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## **The EU-China Digital Agenda and Connectivity**

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**Meri Beridze**



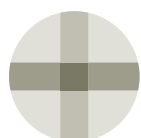
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**The EU-China digital Agenda and Connectivity**

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# Index of abbreviation

AI	Artificial Intelligence
AITISA	Artificial Intelligence Industry Technology Innovation Strategic Alliance
BAAI	Beijing Academy of Artificial Intelligence
BAT	Chinese giants Baidu, Tencent and Alibaba
BRI	Belt and Road Initiative
CAI	Comprehensive Agreement on Investment
CESTYS	Chinese Ministry of Science and Technology and the European Commission
CFM	Co-Funding Mechanism
CMI	Civil-Military integration
CPS	Comprehensive Strategic Partnership
CRE	China Railway Express
DEP	Digital Europe Program
DSR	Digital Silk Road
EU	European Union
GDPR	General Data Protection Regulation
ICT	Information and Communication Technology
MERICCS	Mercator Institute for China Studies
PRC	People's Republic of China
US	United States

# Introduction

## 1. Subject of the study

One of the most relevant issues related to the international society nowadays is the digital transformation that is completely changing the geopolitical situation, socio-economic environment and political objectives of the international actors. This transformation is driving a pace of change that we all see in our everyday lives. The technology and people ran into each other: artificial intelligence and algorithms are inserting themselves deeper into our lives and are everywhere. Even though we do not see them, they think and decide for us. The digital revolution is developing at such an incredible speed that the states with their societies have to adapt as quickly as possible.

Given this imaginative power of digital transformation and its possible benefits, geopolitical great powers have actively begun to compete for leadership in these ongoing processes. In the 21<sup>st</sup> century we witnessed an intense competition between China and the United States. Competition not only in the socio-economic-political sphere, but also in the field of digitalization, Artificial Intelligence (AI) and big data, which actually will shape the future of the world.

China has decided to focus on being the leader nation in digitalization processes by 2030 and is doing the necessary steps to reach this objective. United States also considers the digital transformation as a national interest but needs to do much more in order to stay the biggest innovator globally. One relatively large number of the literature analyzes the strategic rivalry between the United States and China and its implications for the rest of the world, including for the EU.

In this context, the analytical papers of Barbara Lippert, Volker Pethes<sup>1</sup> and Andres Ortega<sup>2</sup> are very important, as they explain main characteristics and the multidimensionality of these global actors and possible scenarios for development of digital transformation. Winston Ma is another decisive author who is demonstrating the current situation of digital war among above mentioned two great international actors and focuses on China's tech power that is shaping the future of AI and cyberspace.

In the context of the possible role of Europe in terms of international competition editors such as Mario Esteban and Miguel Otero-Iglesias along with Aleksandra Brzia-erenkova, Alice Ekman, Lucrezia Poggetti, Björn Jerdén, John Seaman and Tim Summers deserve special mentioning as they discuss the independent policies of each EU Member State with respect to both China and the US and reflect on existing conceptual differences among them.

The People's Republic of China (PRC) is one of the most important global powers and it is trying to achieve universal hegemony in a Chinese way in certain spheres, which undoubtedly means a strategic and ideological competition for the US. China wants to overtake the United States and achieve economic, commercial, technological and hence cultural and ideological dominance. This issue is another important focus of other segment of the literature. The Mercator Institute for China Studies (MERICS), more specifically authors like Jost Wübbeke, Mirjam Meissner, Max J. Zenglein, Jost Wübbeke, Mirjam Meissner, Max J. Zenglein, Jaqueline Ives and Björn Conrad, among others, are discussing various initiatives of the Chinese government which aims to achieve the above mentioned objectives. Clyton Cheney and Grzegorz Stec's papers about China's Digital Silk Road is another noteworthy example, as it examines strategic technological characteristics of digital dimension of China.

