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The European Union before China's  
rise as a tech power: the 5G case

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## *The European Union before China's rise as a tech power: the 5G case*

### *Abstract:*

*The rise of China has brought a new scenario of structural competition between Washington and Beijing. In this competition, technological supremacy plays a fundamental role. The European Union, an actor without technological autonomy, has been pressured by both powers to veto or include Huawei in its 5G networks. This is the first example of a situation that has signs of lengthening over time. In this new scenario, in which technological development is indispensable for autonomy and power, and which is characterized by geopolitical competition, member states cannot compete separately. It is time to rethink our role on a global scale and design ambitious measures to be autonomous and competitive.*

### *Keywords:*

*5G, China, European Union, geopolitics, strategic autonomy.*

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**\*NOTE:** The ideas contained in the Opinion Papers shall be responsibility of their authors, without necessarily reflecting the thinking of the IEEE or the Ministry of Defense.

## Introduction

China has experienced unprecedented economic growth. This situation has disrupted the liberal order designed after World War II—and entrenched after the end of the Cold War—in which the United States was the hegemon. Fukuyama's *End of History* turned out to be a parenthesis. The new reality is a situation of structural confrontation between the United States, which will try to do what it can to stop Chinese rise, and China, who, following a highly calculated strategy, is positioning itself as a superpower in the world order. This situation has signs of lengthening over time, although it will have moments of tension and relaxation along the way.

What role can the EU play in this new reality? This Union of sovereign states share, in general, a strategic alliance with the United States. With China, on the other hand, we have been strengthening economic and financial ties to the point of being also dependent on Beijing. In this framework, to which we must add the unilateral drift of the Trump Administration, the EU member states have been placed in a very uncomfortable situation, forced to 'choose a side'.

The first example of this reality has been revealed with the debate around 5G networks: a technology of great strategic importance, key to the Fourth Industrial Revolution, and on which countless industries will be settled. The United States, according to its interests of trying to slow down Chinese rise, has vetoed Huawei, Chinese champion in the field and the first option for the implementation of these networks in most Member States for several reasons. And asked its European partners to veto it as well.

### ***What is at stake in 5G implementation?***

First of all, what is it and what does 5G networks entail? Broadly speaking<sup>1</sup>, this is a new generation—the fifth— of mobile technologies. From 1G, developed in the 80s, to 4G, the majority network today, we have been increasing quality, volume of data and derived applications. The 1G allowed the use of mobile phones, 2G text messages, 3G brought the internet to mobile, and 4G allows streaming of audio and video. 5G, on the

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<sup>1</sup> WOYKE, Elizabeth "China is racing ahead in 5G. Here's what that means." *MIT Technology Review*, December 18, 2018, <https://www.technologyreview.com/s/612617/china-is-racing-ahead-in-5g-heres-what-it-means/>

other hand, will not only increase download speed, but will also allow more devices to be connected at once, opening the door to a large number of industries such as smart *cities*, driverless cars or the Internet of Things (IoT).

5G, in addition, by allowing real-time data collection and analysis, will become the 'eyes and ears'<sup>2</sup> of Artificial Intelligence systems. And, as latency —the sum of time delays within a network— also decreases, interactions between the internet and the cloud will become virtually instantaneous. It is the technological infrastructure on which the Fourth Industrial Revolution is built<sup>3</sup>. In short, it represents a not only quantitative but also qualitative leap<sup>4</sup>, which will change ways of life. It will also bring new challenges and with them, a complex international debate regarding its economic, security and geopolitical implications.

### ***The economic dimension***

In the economic field, it is an industry that can offer high benefits, and, because of that, there is a 'race' for the development of this technology. Mobile technologies accounted for 4.4% of global GDP in 2016, worth \$3.3 trillion. By 2020, these technologies are estimated to report a total of \$4.2 trillion, representing 4.9% of global GDP.<sup>5</sup>

Currently, there are several companies holding patents in the 5G industry (the Chinese Huawei and ZTE, the European Nokia and Ericsson, the American Qualcomm and Intel or the South Korean Samsung and LG)<sup>6</sup>, but, in general terms, it is Huawei who is able to offer the more complete and cheaper installation today<sup>7</sup>. However, the debate around

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<sup>2</sup> "Towards 5G", *European Commission*, 19 December 2019, <https://ec.europa.eu/digital-single-market/en/towards-5g>

<sup>3</sup> SPRINGBORG, Morten, "The new Tech War and the geopolitics of 5G" *Worldwide Asset Management. Whitepaper* 2019 p. 2, [https://cworldwide.com/media/PDF/WP\\_2019\\_The\\_New\\_Tech\\_War\\_and\\_the\\_Geopolitics\\_of\\_5G.pdf](https://cworldwide.com/media/PDF/WP_2019_The_New_Tech_War_and_the_Geopolitics_of_5G.pdf)

<sup>4</sup> TRIOLO, Paul and ALLISON, Kevin, "The Geopolitics of 5G", *Eurasia Group*, 15 November 2018, p. 3, <https://www.eurasiagroup.net/live-post/the-geopolitics-of-5g>

<sup>5</sup> HARRIS, Steve "The trillion dollar race: what 5G means to the global economy" *Orange Business Services*, November 5, 2018, <https://www.orange-business.com/en/blogs/trillion-dollar-race-what-5g-means-global-economy>

<sup>6</sup> IPytics "Who is leading the 5G patent race? A patent landscape analysis on declared 5G patents and 5G standards contributions" IPytics Report, November 2019, p. 4 [https://www.ipytics.com/wp-content/uploads/2019/01/Who-Leads-the-5G-Patent-Race\\_2019.pdf](https://www.ipytics.com/wp-content/uploads/2019/01/Who-Leads-the-5G-Patent-Race_2019.pdf)

<sup>7</sup> SENDAGORTA, Fidel, "The Triangle in the Long Game", *Belfer Center for Science and International*

patents and the 'race' for the development of this technology can be misleading<sup>8</sup>. Although it can be useful politically speaking, it is often unclear who is at the forefront<sup>9</sup> because it is a very complex technology that has many different components.

