlin doesn't have such a beautiful corridor.

Matt Murray: Do you think President Trump would

ever come to see this corridor? Can you imagine him coming here and seeing it?

Ren: I would really like to have him here. If it's not convenient for him when he's still in office, he's also welcome to come later. We will certainly give him a warm welcome. Many years ago, President Carter visited Huawei after he left office. We will also show our warmest welcome to US congresspersons, other senior government officials, and journalists. The US is a great and innovative nation.

02

Matt Murray: Let me ask about the US. Long before President Trump, or even President Obama, there have been difficulties with Huawei in the US, under both administrations. What do you think is the root cause of the long history of complications between the US government and Huawei?

Ren: In essence, I don't think there has been confrontation between the US government and Huawei. Our company has always had great admiration for the US. We have learned a lot from its culture and management.

Since Huawei was founded, the sleepless spirit of Silicon Valley has been engraved in the hearts of all our employees. We've been working so hard to learn from the US. Many startups in Silicon Valley were started in garages. Huawei didn't even have one of those.

We started in a shabby apartment and have become what we are today by taking one step at a time. The experiences of US companies are good examples for us to keep in mind.

Over the past 20-plus years, we have invited dozens of American consulting firms, to advise us on our management. They have a clear big picture of our organizational structure and processes, which are suffused with American culture. KPMG has also audited us annually for over 10 years. If you want to know about our financial position, just check the reports for the past 10-plus years stored at KPMG.

We have been through so much over the past three decades and are used to difficulties. So I never saw being under the Obama administration as a hardship. For us, the Trump administration is also just a motivator that has forced us out of our complacency. To stay afloat, we need to row intensely. Our hard efforts have driven up revenue and profits. If we have higher profits at the end of the year, despite the fact that we are being targeted, I am worried about how the world will perceive us. Thanks to our employees' increased efforts, we are seeing much better results. So I don't feel like there is a true confrontation with the US.

03

Matt Murray: Let me try again, how do you explain American hostility then? And for all you have been done, is there more in hindsight that you might have done or should have done given how the US government now seems to view Huawei?

Ren: I think their hostility is largely because they do not know enough about Huawei. Many big US companies started small. Companies like Amazon, Google, and Facebook were founded after us but grew faster. We were a bit conservative, so we have not grown as fast as them and need more time to grow.

If we look at the history of US companies, they have adopted an excellent approach that combines business model innovation with technological innovation, meaning they have a global business plan even before their products are fully developed. However, Huawei was not as visionary. We started in rural areas, and our horizons were not as broad as US companies'. We started with technological innovation, and our R&D staff were extremely confident in themselves. We only started developing our business model once our products were there. As a result, our growth has been slower than US companies' and that's why we do not have real business leaders within Huawei, even today.

We are still focusing on technological innovation, and we often don't know how to sell products even one or

two years after they are developed. So we still have a lot to learn. We still develop products first, and then think about how to sell them.

04 Matt Murray: But you are now in more than 170 countries and regions, you are a leading supplier in most of those countries and regions, and you're ahead on 5G as we've seen. Do you threaten the US because of your success? What do you think?

Ren: I didn't think the US would feel threatened by this. They are very strong when it comes to scientific and technological innovation. We published an article yesterday outlining the inventions made by the US over the last 100 years and commending the US as a great country. You could go to our internal messaging board, Xinsheng Community, to have a look.

The US has a very strong mechanism for technological innovation, and I don't think they will be stressed about lagging behind in a certain technology for a short while. I saw the remarks Commerce Secretary Ross recently made in India. He said the US can catch up with and overtake Huawei in three years. I believe it's totally possible.

The US has made the wrong call on 5G. They went directly for 6G because they thought it had higher bandwidth and would be more valuable. They went

for high-frequency bands for millimeter waves. They had not thought that 5G would come so quickly, and instead thought that they had enough time to make breakthroughs on the theories and technologies that address the short coverage distances for 6G. But 5G was commercialized in less than 10 years.

Huawei chose intermediate-frequency bands. This was actually also a bet for us. Most countries did not choose intermediate-frequency bands at the time, and instead went for high-frequency bands because they didn't think 5G could be commercialized so quickly.

They didn't realize the mathematical paper from Turkish professor Erdal Arıkan would mean that 5G could create an industry in less than 10 years. They thought that they could make breakthroughs with 6G if the development of 5G was slower. When more transmission distance theories are developed and technological innovations are made, 6G will definitely be superior.

However, these theoretical and technological breakthroughs have yet to be made, so 6G just means higher bandwidth. But since transmission distance is very short, commercialization is still not possible. All the while, a wide rollout of 5G has started around the world.

So I don't think the US has lost to Huawei. They just made the wrong bet in the first place. Huawei

bet on centimeter wave technology while the US bet on millimeter wave. If the US changes their direction, I believe they could soon catch up with Huawei, and I don't think they would attack us simply because we pulled ahead for a bit.

05

Dan Strumpf, Reporter, *The Wall Street Journal*:

Thanks a lot, Mr. Ren, for meeting with us again. We really appreciate your time. On the topic of the US and Huawei and your long history of both cooperation and confrontation, you've talked, quite a number of times this year, about the idea of selling the licenses of your 5G technology to a Western, but specifically an American company. Could you give us an idea of how that process is going? Have you had any interest from any American buyers? Have you hired any investment banks or intermediaries to help you try to sell that technology? Where do you see this process going?

Ren: First, we are completely sincere in our offer to license our 5G technology to the US and are not playing tricks. Why do we want US companies to become stronger? Because the world will be more balanced with three 5G "super powers". If the US lacked 5G, we would face longstanding difficulties and Europe would also find itself in trouble. Therefore, we really hope to license all of our 5G to the US. We will give the US whatever it

wants and will not withhold anything. After licensing, we can move forward side by side with the US, and I believe we can still outrun others. This is our motivation and purpose for licensing 5G.

Second, the US cannot bypass 5G and jump directly to 6G. Every step counts in the communications sector. If one leapfrogs one step, they may encounter huge problems down the road. It would take a long time to develop technologies from scratch. The US has a lot of money, and the biggest challenge for Huawei is that we lack money. If the US gives us money to obtain our 5G license, we can use that money to fund our research and development of 5G and other new technologies and make bolder steps forward. And the US can use our technology to grow faster because they have already established a huge foundation of science and technology. We can then pursue peaceful development and competition.

No US companies have approached us yet. Once there is a need from a US company, we will ask investment banks to help with our deal.

Matt Murray: They can call you, right?

Ren: Yes, but they haven't yet. Perhaps they are afraid too? Afraid of being suspected if they engage with us?

Dan Strumpf: I would just follow up and ask, why do you think no companies have come forth to take you

up on this offer? Huawei is widely seen as the most advanced company offering 5G technology. It seems like an opportunity that companies should at least express they are interested in, but it sounds like no one is coming forward at all?