Important part of the literature is devoted specifically to the EU digital transformation plan and strategy. Such authors as Jorge E. Pérez Martínez, José Félix Hernández-Gil Gómez, Félix Arteaga Martín and Luis Martín

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1 LIPPERT, B., & PETHES, V., Strategic Rivalry between United States and China. Causes, Trajectories, and Implications for Europe [online]. *SWP Research Paper* [Access date: May 3, 2021]. DOI: 10.18449/2020RP04. Available from: [https://www.swp-berlin.org/fileadmin/contents/products/research\\_papers/2020RP04\\_China\\_USA.pdf](https://www.swp-berlin.org/fileadmin/contents/products/research_papers/2020RP04_China_USA.pdf)

2 ORTEGA, A., The U.S.-China Race and the Fate of Transatlantic Relations, Tech, Values, and Competition *Center for Strategic & International Studies* [online]. January 2019, pp. 1-15. [Access date: May 3, 2021]. Available from: [https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/200113\\_USChinaTransatlanticRelations.pdf](https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/200113_USChinaTransatlanticRelations.pdf)

Núñez among others are analyzing the main characteristics of the EU'S digital future, its conceptual strategy and concrete steps. In this context, the paper of Heidi Vironen and Stefan Kah is also noteworthy, because they discuss some challenges the EU and member states face in the process of digital and technological transformation.

Relations between the EU and China are mainly characterized by multidimensionality. This means that China on some issues is a competitor for the Union, for example, in the economic or trade sphere, while on some issues, such as climate change or other environmental affairs, the EU can cooperate with China, and on others, they could be opponents or even more – enemies to each other. Examination of the existing bibliography has shown that the digital dimension of this multidimensionality of relations among the EU and China suffers a lack of information in the academic framework. Many resources are focused on the strategies of each of these actors individually, although little is said about the perspectives of their possible cooperation, despite the existing conceptual differences. If we look at the position of the EU in the digital transformation, we will see that it makes a huge use of a wide range of digital technologies, it is a heavy user but not the leading producer of the latter. The EU and China, the two radically different political, economic and social societies perceive this digital transformation phase in a completely different way, but still with some common emphasis, which is interesting to observe.

This Master Dissertation will try to fill this existing gap in the literature and will ask the following question: What is the possible dimension of the EU-China's connectivity in terms of digital transformation? Regarding this question, we may cite the following hypothesis:

In the framework of digital transformation it is important to shape the role of the EU as an international actor, independent from the US-China rivalry.

China's digital ambitions should not be viewed as purely economic or civilian exercises, rather than the combination of economic goals with broader normative and security aims.

Beside many existing structural differences among the EU and China, in terms of digital transformation still there are some areas for possible collaboration on the base of reciprocity.

## 2. Methodology

The research method used in this paper is deductive, since its approach involves developing a theory and hypothesis and then design a concrete research strategy to test it. More specifically, the theory is that in the new era of global digital transformation, digital realm can be potential framework for the collaboration among international actors such as China and the EU, and the collected data with relevant analysis explains casual interdependence among variables, thus it tries to test the theory. On the other hand, scientific research for the relevant data is done following the qualitative method and the analytical method by which the paper analyzes the primary and secondary sources, relevant to the investigation and research topic. It should also be noted, that the investigation field is quite novel in the international agenda and still in the process of evolution. There is already some sort of analytical studies, official data about it and probable developments, however this is not yet the final version, since in the new digital age each actor's strategy is exposed daily to different changes and features.

## 3. Sources

The paper's investigation and analysis are based on both, primary and secondary sources.

In this context, primary sources, decisions and recommendations made by the European Commission which are largely implemented in second chapter are particularly important as they discuss the European Digital Transformation Strategy and its key features. On the other hand, relevant primary sources, as, for example, decisions made by the Chinese State Council on China's digital transformation, technological innovation and other important dimensions are used in the third chapter of the paper. One of the most important sources of the research is the informational interview with Irakli Beridze, the Head of the Centre for Artificial



Intelligence and Robotics at UNICRI, United Nations. In the interview, the expert spoke about the different digital strategies of China and the West, their main features and dimensions, as well as highlighted some of the shortcomings in China that may become a hindering circumstance for the latter. Mr. Irakli Beridze also mentioned the prospects of possible cooperation between China and the European Union. This primary source, along with other resources, played an important role in drawing the final conclusions and solving the above mentioned hypotheses.

Regarding the secondary sources, numerous doctrinal and research works have been used in this investigation. As already mentioned above, one important part of them discuss the global economic, ideological and most importantly, digital competition between the US and China and the possible role of the EU in this rivalry. The other part of the analysts describes the EU's independent digital strategy, while the rest of the papers are devoted to figure out the main features of the Chinese digital transformation.

Finally, a series of complementary sources have been used to provide factual information on specific important issues. Most of these sources are digital newspapers and magazines that contain specific facts and news, which are necessary in the process of the investigation. Moreover, in the second and third chapters' primary sources such as institutional conclusions and parliamentary statements also are used.