In addition, many countries' networks and telecommunications systems are Huawei's, such as the United Kingdom, Germany and Spain, for example. Just the fact of dismantling them would be very costly and disruptive<sup>10</sup>. This puts Huawei in an advantageous position from a market point of view<sup>11</sup>.

It should also be considered that these networks will be supported by countless industries and applications —such as driverless cars or advanced factory automation— which will quite possibly be the largest source of economic and political benefits derivatives of 5G<sup>12</sup>. Therefore, for European countries, leaving Chinese companies out of their networks means being late for the implementation of these infrastructures and, consequently, also arriving later on to the development of these applications<sup>13</sup>.

### ***The security dimensions***

On the other hand, a relevant effect of 5G confrontation for European countries has been the transformation of an economic issue into a national security issue. Now, the European countries find themselves in a position where they will have to calculate very well every decision they make regarding technological partnership with China. Is in the possible security risks that the implementation of networks of Chinese origin can pose, where the US has focused<sup>14</sup>. It has done so by pointing out that Huawei and ZTE

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*Affairs, Harvard Kennedy School*, 19 June 2019, p. 56, <https://www.belfercenter.org/publication/triangle-long-game>

<sup>8</sup> PETERSSON, Christina "Why you shouldn't believe everything you read about 5G patents" *Ericsson*, October 11, 2019, <https://www.ericsson.com/en/blog/2019/10/5G-patent-leadership>

<sup>9</sup> SEGAL, Adam "China Is Moving Quickly on 5G, but the United States Is Not Out of the Game" *European Council on Foreign Relations*, November 3, 2019, [https://www.cfr.org/blog/china-moving-quickly-5g-united-states-not-out-game?utm\\_source=li&utm\\_content=110519&utm\\_medium=social\\_owned](https://www.cfr.org/blog/china-moving-quickly-5g-united-states-not-out-game?utm_source=li&utm_content=110519&utm_medium=social_owned)

<sup>10</sup> RACHMAN, Gideo "Why Europe will choose the US over China" *Financial Times*, December 9, 2019. <https://www.ft.com/content/d6ec28de-1a61-11ea-9186-7348c2f183af>

<sup>11</sup> SPRINGBORG, Morten, "The new Tech War and the geopolitics of 5G" p.6

<sup>12</sup> TRIOLO, Paul and ALLISON, Kevin, "The Geopolitics of 5G" p. 18

<sup>13</sup> SPRINGBORG, Morten, "The new Tech War and the geopolitics of 5G" p. 7

<sup>14</sup> SENDAGORTA, Fidel, "The Triangle in the Long Game" p.56

present risks to national security for their attempts to extract sensitive information and their direct links to the Beijing government. These accusations, as well as their consequent lobbying efforts on Brussels and European capitals, however, can be directly understood as a strategic move of Washington to remain as a leader in the global technology hierarchy<sup>15</sup>.

Meanwhile, Huawei has often stated the security of its networks, emphasizing that it has never installed 'backdoors' and that, although Chinese law requires it to collaborate with Beijing, this does not mean ability to violate laws of other countries.<sup>16</sup>

In response to this situation, the European Union sought to provide an objective answer to the debate on the security risks that the implementation of 5G networks may entail. It did so by carrying out the EU coordinated *risk assessment of the cybersecurity of 5G networks*.<sup>17</sup> The report, based on national assessments of the Member States, sought to identify risks, threats, vulnerable points and sensitive assets. The report ensures that there are new security challenges presented by these networks compared to those of previous generations. These also is related to the origin of the providers. Without mentioning Huawei, it concluded that, in the context of increased exposure to attacks facilitated by suppliers<sup>18</sup>, the risk profile of each supplier will be especially important. That a great dependence on a single supplier increases exposure to a possible supply disruption. And that threats to network availability and integrity will become serious security concerns.

The EU had identified the importance of 5G networks early: it has been developing different initiatives to develop them since 2013 and has a 2016 action plan. However, it was not until 2019 that he decided to assess the risks posed by them. The decision coincided both with the debate on network security between Washington and Beijing and with the change of narrative towards China that was expressed in the *EU-China*

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<sup>15</sup> RODRIGUEZ, Andrea G. "Huawei and 5G Geopolitics" *The World Order*, March 31, 2019, <https://elordenmundial.com/huawei-y-la-geopolitica-del-5g/>

<sup>16</sup> ALARCÓN, Nacho "Europa aumenta la alerta sobre los riesgos de que China se 'cuele' en el 5G de Huawei" *The Confidential*, December 3, 2019, [https://www.elconfidencial.com/tecnologia/2019-12-03/huawei-europa-5g-telecomunicaciones\\_2363540/](https://www.elconfidencial.com/tecnologia/2019-12-03/huawei-europa-5g-telecomunicaciones_2363540/)

<sup>17</sup> NIS Cooperation Group, "EU coordinated risk assessment of the cybersecurity of 5G networks" Report, October 9, 2019, <https://ec.europa.eu/digital-single-market/en/news/eu-wide-coordinated-risk-assessment-5g-networks-security>

<sup>18</sup> Idem p. 22.

*Strategic Outlook*<sup>19</sup>, when Beijing was labelled as an ‘economic competitor in achieving technological leadership’ and ‘systemic rival in promoting alternative models of governance’.

This porosity of economic and geopolitical debates would have been accentuated in the last decade by the rise of China. Before Beijing economically surpassed the United States by various indicators, and with neoclassical economic thinking prevailing in the international sphere, economic decisions were based exclusively on *win-win*. Increasingly, however, the economic decisions made by both powers ‘are going to have less to do with the idea of efficiency and more with the idea of power’<sup>20</sup>.

### ***The geopolitical dimension***

It is in this idea of power where the key to the debate around 5G lies. If we understand geopolitics—a term used in multiple ways—with the definition of Yves Lacoste<sup>21</sup> ‘the term geopolitics refers in practice to everything related to rivalries for power or influence over certain territories and their populations’, the race for patents and subsequent installation of 5G networks is a geopolitical competition. Why? The term *power* is also broad, but when talking about States (or the European Union), it is to be understood that, a technology that entails high economic benefits and whose installation can pose risks to national security, is directly linked to power. In addition, many applications will be set on it that will relate to other facets of power: defense, intelligence, energy supply...