Ren: I don't know why either. They may be afraid of political suspicions if they engage with Huawei. Or perhaps they don't want to enter this market, so they don't necessarily have this need. We cannot proactively reach out to US companies because the Entity List prevents us from doing so.

06

Matt Murray: I have to ask, actually, as you know, throughout the history of Huawei, there have been allegations of theft from big companies, from individuals, from Cisco to CNEX. We wrote about it this year, as you probably know. Why have they been so persistent over so many years? And have there ever been any challenges at the company, even in the past, that have been addressed about theft?

Ren: Allegations are not necessarily facts. Trump has received more allegations than us. We have always respected the intellectual property (IP) of third parties. Although many large US companies pay large sums in IP royalties to us every year, we pay more to the US. If we deduct the amount of IP royalties that we receive

from the amount that we pay, we have still paid more than six billion US dollars of IP royalties to the US over the years. In addition, Huawei invests about 15 to 20 billion US dollars in research and development each year, and we have over 80,000 R&D staff. We are not a world leader because of stealing. A good person can still face criticisms. We still believe in decisions made by the US courts.

07

Eva Dou, Reporter, *The Wall Street Journal*: We recently went to your hometown in Guizhou, and we wanted to know more about your background and your experiences. My parents are from Jinan, Shandong. They lived near the Baotu Spring.

Ren: The place where I grew up was rather closed off, and had little impact on my growth. I was a little naughty when I was a child, and grew up free of many restraints. It was impossible for me to develop high aspirations for the latter half of my life in such a closed-off environment. And I had access to a library only after I was admitted to university, so I read extensively, like it was a hunger. That didn't have a big impact on my life either. Because the political background for my family was not good, there weren't great prospects for me. It was already good that I didn't develop pessimistic sentiments.

In the late 1970s, my old army unit was stationed on Yaotou Road in Jinan's suburbs, near Shandong Normal University. I feel like Jinan is partially my hometown as well.

Eva Dou: At that time, many people were in the army. Many members of my family joined the army as well. I was reading some articles you wrote when I saw the name Jinan. You were with Troop 00229 in Jinan from 1979 to 1984. Could you describe your work there? That experience wasn't talked about too much in your official biography. You were born in 1944 but the details after that are a little vague, and there are many years you have not written about in detail.

Ren: After the construction of the Liao Yang Chemical Fiber Factory was finished, the Chinese government decided to initiate 10 big projects, and we were assigned to the construction of the Yi Zheng Chemical Fiber Factory. However, before our transfer went through, that project was terminated due to some political criticism from the central government surrounding these 10 big projects, so I stayed in Jinan. I was then appointed to be the deputy director of a construction research institute, leading a team of just over 20 people. We were responsible for researching machines used in construction.

Eva Dou: It seems that the research institute mainly

focused on developing pressure balances.

Ren: I had used my background in mathematics to invent an apparatus for automatic chemical control systems in Liaoyang. While at that institute, I was allowed to continue my previous research, because I was a celebrity then and a heroic benchmark. That was why I could do some research irrelevant to my military unit. Unfortunately, my research proved to be unsuccessful.

When I was younger, I had received a high level of recognition from the government, so I became very ambitious and set even higher goals that were beyond my reach at the time. I was determined to achieve those goals and often worked overtime. However, the results of my research in later years were not satisfactory. That happened around the time when the government decided to downsize the army, so our project ended and I was forced to transfer to a civilian job. That project had lasted five years, and we hadn't created anything useful in that period. At that time, the computer in Shandong University was only 16 KB of memory, which wasn't enough for proper calculations. So we had to give up in the end. Looking back, I'd say we had wasted those years.

Eva Dou: My father studied in Shandong University at that time.

Ren: We were not far from each other. Our unit was

stationed nearby in Yaotou, near Shandong Normal University. My kids were enrolled in the Majiagou Primary School nearby.

Eva Dou: Didn't you start your career at the Guizhou 011 army base? What did you do there?

Ren: Yes. I worked in a construction company at the 011 army base, where I was involved in factory construction.

Eva Dou: But you were an engineer, right?

Ren: I wasn't even a technician at that time. I was an intellectual, one of the "Nine Black Categories", so I had to undergo re-education. I was first a cook for two years. Then I was a worker for several years and was only transferred to Northeast China in 1974. After I had been with the army for a while, I became a technician. It was only after the Gang of Four was taken down that I finally became an engineer.

Eva Dou: Guizhou is close to Vietnam which was at war with the US back then. Guizhou was also developing military communications infrastructure at that time, wasn't it? Were you involved in that?

Ren: What I did back then had nothing to do with communications. I was just an ordinary construction worker, just like today's migrant workers in cities. After I moved to the military in Northeast China, I worked in the Liao Yang Chemical Fiber Factory where I was

responsible for building automation control systems. It was about simulation control systems, or proportional-integral-derivative (PID) controllers. This had nothing to do with either today's communications technology or computer science. I taught myself automation and control when I was a cook. This turned out to be a useful skill when I moved to Northeast China, because I understood it better than anyone else there. I didn't enter the communications industry until I started my own business in Shenzhen.

08

Matt Murray: You talked about five years wasted and different jobs. How did you get from there to founding Huawei, and how did you find investors to back you and start the company based on the record you started?

Ren: China downsized its military on a large scale, leaving a lot of us feeling completely out of step with the times. The country was undergoing a fundamental change in its economic system, moving from a planned economy to a market economy. We had no idea what that transition meant, and we just came to Shenzhen. We knew nothing about the market economy, either. The monthly pay for jobs at the regimental-commander level was over 200 yuan, which I thought was a decent pay. Then I found out that the average salary for

ordinary workers in Shenzhen was more than 500 yuan. So, we asked for compensation from the government for the demobilization without needing to retain the political and economic benefits. The compensation was about 1,800 yuan for each, and my ex-wife and I got more than 3,000 yuan in total. I then worked in a state-owned enterprise (SOE) in Shenzhen. I didn't know much about how SOEs worked and I didn't do a good job there. I made some mistakes, so I had to leave.

I was then left with two options: going abroad or staying in China. My family didn't want to go abroad, so we stayed. This was in 1987, around the time when the Shenzhen government published a document (Doc. No. 1987 [18]) allowing private tech companies to be established. So, I took the risky move to establish a private tech company. You had to have 20,000 yuan in registered capital and at least five shareholders to start a company. So I raised 21,000 yuan with five other investors and founded the company. Though there were six of us, I was the one who actually started the company. Later, the other five investors decided to withdraw from the company and we ended up going to court to settle this. In the end, they all withdrew with a lot of money in compensation. At that point, the company was wholly owned by me, so I had the freedom to distribute the shares to our employees. That's how the employee ownership structure we have

today came about.

If I hadn't distributed shares to employees, Huawei might have remained a small company and might not even have survived this long. Maybe then I would have tried my luck with other sectors such as real estate. We'll never know. Maybe real estate would have been the best choice. I shouldn't have set foot in communications business. It takes a lot of hard work and is not actually that lucrative.