## 4. Structure

In order to answer the main question of the investigation as well as resolve the above-mentioned hypotheses, the paper is divided into four main chapters, the logical course of which allows us to reach the relevant conclusions.

The first chapter deals with one of the most important issues of the modern global geopolitical situation, which is the economic, ideological, political and, most importantly, digital competition between the United States and China.

A proper understanding and analysis of the concept of this competition is essential to better explain the global digital dimension and the bilateral relationship between the EU and China in the future context. Given that this rivalry is not only in an economic framework, rather involves ideological and cultural aspects, also keeping in mind that this controversy may have tremendous implications and consequences for the future of the international politics and economy, it is important to know the general conception of the above mentioned issue. Sino-American rivalry directly and indirectly affects the strategy of the EU and its member states.

In view of all the above, it is then possible to see potential ways and challenges that Europe is facing, which have a direct influence in the possible position of the EU on the international stage in terms of digital transformation.

The second chapter focuses on the digital agenda of the European Union, its core features and concrete steps taken by the Commission and member states. This chapter also discusses the challenges the EU is facing and some of the recommendations that are needed for the EU to become competitive in the international arena and to achieve maximum digital independence.

Chapter three introduces China's vision for digital transformation, its main goals and characteristics. It is also important to note that this part of the paper introduces the main political-ideological differences that exist among China and Western geopolitical actors. Furthermore, it discusses part of the challenges and specific projects and plans that are being implemented under the active and direct control of the PRC'S government.

The fourth chapter then represents the interrelationships between the EU and China, including examples of bilateral cooperation in recent years, current ties between the two actors, as well as possible future perspectives for their cooperation in terms of digitalization, which may take place despite conceptual differences.

This structure of the research helps us to identify and analyze the main goals, objectives and aspirations of each international actor, the challenges they face and the areas where there is the possibility for the parties to cooperate and achieve a common goal. Each chapter focuses on a specific issue that aims after reviewing individual cases and independent strategies to contribute to the final conclusions.

# Chapter I: Digital Dimension of the Rivalry Between the Us and China

The U.S-China rivalry has become a leading pattern of the international society that can only be understood in its multidimensionality. One of the greatest changes in the international system has to do with the rapid development of China and the advancement of the Asian region on the world stage, in general. All of these events have dramatically changed the agenda of international affairs.<sup>3</sup>

Just a few years ago, China was seen as a potential long-term rival in the US foreign policy's strategic documents. Though the era in which we live, it has acquired a completely different narrative as it has become clear that we are in a sort of transitional phase where a balance of power is being redistributed and a new geopolitical reality is in process of being formed. The focus on China and the Asian region, in general became even more apparent during the Barack Obama administration (2008-2016). Through his foreign policy of so called "Pivot to Asia" generated a source of tension with the Xi Jinping's government.<sup>4</sup>

Rivalry between the US and China influences the general geopolitical situation of the world and impacts the actions of various international actors and the concrete decisions taken by them. In the last years, the US-China relationship is in freefall and this crisis is affecting different dimensions of security, economic, diplomatic, political, ideological and digital areas.

Definitely, this US-China conflict has implications for Europe and its bilateral relations with both actors. Trump's administration was a main factor of deepening mistrust and misunderstandings in transatlantic cooperation and that influenced many international decisions of the EU. During the Biden administration there is a new opportunity of rebalancing and reconsidering relations between Brussels and Washington that may in turn influence China's geopolitical and economic strategic steps.

## 1. Digital Framework

The most frequent debates in this process still concern economics and trade-financial policy. The US most often criticizes China precisely because of its unfair and disproportionate trade policy, which puts businesses and trade actors in an unequal position. This criticism is largely shared by Europe, and it has repeatedly called on China to trade and negotiate on fair terms. While the emphasis is mainly on the economic direction, we must not forget that technological dominance and digital competition is a key dimension of the rivalry between the United States and China in the face of future prospects and an accelerated digital revolution. The technological and digital aspects are crucial for both giant economies, because on the one hand, it creates a global competitive advantage and, on the other hand, it is a fundamental prerequisite that secures the basis for military superiority. It should be noted that security dilemma is vital in this process and one side's relentless pursuit of security leads other side to a constant feeling of insecurity.<sup>5</sup> Therefore, neither side spares resources to win this competition.