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<sup>19</sup> "5G Action Plan for Europe" *European Commission*, December 19, 2019, <https://ec.europa.eu/digital-single-market/en/5g-europe-action-plan>

<sup>20</sup> STEINBERG, Federico in Real Instituto Elcano “El papel de la Unión Europea en la guerra tecnológica y comercial” Youtube video, 1:21:52, published on June 28, 2019, <https://www.youtube.com/watch?v=N1WVQt1X58>

<sup>21</sup> LACOSTE, Yves. *Geopolítica. La larga historia del presente*. (Madrid: Editorial Synthesis, 2008) p.8

Moreover, in this Fourth Industrial Revolution we venture to, technology has become the 'new frontier of power'<sup>22</sup>. In the European Commission's think tank, *European Political Strategy Centre*,<sup>23</sup> they have it clear: In the 21st century, anyone who controls digital technology will increasingly get economic, social and political influence. We are in a context of 'geopoliticization of technology'<sup>24</sup>.

In the present scenario of tension between the United States and China, and as 5G networks are a strategic industry, these have become 'an important battleground for in the China-U.S. confrontation over the future of the new technologies.' With some echoes of the Cold War, both actors seek to increase their areas of influence, thus, creating new dependencies. China is becoming a technology power, and the United States is doing its best to slow down the process.<sup>25</sup>

This situation puts the European Union in a difficult position. In normal situations<sup>26</sup> — especially on national security issues, such as this one— the European Union would make decisions in line with the United States, but this scenario is new, and what happens in the fight for supremacy for the 5G can be a precursor to future security partnerships. In the face of this situation, what options does Europe have? What is clear is that the decision around 5G is 'probably the first of many awkward decisions for Europe'.<sup>27</sup>

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<sup>22</sup> SOLER I LECHA, Eduard "El mundo en 2020: diez temas que marcarán la agenda global" *Cidob* 12/2019,

[https://www.cidob.org/publicaciones/serie\\_de\\_publicacion/notes\\_internacionals/n1\\_220/el\\_mundo\\_en\\_20\\_20\\_diez\\_temas\\_que\\_marcaran\\_la\\_agenda\\_global](https://www.cidob.org/publicaciones/serie_de_publicacion/notes_internacionals/n1_220/el_mundo_en_20_20_diez_temas_que_marcaran_la_agenda_global)

<sup>23</sup> European Political Strategy Centre, "Rethinking Strategic Autonomy in the Digital Age", EPEC, Issue 30, June 2019 p. 1  
[https://ec.europa.eu/epsc/sites/epsc/files/epsc\\_strategic\\_note\\_issue30\\_strategic\\_autonomy.pdf](https://ec.europa.eu/epsc/sites/epsc/files/epsc_strategic_note_issue30_strategic_autonomy.pdf)

<sup>24</sup> European Political Strategy Centre, "Rethinking Strategic Autonomy in the Digital Age", p. 1

<sup>25</sup> ARTEAGA, "La UE ya tiene una evaluación de los riesgos 5G, ahora falta tomar medidas" *Comentario Elcano* 28/2019. *Real Instituto Elcano*. November 12, 2019,  
[http://www.realinstitutoelcano.org/wps/portal/rielcano\\_es/contenido?WCM\\_GLOBAL\\_CONTEXT=/elcano/elcano\\_es/zonas\\_es/comentario-arteaga-ue-ya-tiene-evaluacion-de-riesgos-5g](http://www.realinstitutoelcano.org/wps/portal/rielcano_es/contenido?WCM_GLOBAL_CONTEXT=/elcano/elcano_es/zonas_es/comentario-arteaga-ue-ya-tiene-evaluacion-de-riesgos-5g)

<sup>26</sup> SPRINGBORG, Morten, "The new Tech War and the geopolitics of 5G", p. 2

<sup>27</sup> GIDEO RACHMAN "Why Europe will choose the US over China"

### ***China's strategy***

For the EU Member States to make an informed and consistent decision about Huawei's networks, it is not enough to analyze the risks to security in technical key, it is also important to understand the actor behind it.

### ***China and the geopolitics of technology***

China is becoming a power with a fundamental role in innovation. Combining state planning with focused promoted initiatives aimed at very specific areas, such as robotics, biotechnology, or telecommunications. This, together with its enormous size and population, has resulted in exponential growth that has brought China to the forefront, with ambitions to dominate the technological sphere in many areas<sup>28</sup>.

For China, missing out the Industrial Revolution resulted in the so-called 'century of humiliation'<sup>29</sup>. Who calls itself the Center Empire (中国), suffered a severe shock that continues in the collective imagination? They learned the lesson and rapid technological development of the last four decades cannot be understood without the 19th century and the wound it left on national pride. With the birth of the People's Republic of China, Mao enacted 'the Chinese people have risen,' but 1949's China was an underdeveloped country with no military nor technological capability<sup>30</sup>. It took a long time —enhanced by the economic opening enacted by Deng Xiaoping in 1978 and Xi Jinping's determination since taking office as president of the People's Republic of China in 2013— for this 'uprising' to begin to bear fruit.

To understand the Chinese development of recent decades, we must also understand that China has a very different strategic culture than the West does. Its long history has left the idea that not all problems have a solution and that trying to control every specific event that happens is counterproductive. Instead of taking a risk to all-or-nothing confrontations, they resort to elaborate and very long-term strategies<sup>31</sup>.

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<sup>28</sup> BURROWS, Mathew J., "China and the United States." Manning, Robert A. and Engelke, Peter "The global innovation sweepstakes: a quest to win the future" p. 4

<sup>29</sup> BREGOLAT, Eugene "Prólogo". In PARRA PÉREZ, Agueda. *China, las rutas del poder*. (Madrid: Águeda Parra Pérez, 2019)

<sup>30</sup> KISSINGER, Henry. *China*. (Barcelona: Penguin Random House Editorial Group, 2017) p. 116.

<sup>31</sup> Idem p. 42-43.