We still have the court rulings pertaining to the withdrawal of the five other investors. They're in the shareholder registry room. You can take a look at the original file if you're interested.

Dan Strumpf: Just a follow-up question on that, Mr. Ren. How did you know the five individuals that helped you found Huawei? We've seen their names in your shareholder registry room. They seem to have very diverse backgrounds. How did you come to know them? Are they old friends of yours? Old friends from the military? Who are they?

Ren: No. I hadn't known them before I came to Shenzhen. And actually, when I founded Huawei, I wasn't thinking about company ownership or the future of the company. To start the company, I had to raise a certain amount of capital and bring together a certain number of investors. These five people have never worked a

single day at Huawei. If I'd had a closer relationship with them, maybe they wouldn't have cashed out so early; they might have come to work at Huawei.

In Huawei's first 10-plus years, we went through thick and thin. We were like a candle that was about to be blown out. Every day, we were struggling to survive through crises. Most people had no confidence in our company, but there was no turning back for me. I had to move on, full of confidence.

Some people, who seemed unwise to some, chose to stick with us. They believed what I told them would become a reality some day. We worked together towards that vision, and in the end it really became a reality. Today many of our employees are very rich. The reason is not that they were speculative, but that they were just not wise enough and chose not to leave.

09

Dan Strumpf: Mr. Ren, I wanted to ask you about a later time at Huawei but still in its earlier days. In 1992, you took a long cross-country road trip in the US, starting in New York, and I believe, ending in Silicon Valley with American companies at that time. Tell us what you learned from that trip. Why did you take that trip, and who organized it? And do you feel the US is a different place today than it was then?

Ren: A Boston-based company named CP, which sold

power modules, invited us to visit them. We wanted to buy their power modules.

We were curious because we didn't know what the US was like. We'd thought things were very expensive there, so we took a lot of cash in US dollars with us. You couldn't get credit cards in China at the time. After we arrived, however, it turned out things were very cheap and we didn't understand why. Cash started to feel like a bit of a burden.

Funny story. One guy in our team offered to take care of our cash, so we gave most of it to him, but later he complained that his pockets were weighing him down and begged us to spend the money. So our first impression of the US was that everything was surprisingly cheap.

While we were taking a Greyhound bus, we marveled at how beautiful the bus was. While the bus was running fast on the expressway, we were thinking that China would never have such beautiful buses and never be developed to this level.

We then took a train to Silicon Valley, but we didn't know where it exactly was. We asked people around us, but no one knew the name, because we only knew it as "Gui gu" which is how Chinese people know it. We got off the train not really sure where we were. We asked a local taxi driver and he said we were in Santa Clara,

which is actually where Silicon Valley is located. After arriving at Silicon Valley, we couldn't find anywhere to visit and we didn't know anybody. Eventually, we found a guy named Zhong Peifeng who could show us around because we needed to buy some components.

We were shocked by how great and advanced the US was. As we were wondering about how large US companies were, we took a taxi and traveled around the IBM campus which produced memory back then. We wanted to know how big that campus was, so we asked the driver to just go straight and not make any turns. We would check the mileage shown on the meter. After we reached the campus, the taxi managed another six kilometers before the driver got lost. We marveled at how large US factories were. We still feel the same now.

Even today, we still admire the US. This has never changed, not even in the face of their campaign against Huawei.

10 **Matt Murray: As you know probably, *The Wall Street Journal* reported earlier this year on a Huawei program in Africa that helped a couple of governments spy on opposition political figures. It was part of the smart cities program. Can you comment on that program? Is it something Huawei is still doing? What have you heard since that report came out from governments**

around the world?

Ren: First of all, what that report said was not true. You at *The Wall Street Journal* should be taking responsibility for your reporting. We've had our lawyers send you a letter, but I still believe *The Wall Street Journal* is a great news agency. You should be more conscious of whether what you report is true or not. What you said in that report didn't happen, so there was never any real response to the accusations in those countries you claimed involved.

11

Eva Dou: I heard that you really like European culture.

Ren: Not really. I like American culture most, which is very enterprising and innovative. I'm the type of person that is not satisfied with the status quo. I really admire the passion and ambition of young Americans. They like to do grandiose things to impress people. My wife said I am of the same type. Europe has a more conservative culture and more relaxed lifestyle. My family likes Europe very much. My wife is currently in Milan.

Eva Dou: Do you know HBO has a TV series about the telecom industry?

Ren: No, I didn't.

Eva Dou: I recommend you watch it. This TV series is about the telecom industry, telling a story about the

first transatlantic phone call between the King of Spain and the US President Calvin Coolidge. At that time, the Spanish government supported Telefónica because they wanted to spy on their enemies. As history shows, states often support the telecom industry because they want to spy on others, don't they? Is it like that in China? How will Huawei operate in today's historical and political environment?

Ren: Automobile manufacturers only sell their trucks to their customers. It is the drivers who decide what goods they want to put in the trucks. Manufacturers don't know anything about it. Just like automobile manufacturers, we only sell equipment. Networks are managed by telecom carriers, and we don't manage the equipment after selling it. We have no idea how carriers operate that equipment. Carriers build pipes and ensure information flows smoothly through the pipes, while we produce the iron sheets on top of the pipes. What could we do with iron sheets?

12 Matt Murray: I understand the sensitivity, but you have become a large global company with hundreds of thousands of employees. Can you be fully confident that there are no employees affiliated with Huawei anywhere engaging in activities like those we reported?

Ren: Our internal and external compliance systems and Committee of Ethics and Compliance ensure our employees comply with our *Employee Business Conduct Guidelines (BCG)*. We don't allow for violations. If there were any employees that did such a thing, they would be severely punished.

13 Neil Western, Asia Business Editor, *The Wall Street Journal*: On the point of selling iron sheets, I don't think that's strictly true since you spend a lot of money on cyber security and that money has been increasing over the years. Particularly since Edward Snowden revealed a few years back that the NSA has been able to use Huawei equipment to listen in on people. So where do you see the threat and how can you prevent that threat, from Huawei's point of view?

Ren: If we didn't invest in cyber security design, carriers wouldn't be willing to buy our equipment and many countries would ban us from their markets. If we didn't comply with *GDPR*, it would have been impossible for us to establish a presence in Europe. Cyber security and user privacy have become integral to all commodities.

It's a lot like a car. All cars have four wheels, so why are big brands usually more expensive? Because they are safer.

I think this is a requirement that all companies today

have to follow. Otherwise, it's going to be difficult to sell, not to mention selling at good prices. That's why we must meet customer requirements for security.

Networks are owned by carriers, who are subject to the laws and regulations of the countries in which they operate. Huawei is no different to companies selling trucks.

14 Dan Strumpf: I want to ask you about the future. Huawei has grown into, as Matt said, a company with hundreds of thousands of employees. It's all over the world. What are the biggest management challenges facing Huawei as it advances into the future? And what are the biggest challenges that will face the company in the future after you step down? And what would you like the company to look like after you step down?

