

Overview of Huawei developments in Europe

- In 2019, Huawei brought a total contribution to Europe's GDP of 16.4 billion EUR through direct, indirect and induced channels
- The company is supporting 224,300 jobs across Europe. 13,800 people are directly employed by Huawei
- 6.6 billion EUR in total tax revenues has been raised in Europe last year. Of this total Huawei itself contributed around 1.6 billion EUR.
- We now have 23 research centres across 12 different countries in Europe, 230 different technology partnership agreements with research institutes in Europe and over 150 university collaborations.
- In October, Huawei announced the setting up of a new open innovation research centre in Paris that will be focussing on mathematical research. This is our 6th research centre in France.
- Our new 5G production facility in Europe will be built near Strasbourg.
- A new cyber-security transparency centre will open next year in Rome. This new facility will complement the work of our existing Huawei cyber-security centres in Brussels and in Bonn.
- Huawei is due to open a new research facility in Hungary that will focus on AI, signal transmission technologies and streaming.
- We are recruiting 100 people for new research facilities in Amsterdam that will focus on next generation technological research for our consumer cloud business.
- We are rolling out a 70 million euro R&D investment in Ireland covering the areas of video innovation and site reliability engineering.

Being in Europe for 20 years already, Huawei has been integrating closely within the European ecosystem as to ensure a maximum value for our partners and customers.

- Huawei is a member of the 5G Alliance for Connected Industries and Automation which is successfully supporting 5G deployment in industrial production in Europe and in a global context. We are already active in Europe in terms of providing 5G solutions to the transport, manufacturing and logistic sectors.
 - Our industrial automation laboratory in Munich also supports the development of high end vehicle components.
 - Huawei is working with both Audi and BMW to improve the automation of their production lines.
 - Huawei is supporting Airbus in building a 5G network to improve aircraft production capabilities.
 - Our smart port solutions are being deployed in the Netherlands.
- Huawei is cooperating with Germany's BSI to support with the establishment of both higher security standards for 5G and AI standards for businesses.
- Huawei has contributed to projects to help Europe build an open source ecosystem and to accelerate open source implementation in Europe through our open cloud services and via Harmony OS.

Resilience of international supply chains in the ICT industry

The electronics industry is a cornerstone to the European digital transformation as today microelectronics and the systems built around them, and the products, platforms and services they enable, have become the instruments and pillars of nearly all human activities: from defence applications, cybersecurity and the protection of essential services (such as energy or health services), to IT and communications services required to run businesses in today's economy.

Microelectronics, with a global revenue of less than €500B, give birth to a more than €2 000B global electronics industry, which ranks among the major world industries, on the same level as the automotive industry. The European electronics industry employs 2.6 million people in Europe, of which 455 000 in microelectronics.

Since 2018, the United States government has engaged in a trade war against China and are adopting a series of unilateral sanctions by placing new Chinese companies under embargo. In this regards, the US administration is forcing non-US companies to comply with these embargoes by virtue of the extraterritorial nature of the US law. US embargoes against Chinese companies generate a direct decrease in sales for the European suppliers of the Chinese companies placed under embargo. US embargoes have already cost nearly €5 billion to the European electronics industry (from materials to components), corresponding to nearly 9,000 jobs lost or not created and more than €10 billion in GDP lost. As a consequence, the European microelectronics industry is suffering from these embargoes without compensation from the US government. In fact, US embargoes run the risk of a recession in the European microelectronics industry in 2021.

US embargoes also create uncertainty and business risk for the entire European electronics value chain. In 2020, the ESIA as well as all the European leading companies in microelectronics identifies such trade restrictions as a significant business risk for their activities (ST Microelectronics, NXP, Infineon, ASML, Exyte, ASM International, etc.).

These sanctions are a threat to the European microelectronics, electronics, and industry in general: China is the largest export market for the European microelectronics industry, accounting for 30% of the total production on the continent in 2019. China is also the largest market of the top three European semiconductor manufacturers (ST Microelectronics, Infineon and NXP), accounting for almost one third of their total sales in 2019.

Meanwhile US companies are being granted licenses to sell chips to Chinese companies (e.g. Intel and AMD licensed to sell certain chips to Huawei), generating growth for the American electronics industry to the detriment of European industry.