The ruling dynasties —and the case of the present *Communist Dynasty* is no different— have always been convinced that those that work best are those that last for 300 years. This has been the case, for example, of the Tang (618–907), Song (960–1279), Ming (1368–1644), and Qing (1644–1911) dynasties<sup>32</sup>. The first 100 years are of ascent, the next 100 are maintenance of the level reached and the last 100 years would be marked by decline, divisions... The Chinese Communist Party considers that they are in the first period of 100 years<sup>33</sup>. The century began in 1949 with the founding of the People's Republic of China and 2049 is a key date for them.

China is currently building a strong and rich country 'that no one can ever humiliate again.'<sup>34</sup> And so, it's not going to give up technological innovation. It is immersed in a change in its development model, from one based on investment, manufacturing and export, to one based on services, consumption and innovation. In this way, the role of technology will be decisive. R&D spending figures speak for themselves, from 2012 to 2017 they increased by 70.9%<sup>35</sup>. And, in 2016, they exceeded EU spending on this issue in relative terms, allocating 2.1% of GDP compared to 1.9 out of 28<sup>36</sup> at the time<sup>37</sup>.

In addition, China began to push its *Go Global* strategy in 1999 with the idea of taking advantage of the international markets. To do this, Beijing encouraged various companies to create 'global champions'<sup>38</sup>. Huawei was one of the beneficiary companies.<sup>39</sup>

Today, these technological 'champions' are the cornerstone of their strategy regarding the geopolitization of technology<sup>40</sup>. China's industrial policy, defined in the 'Made in

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<sup>32</sup> VA. *Historia Universal. Tomo 12: Asia y África negra* (Madrid: Salvat, 2004) p. 181.

<sup>33</sup> OTERO, Miguel at Real Instituto Elcano "The role of the European Union in the technological and trade war".

<sup>34</sup> BREGOLAT, Eugenio "Pólogo".

<sup>35</sup> PARRA PÉREZ, Águeda. *China, las rutas de poder*. Madrid: Agueda Para Pérez, 2019 p. 98.

<sup>36</sup> Idem p. 99.

<sup>37</sup> The World Bank only has data up to 2017: China: 2.12%, EU: 2.06%.

<sup>38</sup> China Policy, "China Going Global between ambition and capacity", *China Policy*, 2017, <https://policycn.com/wp-content/uploads/2017/05/2017-Chinas-going-global-strategy.pdf>

<sup>39</sup> PARRA, Agueda "La carrera por el liderazgo de Huawei por el 5G" *4Asia*, October 8, 2019, <http://4asia.es/2019/10/08/the-asian-door-la-carrera-por-el-liderazgo-de-huawei-por-el-5g-agueda-parra/>

<sup>40</sup> ARAYA, Daniel "Chinas Grand Strategy"

China 2025' strategy, is clearly intended to turn China into a global high-tech superpower through billion-dollar R&D investments in numerous fields.

5G plays a key role in this strategy, as highlighted both in the 'Made in China 2025' plan itself, where, on the specific issue of these networks 'making progress in fifth-generation mobile communication'<sup>41</sup> was stipulated, as in the 13th Five-Year Plan (2016-2020)<sup>42</sup> where they describe 5G as an 'emerging strategic industry' and a 'new area of growth'.

China's time has come. They are now the best positioned actor to implement these networks with their consequent benefits:

- To play a key role in the development of technologies that rely on these networks and their export to third countries through the Digital Silk Road<sup>43</sup>.
- To play a key role in digital governance and in the creation of global digital architecture<sup>44</sup>.
- To project its power on a global scale. Being the first to install it, improves its image in regions where it carries out a *soft power diplomacy*<sup>45</sup>, as is the case in the EU.

### ***China's strategy to the European Union***

China is officially in favour of the process of European integration. This has been stated in China's main policy papers towards the EU since 2003, the year of the establishment of the EU-China strategic alliance<sup>46</sup>.

The first of these documents, the 2003<sup>47</sup> one, stated 'History has proven that the establishment of diplomatic relations between China and the European Economic

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<sup>41</sup> WOYKE, Elizabeth "China is racing ahead in 5G. Here's what that means."

<sup>42</sup> Central Committee of the Communist Party of China, "The 13th five-year plan for economic and social development of the People's Republic of China (2016–2020)", Beijing, 2016, [https://en.ndrc.gov.cn/newsrelease\\_8232/201612/P020191101481868235378.pdf](https://en.ndrc.gov.cn/newsrelease_8232/201612/P020191101481868235378.pdf)

<sup>43</sup> TRIOLO, Paul and ALLISON, Kevin, "The Geopolitics of 5G," p. 13

<sup>44</sup> Shi-Kupfer, Kristin and Ohlberg, Mareike "China's Digital Rise Challenges for Europe", *MERICs*, Mercator *Institute for China Studies*, No7, April 2019, <https://www.merics.org/en/papers-on-china/chinas-digital-rise>

<sup>45</sup> TRIOLO, Paul and ALLISON, Kevin, "The Geopolitics of 5G," p. 13.

<sup>46</sup> MAHER, Richard "The elusive EU-China strategic partnership" *International affairs*, 2016, Vol. 92, No. 4, pp. 959-976 p. 959

<sup>47</sup> Ministry of Foreign Affairs of the People's republic of China, "China's EU policy paper", October 2003, [https://www.fmprc.gov.cn/mfa\\_eng/topics\\_665678/ceupp\\_665916/t27708.shtml](https://www.fmprc.gov.cn/mfa_eng/topics_665678/ceupp_665916/t27708.shtml)

Community in 1975 has served the interests of both actors'. At the time, China was confident that Europe, which was its first trading partner, could be able to become a globally autonomous player, independent of the United States. Experience proved that Brussels was not going to make awkward decisions for Washington, and Beijing would shift its strategy to bilateralism with European capitals<sup>48</sup>. In any case, the official discourse remained pro-EU.

But, what about its concrete policies? These went in a different direction. China is striving to improve its bilateral relations with Member States directly, emphasizing on the periphery<sup>49</sup>. Focused on its own interests and ignoring EU rules. As it happened with Russia and its geoeconomic instrumentalization of energy resources<sup>50</sup> and its preference for bilateral relations<sup>51</sup> following a *divide et impera* strategy, China would be articulating its state capitalism to strategically invest and skew the market. Thus, its approach to each Member State is different.