Ren: Over the past 30 years, Huawei has grown from a small company into what we are today. We have stuck to the centralized management model throughout. Because of this, our HQ has become overstaffed and increasingly bureaucratic. If that continues, sooner or later, the company will be overwhelmed and may even collapse.

We held a meeting in Argentina discussing the pilot project for contract approvals at representative offices.

One of the key objectives of this project is to delegate decision-making authority to the people who are closest to our customers, and improve the personal grades and capabilities of people in the field.

If many senior managers who really dare to shoulder responsibilities work in field offices, then the processes in back-end offices at the company will be greatly simplified. And we don't necessarily need as many managers as we currently have at HQ. This way, our HQ will become streamlined and less bureaucratic, and the burden of supporting so many staff at HQ will be reduced. We plan to complete the transformation and enable contract approvals at representative offices within around five years.

Then, we will have a smaller HQ. There won't be many senior executives sitting in the office in the future. Most of the people at HQ will be ordinary staff. It's like removing a heavy hat that we used to wear. Our management system has been reversed and turned upside down so as to revitalize our company.

This is something we've learned from the US. This is the practice adopted by the US military. People assigned to the Pentagon may not necessarily have a bright future, while people working in the field may get promoted much faster. It's going to be the same at Huawei. Otherwise, who would be motivated to work in

hardship regions?

Matt Murray: So you don't want anybody to be assigned here in Shenzhen?

Ren: Take our employees working in Africa, for example. The value they create in dollar terms is not as high as those here in Guangdong province, but they are paid several times more than the people working in Guangdong.

15

Matt Murray: Can any one person replace the founder at a company like this? And I ask because you mentioned American companies and that's a difficult task to pull off in many American companies.

Ren: A reason that some American companies didn't work out is that they tied the company's destiny to one single person. Then the safety of executives in that kind of position is tightly linked with the company's stock value. So they can't take commercial flights because they think it's not safe enough, and they need to take bodyguards with them wherever they go. People like this are closely tied up in the interests of people on Wall Street. If one of these executives die, it can have a significant impact on Wall Street.

But at Huawei, I am more of a figure head. Whether or not I work in the company doesn't have a big impact

on its operations. Years ago, when we wanted to initiate a management transformation, we turned to IBM for advice. IBM's consultants told me that the ultimate goal of the transformation would be to get rid of me, taking away all the authority I might have. They asked me whether I was willing to do that and I told them I was.

Over the last 10-plus years, several hundred experts from IBM have helped Huawei with our management transformation. They have laid a solid foundation for Huawei's organizational structure and management, helping make the company what it is today.

Then where has the authority gone? It is actually embedded in processes. As a result, managers at lower levels have relatively strong authority. For example, a waiter can get a bottle of cola when they want. If I want a bottle but don't have a corresponding e-flow, then I'll have to pay for it.

Therefore, in this management transformation where we incorporated the lessons learned from Western companies, one of the most successful things we've done is leaving me only ceremonial authority. Meanwhile, different parts of the organization have been given different types of authority which flows throughout the organization in a closed loop. That way, whoever takes those positions can shoulder the responsibility to support Huawei's operations.

We are trying to reverse the authority structure within Huawei and give more authority to employees at lower levels in the hierarchy. If this new structure stabilizes, it will be very difficult for future successors to change it back into a centralized one. I believe this will ensure stability at Huawei for a long time.

16

Jonathan Cheng, China Bureau Chief, *The Wall Street Journal*: You have talked about this change in the structure and the Argentina meeting was a big part of this. When you were hearing about your daughter's arrest, you decided to go to Argentina anyway. Can you talk about how important this meeting was to you? Because a lot of people would look at this decision and feel that is rather callous to just go about your business and go to this meeting when your daughter had just been arrested.

Ren: Argentina is undergoing economic difficulties, including serious inflation. Huawei's former President of the Latin America Region had started a pilot transformation project in the Argentina Rep Office. When he was transferred back to HQ, we asked the new regional president to continue the project.

The goal was to approve contracts at the rep office. In the past, these decisions were made by HQ. But the transformation has given the rep office the authority to

make such decisions and also to distribute incentives. That has substantially motivated the team. As a result, the business results of the Argentina Rep Office were very good despite the unprecedentedly challenging environment there. This proved the transformation was a success, so now more than 20 rep offices are learning from Argentina and implementing this same transformation. We also expect that a large number of rep offices will undertake similar transformations next year.

With this transformation, efficiency will be improved and a smaller workforce will be needed. Therefore, in order to avoid large-scale layoffs, I approved a document only a few days ago to allocate a budget of one billion US dollars and headcount of 10,000 to our Strategic Reserve as a buffer for those employees who will no longer be needed in their current positions. They won't be laid off. Instead, they'll be given training and take exams within our Strategic Reserve. After they become qualified for new responsibilities, they will have the chance to take up new positions and work on new projects. In this way, we want to ensure stable transformation and transition in the company, and avoid excessive layoffs.

17

Neil Western: Why did you choose to have that meeting in one of the areas that is so close to the G20

Summit?

Ren: That meeting didn't have anything to do with the G20 Summit. Even if we wanted to have it next to the G20 venue, we'd never find enough hotel rooms. And our meeting was held sometime later, after the summit was over, because the weather was nicer then. We had it in an upscale hotel called Llao Llao Hotel in a remote, scenic part of the country.

Neil Western: Once your daughter was arrested in Vancouver, what were your thoughts about the personal risk of being arrested making that journey?

Ren: It was risky, but if I acted scared, everyone else would too, right? I had to go ahead. I transferred flights in Dubai, which I think is very open.

Dan Strumpf: Were you in communication with your daughter around that time? I mean this meeting was obviously so important for you to attend that you did it just days after the arrest of your daughter, who is also your CFO. What was going through your head at that time? Did you feel anguish and were you in touch with Meng Wanzhou?

Ren: I forgot what my thoughts were back then. I was only focused on the meeting going well.

Eva Dou: Talk a bit about Meng Wanzhou being called "Piggy". You can see it from the birthday letter she

wrote to you the other day. Why that name?

Ren: When she was young, Meng was a chubby girl who could really eat, just like a little pig, so she got the name Piggy.

My younger daughter also likes stuffed pig toys, and she calls herself Piggy too. She calls me Daddy Pig, and her mom Mommy Pig.

It's such a coincidence that both of my daughters call themselves Piggy. I had never thought about why they both do this. But it's just a coincidence.

18

Neil Western: Huawei's problems this year have been inextricably linked to the trade fight between the US and China. Could you describe what conversations you have had with President Xi Jinping or Negotiator Liu He over the past year, in terms of resolving Huawei's problems with the US?

Ren: The trade talks between China and the US have nothing to do with Huawei because we have virtually no business dealings in the US, and it wouldn't matter to us if the tariff increased to 1,000%. The China-US trade talks are not something I'm concerned with.

Eva Dou: Huawei is just a bargaining chip.