### 1.1. 5G Dimension

Technological competition is firmly related to the political-ideological and economic spheres of influence and it can practically determine the general structure of geopolitics and economy. If the US already had a technological advantage during the first digital revolution in the 1990s and the rest of the world became dependent on its market leader companies, now China's main goal is to first, weaken this technological digital dependence on the US and then become itself an unconditional leader in these terms and at the same time

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3 PERTHES, V., Dimensions of rivalry: China, the United States, and Europe. *Springer* [online]. January 2021. pp. 1-9 [Access date: May 3, 2021]. Available from: <https://link.springer.com/article/10.1007%2Fs42533-021-00065-z#citeas> p. 2.

4 *Ibid.*, p. 6.

5 *Ibid.*, p. 3.

contribute to its national security.<sup>6</sup> That approach is articulated unambiguously in the “Made in China 2025” strategy<sup>7</sup> that will be discussed in next chapters. The rivalry between the two great powers exacerbates the situation for the rest of the states, as the ultimate goal of each of them is to create a political and economic dependence to reach their own interests. Spheres of influence provide these actors with distinct possibilities to exert political and economic influence over states and businesses that depend on them.<sup>8</sup>

The rivalry between the USA and China in the field of technology can be divided into three main areas, where the competition and the attempt for supremacy are the most obvious. These areas are 5G, AI and web-based services.<sup>9</sup>

Through the 5G dimension, China is actively progressing and in some respects even has more advantages than the US. It has assessed the economic potential of 5G, it has more subscribers than the US, it has more technology with 5G support and at a reasonable price. For example, Chinese telecommunications companies, like Huawei and ZTE, have become global low-cost alternatives for 5 G equipment, as well as having more territorial coverage, which is accompanied by a faster chain reaction.<sup>10</sup> As Senior Vice President, a CSIS expert Matthew P. Goodman notices, it is estimated that by 2024 about half the globe will be covered by 5G, and well over a billion people will be using 5G technology.<sup>11</sup> Such a rapid transformation and development of the digital transition and its impact further intensifies the ambition of the great powers to take the lead in this important digital war. This explains such an active involvement in the ongoing processes of the Chinese government based on their centralized planning.

In contrast, as argues Nicol Turner Lee, director of Center for Technology Innovation, the US is operating at a much slower pace as the political elite, the private sector, existing local and federal bureaucratic procedures and restrictive regulations greatly impede rapid response.<sup>12</sup> In general terms, Edison Lee, a Hong Kong-based telecom analyst at the investment bank Jefferies, considers that there’s not a big difference yet between the two giants. But, he argues, “If you measure the progress in terms of how much the network has been built, China is far ahead.”<sup>13</sup>

It is true, that Chinese-led 5G infrastructure may be detrimental for the United States and its economic position in the world and is directly related to the national interest of both actors. Hence, the United States has always openly stated that it is a threat to its domestic and international security. Despite many attempts, it is still difficult for both states to disseminate these technologies on a large scale, so what they are trying is to decelerate each other’s expansion outside their national territories.

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6 LIPPERT, B., PETHES, V., *op. cit.*, note 1, p. 33.

7 ZENGLIN, M., J. & HOLZMANN, A., *Evolving Made in China 2025: China's Industrial Policy in the Quest for Global Tech Leadership* [online]. Berlin: Edited by WESSLING C. 2019. [Access date: May 3, 2021]. ISSN: 2509- 5862. Available from: <https://merics.org/sites/default/files/2020-06/MPOC%20Made%20in%20China%202025.pdf> pp. 17-19.

8 FARRELL, H., and NEWMAN, ABRAH. L, *Weaponized Interdependence: How Global Economic Networks Shape State Coercion, International Security* [online]. 2019, Vol. 44, (1), pp. 42-79. [Access date: May 3, 2021] Available from: <https://direct.mit.edu/isec/article/44/1/42/12237/Weaponized-Interdependence-How-Global-Economic>, p. 43

9 ORTEGA, A., *op. cit.*, note 2, p. 7.

10 TOMAS JUEAN, P, *ZTE has racked up 46 5G commercial contracts globally. RCR Wireless News* [online]. February 25,2020. [Access date: May 3, 2021]. Available from: <https://www.rcrwireless.com/20200225/5g/zte-already-secured-46-5g-commercial-contracts-globally>, See also CHINADAILY. Huawei secures 91 5G commercial contracts around the world. *Chinadaily* [online]. February 2, 2020. [Access date: May 3, 2021]. Available from: <https://www.chinadaily.com.cn/a/202002/20/WS5e4e7c2aa31012821727914c.html>