China is already the largest investor in Europe, having surpassed the United States in 2016<sup>52</sup>, and its economic influence can be felt within the EU, with the calculation and different treatment of countries that need or not China's investment<sup>53</sup>. Concrete actions such as investment projects, the One Belt One Road initiative (OBOR), or the approach to subregional groups such as the 16+1 initiative (17 since Greece was joined) have shown major divisions within the EU. And this has influenced the difficulties of reaching cohesive positions. That is why some Member States have warned that this situation

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<sup>48</sup> RÍOS, Xulio, , "Los tira y afloja China-UE" *La Vanguardia*, May 9, 2019, <https://www.lavanguardia.com/vanguardia-dossier/20190509/462124783869/elecciones-europeas-europa-en-juego-china-ue.html>

<sup>49</sup> GODEMENT, Francois and VASSELIER, Abigal "China at the gates: A new power audit of EU-China relations" *European Council on Foreign Relations*, December 2017, p.7 [https://www.ecfr.eu/publications/summary/china\\_eu\\_power\\_audit7242](https://www.ecfr.eu/publications/summary/china_eu_power_audit7242)

<sup>50</sup> BLACKWILL, Robert D. and HARRIS, Jennifer M. *War by other means: Geoeconomics and statecraft*, (Massachusetts: Harvard University Press., 2016)

<sup>51</sup> MANNKOFF, Jeffrey "Eurasian Energy Security" Council Special Report No. 43 *Council on Foreign Relations*. February 2009 p. 14

<sup>52</sup> RÍOS, Xulio, "Los tira y afloja China-UE"

<sup>53</sup> GODEMENT, Francois and VASSELIER, "China at the gates. A new power audit of EU-China relations"

can result in fractures within the Union<sup>54</sup>. Moreover, Germany has come to propose a 27+1 forum in 2020 during its presidency of the Council of the EU<sup>55</sup>.

OBOR is seen as a focus of potential division between members, especially between those who need foreign investment (South and East) and those who do not<sup>56</sup>. Thus, Hungary or Greece are often demarcating the mark on Community pronouncements, as happened in 2017 with the blockade of the EU's common position at the United Nations on Beijing's human rights violations<sup>57</sup>.

17+1 formula is also a good example of this strategy. Their offer would be like that offered elsewhere on the planet, as to many African nations, for example. It is a soft power diplomacy—based on positive and repetitive messages—which is characterized by a wide range of projects and loans that creates competition between potential recipients. In addition to political and economic lobbying activities, especially in those states that are a member of the European Union. These are countries with lower income and infrastructure levels than the Community average. This, moreover, in the context of the populist boom in states in the region with anti-European discourses, also facilitates the rapprochement with other partners outside the Union's umbrella<sup>58</sup>.

While eastern Europe offers a good platform to settle for influence, it is in the north and west that China's largest investments are found, where the most powerful companies and the most stable states are located. It is there, highlighting Germany and France<sup>59</sup>, where they have concentrated a great deal of investment by acquiring shares of various

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<sup>54</sup> RÍOS, Xulio, "Los tira y afloja China-UE"

<sup>55</sup> ESTEBAN, Mario et al. "Europe in the Face of US-China Rivalry" *European Think-tank Network on China (ETNC)* January 2020 p. 27, [http://www.realinstitutoelcano.org/wps/portal/rielcano\\_en/publication?WCM\\_GLOBAL\\_CONTEXT=/elcano/elcano\\_in/publications/etnc-europe-in-the-face-of-us-china-rivalry](http://www.realinstitutoelcano.org/wps/portal/rielcano_en/publication?WCM_GLOBAL_CONTEXT=/elcano/elcano_in/publications/etnc-europe-in-the-face-of-us-china-rivalry)

<sup>56</sup> RÍOS, Xulio, "Los tira y afloja China-UE"

<sup>57</sup> EMMOTT, Robin "Greece blocks EU statement on China human rights at U.N." *Reuters*, June 18, 2017, <https://www.reuters.com/article/us-eu-un-rights/greece-blocks-eu-statement-on-china-human-rights-at-u-n-idUSKBN1990FP>

<sup>58</sup> ARANCÓN, Fernando "La Ruta de la Seda china pone los ojos en Europa" *El Orden Mundial*, 19 de marzo de 2019, <https://elordenmundial.com/la-ruta-de-la-seda-china-pone-los-ojos-en-europa/>

<sup>59</sup> HANEMANN, Thilo et al. "Chinese FDI in Europe: 2018 trends and impact of new screening policies" *Rhodium Group (RHG) and the Mercator Institute for China Studies*, March 6, 2019, <https://www.merics.org/en/papers-on-china/chinese-fdi-in-europe-2018>

companies in strategic sectors. Especially in logistics companies, infrastructure sands and high-tech industry<sup>60</sup>.

### The role of the European Union

With the new changes on the international stage, the EU must rethink its role in the world. Before, without strategic autonomy or a truly functional Common Security and Foreign Policy, 'all too often, the European Union is unable to set its stance on international policy issues that pose very serious problems,'<sup>61</sup> in Josep Borrell's words. We were relatively comfortable under the US umbrella in a liberal international order. But this has changed.

The world turns to a scenario of geopolitical competition that puts at risk, on the one hand, the ability of Member States to defend their interests and values. On the other hand, the EU's relevance as a global player, since the pillars on which it based its influence: promotion of multilateralism, political values lose relevance on a global scale. While the Union's trade power also does so.

European countries are increasingly vulnerable<sup>62</sup> to external pressures that prevent them from exercising their sovereignty. And that threatens many sectors, including security, economy and geopolitics. Maintaining independence in a world of geopolitical competence and addressing the mixed challenges that other powers present, such as the development and implementation of 5G networks, must be deeply dealt with.

We are at a critical moment: the decisions the EU makes in the coming years will determine whether we become 'ball —or worse, balls— with which the powers would play,'<sup>63</sup> or another edge of the 'triangle in long-term play'<sup>64</sup>.