Ren: If the US thinks we can be used as a bargaining

chip, I'd say they probably have the wrong idea. Huawei will never be a bargaining chip, and we can live without relying on the US.

19

Matt Murray: I can attest as I heard directly that the government, in talking about the US trade talks, took up Huawei's cause and asked me and other journalists about other things, why is the US pressing Huawei, what is the issue? The Chinese government says it's unfair, and the government does take up Huawei's cause.

Ren: I didn't know that, and I haven't seen reports on that. We don't need the US to remove Huawei from the Entity List. They may as well keep us there forever because we'll be fine without them. Having said that, we will still embrace globalization and welcome any US company that supplies us. But even if they can't supply us, we can still survive.

Matt Murray: To clarify, you've actually had a great year. You've been doing well and decoupling from the US supply chain through the year, and now you're saying Huawei doesn't need the US for the foreseeable future. Does Huawei plan, whatever happens in US-China relations, to proceed without the US, even if they become open to you again?

Ren: We'll never decouple from the rest of the world, and we'll continue to unswervingly embrace globalization. But this is only our ideal. If the US continues to block us from their supply chain, we'll have no problem surviving on our own. We are already not using American components in our 5G base stations, or our transmission, access, and core networks. Of course, we still have a version that can use American components.

20

Eva Dou: There was a question related to Huawei's history. Some customers in Europe and the US are skeptical of Huawei's government background and investment coming from the government. I noticed that in the 1990s Huawei had a subsidiary called Mobeck, and it received a lot of investment from provincial and municipal companies of China's telecom bureau. Several years later, as Huawei's business grew, those companies were kicked out. Since then, there has been no investor in Huawei. So why was Mobeck set up in the first place? And why was it closed afterwards?

Ren: First, Mobeck was a power supply company, and power supplies were a marginal product for us. Second, in 1992 China started to impose stricter financial controls. Why? China suffered from very serious inflation

after the financial bubble burst in the late 1980s, so the central government implemented stringent financial policies in 1993. Banks were prohibited from offering new loans. For the loans already issued, the banks were made to recover them, even if they weren't due yet. At that time, if we wanted to run a power supply company on our own and sell it later to earn some money, we wouldn't have enough money to develop Huawei. That was why we sought investment from "tertiary-industry" companies, or labor service companies, which were governed by the telecom bureaus. These companies were all under collective ownership, and they were unique to China during that specific period of history. Such companies were set up because there was no other place to go for staff that had been deemed redundant by state-owned enterprises at the time. So they were moved to these companies just to stay employed. A few years later, when the power supply company grew bigger with the raised funds, it was sold to a US company called Emerson for 750 million US dollars. That money was distributed to the staff and the company was disbanded. Actually, some of the staff wanted to continue running the company, but I said I couldn't shoulder that burden anymore, so it was disbanded.

21

Matt Murray: Mr. Ren, you've seen remarkable changes over your career. Your 5G rollout is now picking up

steam dramatically. What will we see in the world of technology in the next 10 years? What comes after 5G and how many more transformative changes lie ahead in the next decade?

Ren: I cannot imagine what society will look like in three years' time, not to mention 10 years. Not that many years back, very few people could have imagined that we would be able to use our mobile phones to browse the Internet. Steve Jobs, with his iPhone, basically changed the entire world. I think the Internet took off because the iPhone made wireless networks a reality. After 5G, I think the biggest opportunity will be centered on artificial intelligence (AI). What our society will look like is still something we cannot imagine at this point in time.

You've already had a tour of our production line. It is just a little intelligent. AI is only used in several steps along the production line. Yet still, you don't see many people. In the future, there will be even fewer people after AI is more widely deployed.

We have hired many mathematicians and doctors of mathematics for our production systems. Because of their efforts, we've seen great progress in the way we approach planning, management, and scheduling. Now, scheduling takes place in the IT system to ensure production activities are non-stop, 24/7. We also have

robots delivering materials to specific locations at given times to ensure that we can keep feeding the production line. This is constant production. That is the change we are seeing in our own environment. But we still don't know what society will look like 10 years down the road.

Currently, AI is used to its utmost in chip production. Right now, the US is still the most advanced when it comes to scale or the level of sophistication for chip fabrication.

If other industries follow suit and introduce AI to production, productivity will significantly increase. To adapt to future society, the most important job of every country is to improve the level of education.

Matt Murray: Because workers will be displaced by AI, Mr. Ren?

Ren: Yes. Or they will not be skilled or knowledgeable enough to manage AI systems.

Matt Murray: Mr. Ren, thank you very much for your generosity and for taking all our questions. I want to thank your entire team for their hospitality and all they've done. I also want to commend the interpreter who is going to have a bad hand cramp. But thank you very much for hosting us.

Ren: I would welcome you back again the same time next year to see whether we are safe and sound. You're welcome anytime.

Responses to Additional Questions from The Wall Street Journal

01 **Mr. Ren was 43 years old when he founded Huawei in 1987 correct?**

Yes.

02 **Mr. Ren studied building heating and airflow engineering in Chongqing correct? What year did he graduate?**

Mr. Ren graduated from the Chongqing Institute of Civil Engineering and Architecture in 1968, majoring in heating, gas supply, and ventilation engineering.

03 **We understand Mr. Ren spent early years of his career at the 011 military airbase, and the 00229 military research institute in eastern Jinan, in his early 30s. Possible to get the exact years of these assignments?**

After graduating from university in 1968, Mr. Ren was assigned to the Second Company of the State Construction Commission's Third Bureau. This was during the middle of China's Cultural Revolution, and university graduates at the time were sent for re-education in working-class values. There, he worked as

a cook for two years and a plumber for several years for the second installation engineering team before moving on to help their technology division. This company constructed buildings for the 011 factory, but was not actually part of the military. With this company, Mr. Ren was not a soldier. The 011 was a factory, and was not part of the military, either. In 1974, Mr. Ren was then transferred to Troop 00229 in Northeast China to build the Liao Yang Chemical Fiber Factory. There, he was a technician in a low-level unit, before being promoted to engineer in 1978. This troop moved to Jinan later on.

04 **After Mr. Ren went to Shenzhen in the 1980s, a mistake at a state-owned enterprise left him hugely in debt and without work. Correct? Any other details of the mistake available?**

After retiring from the army, Mr. Ren worked in an electronics company affiliated to the Shenzhen South Sea Oil Corporation. At that time, he didn't understand how the market worked, and made a mistake at work, which caused losses, but the losses were not significant, and the majority of the losses were recovered shortly after, mostly in the form of cash and a small amount in the form of goods. Some of the goods were damaged when they were processed though. After establishing Huawei, Mr. Ren even helped this company pay back

some of its debts. Mr. Ren was not dismissed by his company; he quit his job to start Huawei.

05 Do you know why Mr. Ren named the company Huawei (and that it was he who named it)?

Back then, Mr. Ren couldn't think of a name for the company, and made up the Chinese name "Huawei" based off of a slogan he randomly saw on the wall. This name isn't actually that easy to pronounce, so Mr. Ren wanted to change it later on, but he didn't have the money to do it at the time.