Restrictions on Huawei – technical details

In May 2019 the U.S. Bureau of Industry and Security added Huawei's headquarters and numerous affiliates to its Entity List. In May and August 2020 the BIS amended its decision by a new Final Rule (changes to the Foreign Produced Direct Product Rule).

The Final Rule as amended on 17 August 2020 has had a significant impact on the Huawei EU Entities (which are suffering substantial losses of revenue, losses of reputation and brand value) and Huawei's European commercial partners.

1. Entity Listing

- Commodities, software or technology that are subject to the U.S. Export Administration Regulations (EAR) cannot be exported, re-exported or transferred from any persons and entities subject to EAR jurisdiction to Huawei or its listed affiliates without the approval of the U.S. Government
- U.S. has repeatedly expanded the list. For example, in August six new EU-based entities added
- Originally, the U.S. Commerce Department had granted (and prolonged) a Temporary General License (TGL), which was, however, limited in scope
- This TGL is withdrawn and replaced by an even more limited instrument

2. Foreign-Produced Direct Product Rule

- Prohibition of the re-export, export from abroad, or transfer (in-country) without a license, of certain foreign produced items when the foreign produced item will be incorporated into, or will be used in the production or development of any part, component, or equipment produced, purchased, or ordered by an Huawei entity listed on the Entity List or if such an entity is a party to any transaction involving the foreign-produced item, e.g., as a purchaser, intermediate consignee, ultimate consignee, or end-user
- The Foreign-Produced Direct Product Rule extends to items that are not themselves subject to U.S. export restrictions (namely under EAR). Rather, it is sufficient that the foreign-produced item is being produced, no matter from whose design, by a plant or major component of a plant (made in a foreign country or the U.S.) that is a direct product of specified U.S.-origin technology or software subject to the EAR

Hypothetical commercial scenarios following implementation of Final Rule

- EU Semiconductor-Companies are forced to stop supplying or licensing Huawei (namely ST Microelectronics, NXP, Infineon, AMS and ARM). Potential negative impact on MNO/customers.
 - Huawei not only procures chipsets for its 5G equipment from these European suppliers, but also for other product lines (e.g. example, Infineon's power management chips are also deployed in smart car solutions and smart devices, as well as mobile phones).
 - In 2019, Huawei's overall procurement amount in Europe was roughly US\$7 billion for engineering and production procurement, of which US\$3 billion for production procurement (components).

- The total amount that Huawei procured from the first three abovementioned semiconductor companies was US\$1.2 billion. Huawei had set out the plan to increase procurement from these three semiconductor companies to a combined annual amount of US\$3billion.
- Google stopped supplying Huawei devices with Android GMS including with security updates. In addition, Google interferes with app developers who market apps via Huawei's app store App-Gallery, while also engaging in anti-competitive tactics, including misrepresenting their own products to app developers and customers¹, 90 million consumers use Huawei handsets across the continent. Their consumer rights are at risk by the US measures as Google will not be providing security and software updates to Huawei's legacy phones on the market.

EU leading role & global cooperation on research, standards & certification for future technologies (6G)

The EU Framework Program is the cornerstone for global standards, the harmonization process of EU funded research and innovation projects are of key importance for the unified global standard, and will set example for many other regions.

- a) Huawei believes 6G should be based on a single global standard: it is crucial for industry to leverage the scale of economics. Market fragmentation will cause will lead to incompatibilities and loss of economic opportunities for all players.
- b) Huawei believes the EU possesses the advantages and plays a unique role to shape the global ecosystem and to lead the development of global standards for future technologies

The EU has continually proved to be the values leader and standard setter of the world and we look forward to partnering with our stakeholders and help improve international cooperation. Huawei itself remains committed to promote collaboration between the EU and China, as well as the more than 170 countries where Huawei operates to ensure a truly global effort where EU takes the lead and is the venue to develop a globally unified 6G standard

¹[https://www.texasattorneygeneral.gov/sites/default/files/images/admin/2020/Press/20201216_1%20Complaint%20\(Redacted\).pdf](https://www.texasattorneygeneral.gov/sites/default/files/images/admin/2020/Press/20201216_1%20Complaint%20(Redacted).pdf)