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<sup>60</sup> RÍOS, Xulio, "Los tira y afloja China-UE"

<sup>61</sup> BORRELL, Josep "Como hacer más eficaz la política exterior de la UE" *República de la Ideas* March 14, 2019, <https://www.republica.com/cronicas-de-europa/2019/03/14/como-hacer-mas-eficaz-la-politica-exterior-de-la-ue/>

<sup>62</sup> LEONARD, Mark and SHAPIRO, Jeremy "Strategic sovereignty: How Europe can regain the capacity to act"

<sup>63</sup> LEISEGANG, Daniel, "Listen up: Huawei, 5G and the new geopolitics" *The German Times*, April 2019, <http://www.german-times.com/listen-up-huawei-5g-and-the-new-geopolitics/>

<sup>64</sup> SENDAGORTA, Fidel, "The Triangle in the Long Game",

### ***The EU-China relations seen from Europe***

The then European Economic Community began diplomatic relations with the People's Republic of China in 1975. It was an economic and political decision. On the one hand, it was looking for the economic benefits that China could offer. On the other hand, the thinking prevailing in the Old Continent, following the theory of modernization<sup>65</sup>, was that openness and consequent economic growth would end up leading to a political and economic model more like Western liberal democracies. With China's entry into the WTO in 2001 and the aforementioned strategic alliance with the EU in 2003, led to the idea that China could go in that direction, but the facts have shown that this was not the case.

However, after years of scrutiny and warning calls on the unfair trade practices Beijing applies, and in view of its economic boom and its increasingly leading role in the global sphere<sup>66</sup>, the EU redefined its relations with Beijing in March 2019 with the above-mentioned *EU-China Strategic Outlook*. The change of narrative responded to the concern<sup>67</sup> generated by China's fast development, the internationalization of its companies in strategic sectors in a closed or slightly open way and the fact that it has driven technological development in key sectors for the Fourth Industrial Revolution, such as 5G networks. Besides, it is in keeping with the United States.

The report stated that 'China can no longer be considered a developing country. It is a world leader and a technological power.'<sup>68</sup> An affirmation that expresses a desire to end the asymmetrical rules that had been previously allowed.

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<sup>65</sup> POWELL, Charles at Royal Elcano Institute "El papel de la Unión Europea en la guerra tecnológica y comercial"

<sup>66</sup> ESTEBAN, Mario and ARMANINI, Ugo, "Strategic autonomy in a new era: a Cold-War risk assessment of China's involvement in the EU's 5G networks" *Royal Elcano Institute*, ARI 89/2019 , 6 August 2019, [http://www.realinstitutoelcano.org/wps/portal/rielcano\\_en/contenido?WCM\\_GLOBAL\\_CONTEXT=/elcano/elcano\\_in/zonas\\_in/ari89-2019-armani-esteban-strategic-autonomy-new-era-cold-war-risk-assessment-china-involvement-eu-5g-networks](http://www.realinstitutoelcano.org/wps/portal/rielcano_en/contenido?WCM_GLOBAL_CONTEXT=/elcano/elcano_in/zonas_in/ari89-2019-armani-esteban-strategic-autonomy-new-era-cold-war-risk-assessment-china-involvement-eu-5g-networks)

<sup>67</sup> Esteban, Mario and Otero-Iglesias, Miguel "La política europea frente al desafío chino" *Real Instituto Elcano* Comentario 7/2019 3 April 2019. [http://www.realinstitutoelcano.org/wps/portal/rielcano\\_es/contenido?WCM\\_GLOBAL\\_CONTEXT=/elcano/elcano\\_es/zonas\\_es/asia-pacifico/comentario-esteban-oteroiglesias-politica-europea-frente-al-desafio-chino](http://www.realinstitutoelcano.org/wps/portal/rielcano_es/contenido?WCM_GLOBAL_CONTEXT=/elcano/elcano_es/zonas_es/asia-pacifico/comentario-esteban-oteroiglesias-politica-europea-frente-al-desafio-chino)

<sup>68</sup> European Commission, "Joint communication to the European Parliament, the European Council and the EU-China Council – A strategic outlook" p. 1.

What the report also said is that China, in addition to the above-mentioned 'economic competitor (...)' and 'systemic rival (...)', is that it is 'a negotiating partner with which the EU needs to find a balance of interests'. And it is in that interest balance where we are. A balance that takes place, to make things more difficult, in the context of China-U.S. rivalry.

However, this statement does not mean that the debate on the EU's role in relation to China has been closed, nor that specific policies or actions were developed, at least for the time being. However, three different positions can be identified among Member States on how to respond to China in general terms<sup>69</sup>.

First, there would be the states driving a more assertive turn of the EU's policy towards China: France and Germany. More concerned about the geostrategic implications of China's rise, they advocate the creation of 'European champions,' as they showed after the Commission's refusal to merge railway giants Alstom and Siemens. However, it is a controversial proposition and this case exposed it. Such a 'champion', *a priori*, would make us more competitive on a global scale. At the end of the day, the two technological powers of the moment have these 'champions'<sup>70</sup>. But it opens the debate about our own idiosyncrasies: economic liberalism and free competition are key EU values.

Second, there would be those countries that, while sharing these concerns, are reluctant to the economic interventionism of the previous point of view. We are talking about a group formerly led by the United Kingdom of which the Nordics and the Netherlands would also take part.

Finally, there would be a third group of countries, those from southern and eastern Europe, which advocate for further economic ties with Beijing. These are countries with greater financial difficulties, so they are more interested in Chinese investments and financing. There would also be more political reasons in this regard, such as governments with frictions with Germany, France or the Commission itself, such as Greece or Hungary.