06 Is it correct or say that Huawei's sales frequently doubled year n year during the early 90s? Possible to get company sales figures from this period?

Please see the following table for Huawei's sales data before 2001. You can find our revenue after 2001 in Huawei's annual reports available on our official website at <https://www.huawei.com/en/press-events/annual-report>.

Fiscal Year	Total Sales Revenue (In RMB Thousands)	YoY
1987		
1988	5,532	/
1989	15,263	176%

1990	33,526	120%
1991	50,198	50%
1992	104,885	109%
1993	238,386	127%
1994	555,406	133%
1995	876,508	58%
1996	1,242,293	42%
1997	3,210,797	158%
1998	5,958,241	86%
1999	7,696,934	29%
2000	16,001,130	108%
2001	19,921,868	25%

07 Huawei narrowly avoided bankruptcy in 1994 after appeals by Mr. Ren to local officials. Jiang Zemin visited Shenzhen this same year and we know Mr. Ren and Jiang have met before—did the two meet at this time?

Huawei was not on the verge of bankruptcy in 1994, nor did Mr. Ren seek help from local officials that year.

At that time, Huawei was developing very quickly, and lacked capital. Power supplies were a marginal product for us back then, so we turned to "tertiary-industry" companies to invest in these products. These companies were labor service companies, which were governed

by China's telecom bureaus. With this investment, we established a company called Mobeck. This solved our capital shortage. Mobeck was later sold to a US company for 750 million US dollars.

President Jiang Zemin visited Huawei in 2000, and Mr. Ren was part of the team that hosted President Jiang. Back then, Huawei was still pretty rough. The concrete in our factories hadn't even dried yet.

08

Mr. Ren has assembled advisory boards in many Western markets to help smooth the company's way into new markets. We understand Huawei also convened an advisory board in the U.S. in April 2011, comprising a handful of former government officials and members of Congress, including former U.S. Trade Representative Mickey Kantor, and former Senate Majority Leader Bill Frist. The group met over two days at Huawei's Santa Clara, Calif. Topics, according to an agenda, included "How to communicate with, and obtain the support of, the Federal Government and members of Congress?" and "How to mitigate the security concerns of the USA?" Any comment on this?

We wanted to use this platform to communicate with the US and help them understand Huawei better.

09 **Mr. Ren hasn't set foot in the U.S. "for years", correct? In 2007 he was interviewed by the FBI in the U.S. (this was in one of the indictments). Any comment?**

In recent years, there has been no business that needed Mr. Ren in the US.

We have no additional information about the FBI's interview with Mr. Ren.

10 **We understand that in the last year Mr. Ren assembled a core team consisting of four of Huawei's 14 directors to be the point-team handling U.S. matters. They include Madame Chen, Dr. Song, Guo Ping and Howard Liang. Correct and/or comment on this?**

This is incorrect. We put together a team of primarily third party US lawyers to respond to the lawsuits that have been brought against Huawei.

11 **In October Madame Chen sent a memo to staff that laid out Mr. Ren's three-pronged strategy for fighting back against U.S. efforts to derail Huawei's business globally: engaging foreign media, fighting on the legal front and investing in technology. The memo also describes Mr. Ren's "Marshmallow Campaign." Comment on the memo?**

Huawei's communications strategy is pretty standard compared to any other business.

This strategy basically says we should deal with our situation by being friendly and amicable. Hurling "marshmallows" at someone won't hurt them.

12 I understand the press conference announcement of last year's NDAA lawsuit, in which executives stood on stage and took turns speaking, etc., was intended to mimic in style the U.S. government press conference in January, in which officials from Justice and Commerce Departments took turns to announce their indictments of Huawei. Comment?

We simply staged the event in a manner that we felt would most clearly get our message across.

13 The NDAA lawsuit was not without internal dissent. Before the lawsuit was announced, Huawei's Washington staff sent an email to Ms. Chen just a few weeks before it was filed, and called its timing "a major mistake" that would mark a setback in efforts to engage with U.S. officials. Any comment on this?

We are not aware of this. However, it's perfectly normal for differing opinions to exist in any company.



Ren Zhengfei's German Media Roundtable

November 6, 2019 Shenzhen, China

Ren: Good to have you here at Huawei. It's a pleasure to see you all. I am more than happy to take your questions.

01 *Der Spiegel:* So, first of all, thank you very much for having us. It's a pleasure to be here. And thank you very much for taking an entire hour for us. We appreciate it a lot. Maybe I'll start with something about these surroundings that intrigued me when I came in here. In the hallway with the staircase leading up to this room, you have a large oil painting of the coronation of Napoleon, the French Emperor. And in the back there's a large photo of the reenactment of the battle of Waterloo that basically is the demise of Napoleon. That brings me to ask: Is Huawei a rising or falling empire? And are you at war?

Ren: Those two paintings don't have anything to do with the situation Huawei faces today. They are just works of art for decoration. I saw the painting for the 200th anniversary of the Battle of Waterloo in a Belgium museum. I found it striking and bought it for decoration here. The coronation painting is a work by a family member of one of our employees, who took four years to finish it. He gave it to me as a gift and wanted me to hang it in my house. But my house isn't big enough for a painting like this. So he instead gifted it to the

company and we hung it here. These paintings do not have anything to do with our current business situation.

***Der Spiegel:* Just one follow-up. So, how would you describe the situation that Huawei is in currently? Would you describe it as a war? Because the term trade war is being tossed around a lot. And if not, how would you describe the situation the company is in at the moment?**

Ren: I would say Huawei's growth is like an exponential curve, an upward spiral. Overall, its current development is very healthy.

02

***ZDF:* I want to show you the picture, and I don't want to focus too much on simplification, but I want to show you a picture which I found on the campus. This is your picture from your company, if you can take a look. This is an old warplane during World War II which took many hits. Why did you choose this kind of picture to symbolize the situation of your company right now?**

Ren: I just happened to see this photo online after Huawei was added to the Entity List. As you can see, the plane in the photo is riddled with bullet holes, but is still flying. I feel as though Huawei is currently in a similar situation. We have also been riddled with numerous "bullet holes", but we are still hanging in there and our

airplane is still flying. We are working very hard to patch up the "holes" in our business so that our plane can continue flying and make it home safely.

We have brought together many scientists and experts responsible for working on Huawei's long-term development over the next five to ten years to patch up the "holes" in our business. We are patching up those "holes" in order to survive rather than lead the world.

We have fixed most of the "holes" in our business, so our plane is still flying. However, there are still some important "holes" that will take us the next two or three years to fully patch up. We have put together thousands of scientists, experts, and engineers who are working hard to fix those holes. I believe we can accomplish that task and turn our broken plane into a brand-new plane over the next two to three years.

ZDF: Just one more question, sir, who is shooting at you? Are these Americans who are shooting at your company?

Ren: Yes, the US government is shooting at us.