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<sup>69</sup> Mario Esteban and Miguel Otero-Iglesias "La política europea frente al desafío chino"

<sup>70</sup> ALARCÓN, Nacho "Berlín y París piden cambiar las normas de la UE tras el veto a la fusión Alstom-Siemens " *The Confidential*, 19 February 2019, [https://www.elconfidencial.com/economia/2019-02-19/berlin-y-paris-responden-al-veto-a-la-fusion-alstom-siemens-pidiendo-una-revision-de-las-normas-de-competencia\\_1835130/](https://www.elconfidencial.com/economia/2019-02-19/berlin-y-paris-responden-al-veto-a-la-fusion-alstom-siemens-pidiendo-una-revision-de-las-normas-de-competencia_1835130/)

But the scenario is not so simple, even those who advocate more assertive of European policy towards China also advocate further deepening political and economic relations with Beijing. Failure to veto Chinese 5G networks as the United States is openly searching for and subjecting it to common risk analysis is proof of this. Right now, the EU is broadly facing 4 possible options<sup>71</sup>: Maintaining or strengthening the alliance with the United States in this new scenario, allying with China for economic reasons, having each state calibrate its options separately or act as a third pole. The latter option concerns achieving cohesion and strategic autonomy to be a major player in this new reality of geopolitical competence. It is the only possible scenario if we want to be an independent and relevant actor.

The current reality is that the dynamics among Member States are still fuzzy. States do not break with the U.S. alliance, but they continue to get close to Beijing as much as possible. Meanwhile, the new 'geopolitical' Commission has been established in Brussels. Moreover, the new head of European diplomacy declares that the EU must 'learn to use the language of power.'<sup>72</sup> In addition, there are voices<sup>73</sup> advocating to rethink strategic autonomy to the digital age.

### ***The EU and the geopolitics of technology***

Ericsson and Nokia have many patents for the implementation of 5G networks. In fact, Ericsson boasts of being the first company to supply these networks on 4 continents<sup>74</sup>. And, looking at technological innovation, some European countries are leaders in innovation, such as Sweden, Finland, or Denmark<sup>75</sup>. And yet European capitals have been embroiled in competition between two major powers, being pressured by both Washington and Beijing. With the United States coming to threaten the EU and its members with retaliation in intelligence or defense cooperation if they did not block

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<sup>71</sup> Mario Esteban and Miguel Otero-Iglesias "La política europea frente al desafío chino"

<sup>72</sup> Delage, Fernando, "Europa, ¿Potencia geopolítica?"

<sup>73</sup> "Rethinking Strategic Autonomy in the Digital Age"

<sup>74</sup> Ericsson "First with 5G on four continents. Explore our live networks below", Ericsson, [https://www.ericsson.com/en/5g?gclid=Cj0KCQiAyKrxBRDHARIsAKCzn8yaa1MgiLTewZ6XKR0J2wQJqT aiSfkKVx6H9pzmyiQX01pbbPyOaeAaAnq1EALw\\_wcB&qclsrc=aw.ds](https://www.ericsson.com/en/5g?gclid=Cj0KCQiAyKrxBRDHARIsAKCzn8yaa1MgiLTewZ6XKR0J2wQJqT aiSfkKVx6H9pzmyiQX01pbbPyOaeAaAnq1EALw_wcB&qclsrc=aw.ds)

<sup>75</sup> MERIT "European Innovation Scoreboard 2019" *European Union*, 2019, <https://ec.europa.eu/docsroom/documents/38781>



Huawei; and with China doing the same with economic measures if they vetoed it as requested by Washington<sup>76</sup>. The position of European capitals shows that we are far from being strategically autonomous.

The EU is not as competitive as it could be. The current situation proves it. But what's the problem? The lack of coordinated research funds is an important factor. They exist like *Horizon 2020*, which has a budget of almost 80,000 million €, but they are not at all enough to compete together on a global scale. Another problem is that, although there are many companies in the sector, very few are tech giants. Unlike the United States and China, none of Europe's richest companies belong to this sector<sup>77</sup>. China's strategy on this has already been briefly described. The United States, for its part, invests 2.8%<sup>78</sup> of GDP in research and development (2017) and innovation has played a key role in its National Security Strategies for years<sup>79</sup>. The only way to be relevant in this scenario is invest and develop a clear strategy, but first cohesion is needed.

So far, what has the EU done as a Union for the development of 5G? Although the choice of supplier and the deployment of these networks is the responsibility of the Member States, different joint initiatives have been launched. As the Public-Private Partnership in 5G<sup>80</sup> from 2013 or the aforementioned *Horizon 2020* program, which specifically supports 5G research. In addition, the European Commission established a 5G Action Plan<sup>81</sup> in 2016 setting a 2020 deadline for commercial launch in the Member States<sup>82</sup> and 2025 for comprehensive deployment on both transport routes and cities<sup>83</sup>.

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<sup>76</sup> RUHLIG, Tim et al. "5G and the US–China Tech Rivalry – a Test for Europe's Future in the Digital Age" *Swp*, Comment, 19 June 2019, p. 1 [https://www.swp-berlin.org/fileadmin/contents/products/comments/2019C29\\_job\\_EtAl.pdf](https://www.swp-berlin.org/fileadmin/contents/products/comments/2019C29_job_EtAl.pdf)

<sup>77</sup> KEMPE, Frederick "Foreword". In *The global innovation sweepstakes: a quest to win the future* ed. by Manning, Robert A. and Engelke, Peter (Washington: Atlantic Council, 2018) p. 6.

<sup>78</sup> <https://datos.bancomundial.org/indicador/GB.XPD.RSDV.GD.ZS> EU 2.06 China 2.12

<sup>79</sup> BAÑOS, Pedro, *El dominio Mundial. Elementos del poder y claves geopolíticas*, (Madrid: Editorial Planeta, 2018) p. 211.

<sup>80</sup> "5G PPP". *The 5G Infrastructure Public Private Partnership*, <https://5g-ppp.eu/>

<sup>81</sup> "5G for Europe: An Action Plan" , *European Commission*, <https://ec.europa.eu/digital-single-market/en/news/communication-5g-europe-action-plan-and-accompanying-staff-working-document>

<sup>82</sup> Idem.

<sup>83</sup> Idem p. 4.

In order to monitor the progress of the 5G Action Plan, the European Observatory 5G was established in 2018<sup>84</sup>.

In October 2019, the *EU coordinated risk assessment of the cybersecurity of 5G networks* report was published, assessing potential risks together. On 29 January 2020, the 'toolbox' of measures based on this analysis was published and envisages strengthening the capabilities of 5G and later technologies through programmes and funds. And to facilitate coordination between members and create a certification system to ensure safety in products and processes.

In short, the importance of 5G was detected on time and investment initiatives and situation monitoring emerged. And there are national companies from leading Member States in the development of these networks, such as Ericsson and Nokia. But this has not been enough to have autonomy. The initiatives were lukewarm, with sovereign states very focused on their national strategies. But now, as states are trying to take stock of their options, the debate on strategic autonomy is on the table, so that something like this does not happen again.

It has been understood that in order to compete with technological giants you need strategic autonomy. To do this, the first thing that is needed is a shared definition of the term and willingness to act, then coordination, investment and planning.

However, strategic autonomy necessarily must include technological autonomy. Because if technology plays a fundamental role in power, it has to be included in the term that refers to 'the ability of a political entity to follow its own path in international relations, that is, to set its own objectives and act according to them'<sup>85</sup>.

Therefore it is essential to rethink strategic paradigms, to reach a holistic approach and to make available to the project the necessary resources<sup>86</sup>. In the new geopolitical competition scenario in which technology plays a key role, it is what the main powers are doing. The 'first battleground' of competition in this regard, 5G, has shown that this is the new way to be globally competitive.

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<sup>84</sup> "European 5G Observatory" *European Commission*, <https://ec.europa.eu/digital-single-market/en/european-5g-observatory>

<sup>85</sup> "Rethinking Strategic Autonomy in the Digital Age" p. 1.

<sup>86</sup> Idem p. 17.

However, now the Member States are managing the situation in different ways, with their own relations with both powers. But despite the differences, there is one key point in common: All Member States continue to consider the United States its most important ally, while taking advantage of the benefits of building economic relations with China<sup>87</sup>.

In general, member state governments have been postponing the decision whether to choose the Chinese supplier, many in internal debates in their parliaments<sup>88</sup>. Trying to avoid taking sides in this geopolitical confrontation, while also trying to protect their own interests.

Reaching a consensus on China, with the dependencies that are created, is very difficult. We have an example with Russia, saving the distances. Despite efforts from the EU, narratives, or initiatives such as the Energy Security Strategy<sup>89</sup>, national interests took precedence over those of the Union. The construction of the controversial *Nord Stream 2* pipeline is good proof of this.

China is an immense country with a very clear strategy. The only way to be competitive and autonomous in this scenario is to work together. And this necessarily goes through strategic autonomy.

## Conclusions

1. The decision to whether to implement the infrastructure of Huawei's 5G networks, due to the power implications they have, is a geopolitical decision. Not just because of the economic benefits it brings, or the security risks it can entail. Also, because, in the context of structural confrontation and geopolitical competition between the United States and China, control of technology plays a fundamental role in power: it means influence in the economic, political and social spheres.

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<sup>87</sup> ESTEBAN, Mario et al. "Europe in the Face of US-China Rivalry" p. 15.

<sup>88</sup> OTERO, Miguel and ESTEBAN, Mario "Washington's War on Huawei Is Causing Angst in Madrid" *Foreign Policy*, 20 January 2020, <https://foreignpolicy.com/2020/01/20/spain-china-usa-washingtons-war-on-huawei-is-causing-angst-in-madrid/>

<sup>89</sup> Comisión Europea "Communication from the Commission to the European Parliament and the Council. European Energy Security Strategy". Brussels, 28.5.2014 COM, 2014, 330 final., <https://eur-lex.europa.eu/legal-content/ES/TXT/HTML/?uri=CELEX:52014DC0330&from=EN>

2. This decision is very difficult for Member States: Following the United States is expensive and technically disruptive. Besides that, it involves going against China, a very important trading partner for European capitals. Including Huawei in implementation is the economic logic and goes in line with China, but it goes against the United States, on whom we depend for our security and defence.
3. The scenario has changed. Economic benefits lose prominence over geopolitics on a global scale. The current dynamics of international relations are characterized by geopolitical competition in general, and structural competition between the United States and China in particular.
4. China follows a very clear strategy to act as a global power in which technological innovation plays a key role. This, together with the strategic importance that this sector also has in the United States, illustrates that in order to have autonomy and compete on a global scale, strategy and investment in technology are fundamental.
5. Chinese actions in Europe, such as investment in strategic sectors, the asymmetric economic relationship between China and The Member States, China's dependence on China as a trading partner, or subregional initiatives such as 17+1, are instrumentalized by China to gain influence.
6. Although Member States have different relations with China, there is a general consensus on the preference for the maintenance of the transatlantic alliance and the maintenance of China as a trading partner as far as possible. For the time being, each State, in broad terms, makes its decisions on this issue independently.
7. The pressures that European capitals have received on which supplier may or may not be used for the implementation of 5G networks highlight the EU's lack of strategic autonomy.
8. The way to be autonomous and competitive on a global scale is strategic autonomy. To do this, it is necessary, first, to redefine the term including the changes that technology has brought in relation to autonomy and power. Secondly, cohesion and will to joint action is needed, something that has so far been lacking. Perhaps the uncomfortable situation in which European capitals have been put in the wake of Huawei's veto, together with the willingness of Germany, France to move in this

direction, can serve as an incentive. If we got to this point, coordination, investment and planning would be needed.

9. Getting to this cohesion and willingness to take joint action is very complicated. Each state is sovereign and calibrates its interests. The fact that China's strategy exploits this reality makes the situation even more difficult for us. To achieve the cohesion necessary to be able to take ambitious measures. It is necessary to take concrete measures by focusing on both identity and economic levels.
10. If no action is taken in this direction, Member States will run the risk of being in the midst of this geopolitical competition between the United States and China, which will decide the rules of the game and subject Member States to pressures and situations such as that experienced with respect to 5G networks in the future.
11. We do not have the size or ability to be relevant actors separately. Given China's huge amounts of R&D investment, along with its state capitalism, it becomes very difficult for a single European state to compete alone.
12. However, adapting to this new reality also opens up the debate about whether it is compatible with our values or not competing by creating great 'champions'. We need to rethink our role in this scenario and look for formulas to be autonomous and competitive without giving up our values.

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