ZDF: The Americans are shooting? In which way?

Ren: They are shooting at us by adopting various means, such as adding Huawei to the Entity List and banning us from buying and using US components and software.

03

***DPA:* The German government is debating right now if Huawei should take part in the construction of the country's 5G network. Some politicians still have doubts and say Huawei may not be trustworthy because they could pass on information, or could be forced to pass on information to the Chinese government. How do you respond to those fears?**

Ren: The catalog of security requirements recently released by the German government raises the bar on the security of 5G vendors, and equally applies to all vendors. We strongly support this approach. Facts must be used to prove vendors' security and reliability. The German government will perform evaluations, in which Huawei will happily be an active participant.

***DPA:* The Foreign Minister Heiko Maas has cast doubts that this catalog is inadequate, so the discussions seem to be not ended. And at the moment, there are many fears about Huawei. How could you stop those fears?**

Ren: We should leave that discussion to politicians. As a technology provider, our responsibility is to make good products. We are not in a position and don't have the capacity to engage in political discussions. We believe that the German government will make policies that best serve the interests of the German people.

***DPA:* Can you ensure you won't pass on information to the Chinese government?**

Ren: We can, absolutely. We will sign a "no backdoor" agreement with the German government, representing our promise to Germany.

04 DvH Medien GmbH: You offered Europe that you would like to work together with Europe. Why did you offer this? Because you're so strong already. Or to put the question in a wider perspective, how important are the Western countries still for your business?

Ren: We certainly want to sell our products around the world. The more products we sell, the more profit we can make. We have to offset our R&D costs and other costs, and we need sizable markets. Europe, Africa, the Middle East, and others are all our target markets, and we should actively serve people in these markets. The African market is challenging because we cannot make much money there, but we are still striving to serve Africa.

We believe that the German government will make policies that serve the interests of the German people. We also believe that Germany can make the best decisions based on facts, evidence, and full discussions.

If a small number of European countries decide not to choose us, we won't have any issues with them and will simply stop selling in these markets.

DvH Medien GmbH: Why do you want to work together with Germany and Europe in the area of research and development? You're strong already.

Ren: We are in an age of globalization and openness. Closing ourselves off won't lead to success. We are working with European scientists to research future-proof products. We also help Europe develop its software, applications, and industry capabilities. We should collaborate to contribute to an intelligent world. Have you visited our production lines? We use software made by Siemens, Bosch, and Dassault in our production lines, and most of our production equipment was made by Germany and Japan.

DvH Medien GmbH: Is the software good?

Ren: It's pretty good. We increased our production efficiency by integrating our AI technology with the software we got from Siemens, Bosch, and Dassault. We are open, not only to researching new products in Europe, but also to providing services to Europe. For example, Huawei has the most advanced AI-backed autonomous driving and intelligent car technologies, and we are willing to work more closely with European companies in this area. When it comes to intelligent computing in vehicles, we can collaborate with them on every aspect of this field, or just on a few targeted aspects, like specifically on chips. We want to grow

together with European companies, so we will contribute more to Europe.

DvH Medien GmbH: Why are you so strong in autonomous driving?

Ren: Since the very beginning, we have designed our chips based on level-4 autonomous driving standards. Europe, Japan, and China all followed the same standards, while the US adopted different standards. Huawei is a leader in terms of intelligent computing, so we are strong in autonomous driving.

05

ARD German Radio: A lot of the questions regarding Huawei in the past weeks in Germany have been not only dealing with technical details, but also with the question of trust and with the rule of law. Do you understand that in Germany there are more and more politicians who doubt that the level of rule of law in China is not equal to the level of rule of law in Germany and that's why there is a lack of trust towards companies from China?

Ren: If people make political judgments simply based on the country or region a business comes from, how can they tell who their friends are? How can they tell which countries are the most credible ones? The US? They don't offer products equivalent to ours. Germany

should be one of those most trusted countries. But if Germany is the only country that is being trusted, how will German companies be able to go global? All companies want to go global, but they have to subject themselves to the choices made by global customers and assessments by world governments. They need to hear critical voices. Ultimately, countries and carriers will make independent choices in line with their own interests.

ARD German Radio: Just a follow-up, do you think that China and Europe are comparable when it comes to the level of rule of law? Because this is actually the main debate right now in Germany and this might be the reason for the decision in whichever way for your company.

Ren: China is making progress every day in terms of the rule of law and is advancing the rule of law and the market economy. Some may argue that China is not doing enough to promote the rule of law and therefore we should not allow Huawei products to be sold in our country. But if you are selling your cars to a country that you think is not doing good enough in terms of the rule of law, doesn't that suggest that you support the status quo in that country?

We should come together and try to reach a consensus on an approach that benefits us all. The most

important thing for a company is to abide by the laws and regulations in countries where it operates.

ARD German Radio: Is there a danger that Huawei will pull its investment out of Germany if the decision is not in your interests?

Ren: We will not pull out our investment, because investment has nothing to do with sales. If you say our products don't meet your requirements and thus you won't buy from us, we can choose not to sell. We won't take it personally.

Even though the Canadian government has, at the request of the US government, detained a member of my family, I don't bear a grudge against Canada, nor have we cut our investment there. This year, we have invested heavily in Canada. We have hired more than 200 additional scientists and experts to work at our facilities in Canada. We want to help Canada develop into an innovation hub, like Silicon Valley.

People in Canada and the US have a shared heritage and similar lifestyles, and they're geographically close to each other. So it is easier for Canada to attract some of their friends to join in with their innovation. In addition, many scientists cannot get a US visa. In this case, many international conferences can be held in Canada instead. When sufficient conferences are held in Canada, innovation there will boil over.

We separate our personal emotions from corporate development. Even if Huawei is not selected to build 5G networks in Germany, it won't affect our development in the country. At the moment, we are in the process of building a large industrial campus of around one million square meters on our Songshan Lake campus. We will buy a lot of industrial equipment from both Japan and Germany to expand our production capacity for the next year. If we don't consider our own business interests, but only consider political interests, that would be too naïve.

The way I see it, Germany really needs Huawei, technically. This is because artificial intelligence is extremely important to Germany's Industry 4.0 initiative. The precision manufacturing industry in Germany relies on data transmission systems that have a high bandwidth and low latency. That is an area where Huawei is unrivaled, and I believe customers know that and they will choose us.

DvH Medien GmbH: But you shouldn't buy from Japan. You'll get a better price elsewhere.

Ren: Not necessarily. Japan is our strategic partner. Why not buy from them? The Japanese approach to management is different from what you have in Germany. In Germany, people are very confident. They test products only at the end of the manufacturing process. But in Japan, people are meticulous. They

conduct a test at almost every step of the manufacturing process. That's why we have built one factory in Weilheim, Germany and one in Funabashi, Japan. These two factories can help us combine the strengths of both Japan and Germany and make high-quality products. Then it will be impossible that customers don't buy from us.

The challenge for Huawei, though, is that we may not have enough capacity to meet customer demand. That's why we are asking our customers in China to buy less from us at this time, so that we will have enough capacity to supply international customers. As you know, it takes time to expand the production capacity of new products.

DvH Medien GmbH: How do you convince them to buy less? That's very difficult.

Ren: It is difficult to persuade them, but there's no other choice. We don't have enough capacity to meet customer demand. In a few days, China's Double 11 Shopping Festival is going to start, so I advised our Consumer Business Group to further reduce the price of our devices to lower our profits. Our profits for this year are already very high. The Consumer Business Group's CEO agreed but their supply chain department didn't. They said they had only prepared to sell 10 million units during this festival. If the price was further reduced,

then demand would soar. If we can't deliver the devices to consumers, then we are just offering them empty promises.

DvH Medien GmbH: Big problems.

06 TAZ: Recently there were some positive signals from the Trump administration to try to de-escalate the trade war and reach the first steps towards a pre-trade agreement with China. What kind of hopes does Mr. Ren have if that deal should be achieved? Could that help fix the holes of Huawei?

Ren: We almost have no sales in the US, so the trade talks between China and the US have nothing to do with us. I don't pay attention to the news about it, so I am not able to answer this question.

In addition, we can solve our supply issue without relying on the US. We will survive even if the US keeps us on the Entity List. I don't know if you took any photos when you visited our exhibition halls. When the Associated Press came here, we allowed them to take pictures of every one of our circuit boards. There is not a single US component or chip on them now. Adding us to the Entity List has not harmed us, but it has harmed US companies. They can keep us on the list or remove us as they like. But they should make that decision based on the interests of US companies. They don't need to take

us into account.

07 *ARD German Radio:* **How is your daughter doing in Vancouver? And how often do you talk to her?**

Ren: I don't talk to her over the phone very often. Her mother is with her, and I think she is doing well. She is in good spirits, and she's very strong. I believe she will be able to ride this out.

08 *ARD German Radio:* **You must have a special relationship with Europe because the environment we are currently sitting in is totally European. Even the porcelain is from Germany. There is also Chinese porcelain. Why do you like this?**

Ren: I also have wine glasses, as well as hard knives and forks from Germany. I once said that if there were no labor laws in Germany, all knives and forks in the world might have been made in Germany. With artificial intelligence, Germany will be able to shake off the constraints of labor laws, and embrace explosive growth in the future.

09 *Der Spiegel:* **You have a very good sense of humor, but I would like to move to a more serious area of what you said previously, because supply is a problem. I**

understand that the US is not an important market for you in terms of selling, but it's an important market in terms of sourcing. I would like to know how Huawei plans to overcome the shortage in sourcing and especially the problems with Google and Android.

Ren: I can tell you for sure that Huawei will continue its rapid growth even without US supplies. But Huawei will always be willing to work with US companies. We will always embrace globalization. We will never close ourselves off from the rest of the world and seek independent innovation or self-reliance.

10 *Der Spiegel:* **How do you want to deal with the fact that you may not be able to access Google products or the Google Play Store within 14 days? I understand that you're developing your own operating system, but it's a huge environment and infrastructure, so it will take time to set that up. How do you plan to bridge that gap?**

Ren: We'll see on November 20. You're welcome to come back and interview me again then.

11 *ZDF:* **I want to ask you a personal question. I have read a little bit about you and you're clearly the embodiment of the rise of China. You grew up in an**

average family. You were hungry and you didn't have enough money. And now you're sitting here and you really have made it. In many ways, it's just like how China has risen to become a superpower. So let's look at Europe. You're talking about your wonderful products that nobody else can produce and saying how essential these products are. Then you have these dishes from Europe, knives from Germany, and these kinds of museums which only have cultural things, but you don't have any high-tech products from Europe. If you look at Europe and Germany maybe, do you have some feelings that Europe, compared to China, is a continent which is in decline, and China is a continent which is rising to become a superpower?

Ren: Actually, many high-tech products come from Europe, but many of them are not out in plain view. For example, we use SAP software in our human resource management. We also use software from Siemens, Bosch, and Dassault in our product design, manufacturing, and supply systems. So we certainly have used lots of advanced high-tech products from Europe. Besides, in our devices, we have applied much mathematical, physical, chemical, and aesthetical knowledge from France, Germany, Italy, and other European countries. So we do use a lot of high-tech products from Europe.

Europe may need to change some of its business rules. Europe should be bolder in selling its products to China. Will Europe and China go to war? Of course not. Then why is Europe still sticking to the old rules of economic blockade? Since the US doesn't sell these products to us, it's a great opportunity for Europe to rise. Why don't you seize this opportunity and fill the gap left by the US?

Since we have enormous demand for chips, why can't Europe make a big investment in advanced chip manufacturing? Why don't you make more money when you have the opportunity? Europe has some big chip manufacturers. If you increase investment in chip manufacturing, Huawei will certainly buy more. But of course, Europe needs to ensure that no more than 25% of investment in this area comes from the US; otherwise, you'll be subject to US rules. If you don't want investments from China, you can turn to the Middle East.

Clearly, ICT adoption is accelerating, but we may not have the capacity to meet the rising demands. I hope to see European companies like Infineon, NXP Semiconductors, and STMicroelectronics invest more to increase their production capacity. Chip production equipment is also made in Europe, and you can try to persuade these European companies to invest more in building new factories. If they don't have enough money,

we can make advanced payments to support their development.

Opportunity is rare, and once it appears, European companies should seize it to speed up their development. If they miss out on this opportunity, they may fall behind.

12 *DvH Medien GmbH*: **What are the differences between Western enterprises and Chinese enterprises? Are there any?**

Ren: Western companies are more outstanding. Germany and Switzerland are bywords for quality, but Chinese companies don't have that kind of brand influence yet.

DvH Medien GmbH: **Except Huawei.**

Ren: Even Huawei is not there yet.

13 *Der Spiegel*: **The numbers that you published in mid-October for the first nine months of the year were excellent. Your business revenue was up almost 25%. How did you pull that off despite the global economic conditions as they are?**

Ren: Our growth rate already dropped to 17% in October. We have achieved growth this year because all our employees have a sense of urgency, and we have

been working harder than ever before to row our boat to increase revenue and profits.

14 ZDF: What I've learned after coming to Huawei is that it seems like Huawei is always considered part of national pride. The Chinese are buying more Huawei smartphones to support the company during these very hard times of the trade war. My question is, if the political decision is to reject Huawei, will there be repercussions on German cars and other industries, just like the Chinese government has done before? What are people's feelings about that?

Ren: First, I've already criticized some of our staff, asking them not to take advantage of Chinese consumers' enthusiasm for Huawei. We should continue to be customer-centric and give top priority to improving customer experience. Second, will there be repercussions on the automotive industry, whether it be for German or Japanese cars? I think facts speak for themselves. There are numerous German and Japanese cars still on the road in China.

Content in this publication is based on excerpts of Huawei founder and CEO Mr. Ren's interviews with the media.

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