11 *China's Digital Silk Road* [Online]. On: *YouTube*. By CSIS, February 5, 2019. [Access date: May 3, 2021]. Available from: <https://www.youtube.com/watch?v=k51nXmGnhfs&t=25s>

12 LEE NICOL, T. *Navigating the U.S.-China 5G Competition* [online]. April 2020. pp. 1-15. [Access date: May 3, 2021]. Available from: [https://www.brookings.edu/wp-content/uploads/2020/04/FP\\_20200427\\_5g\\_competition\\_turner\\_lee\\_v2.pdf](https://www.brookings.edu/wp-content/uploads/2020/04/FP_20200427_5g_competition_turner_lee_v2.pdf) p. 1.

13 STRUMPE, D., *U.S. vs. China in 5G: The Battle Isn't Even Close. The Wall Street Journal* [online]. November 9, 2020. [Access date: May 3, 2021]. Available from: <https://www.wsj.com/articles/u-s-vs-china-in-5g-the-battle-isnt-even-close-11604959200>

## 1.2. The Artificial Intelligence (AI)

The Artificial Intelligence AI is a total transformational technology for humankind. Some scientists even fear that AI could literally take over the world with uncertain and even dire consequences for Humanity. Dominance of AI in the era of this kind of transformation has become one of the main symbols of international geopolitical power, for which the US and China spare no effort and resources. China's position in this rivalry is very important and considerable, since its ambition is to become a leader in AI. In July 2017 China's State Council has already issued its guideline for the next generation artificial intelligence developing plan, envisioning China as a global innovation center by 2030. China has proven many times that AI is its national priority and he is taking the necessary steps to achieve the goal. AI truly promises to bring about profound industrial and consumer revolutions, furthermore, will have an even greater effect in the future.<sup>14</sup> In this regard, it is essential to notice the existing significant differences between the actors in the AI rivalry.

For China it is much easier to deal with this race because of its ideological tech narrative, as it has direct access to very large amounts of data and does not need many bureaucratic steps to get the necessary input. This is crucially important for rapid development of AI systems. On the other hand, the US, has a solid investment in this field, with quite a lot of experience and a long history.

Moreover, the US legislation may imply more limitations on data access and that can be another important differentiating factor. As a consequence, it still remains in the leadership position in absolute terms. Nevertheless, China's accelerated progress and expanded financing on this matter is remarkably high.

It is important for Europe to develop an independent strategy in this direction too, otherwise, being in the background of the AI system significantly complicates the possibility of maneuvering for the EU, and more expectedly, the latter will have to rely on any of the above mentioned actors in certain directions of the AI.<sup>15</sup> Although recently various European countries and the EU itself are actively trying to increase investments and mobilize relevant talent and research resources, still there is a lot to do. In the following chapters we will discuss in more detail the European perspectives on the development of artificial intelligence, but it should be noted that the latter, based on its principles and ethics, can create an independent alternative system that will become a model for other states with similar values.

## 1.3. Web-based services

The web-based services are another battleground between China and the United States. At this stage, on a large scale, the US is sharply dominating through technology giant companies such as Google, Microsoft, Amazon and Apple. Although the rivalry in this area is not so tense yet, a number of startups financed by Chinese giants, like Baidu, Alibaba and Tencent (owner of WeChat, multipurpose messaging app) (collectively called BAT) are increasing day by day.<sup>16</sup> Tencent is the largest platform with access to billions of users, as it runs WeChat. Baidu is the country's largest search provider, an analogue to Google, while Alibaba is the biggest e-commerce platform. These largest companies are positioning themselves to become global leaders in different areas, like city solutions, autonomous driving, etc. and more importantly, very soon they will have enough recourses to compete with US tech giants. They are trying their best to bring all AI capabilities to the global market.<sup>17</sup> Proof of this is the fact that their representation in the European, American and other markets is gradually increasing.

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14 How is Artificial Intelligence changing China? [Online]. On: *YouTube*. By CGTN, September 16, 2018 [Access date: May 3, 2021]. Available at: <https://www.youtube.com/watch?v=cu731-8Bj60>

15 ORTEGA, A., *op. cit.*, note 2, p. 9.

16 *Ibid.*, p. 10.

17 CBINSIGHTS. *Rise of China's Big Tech in AI: What Baidu, Alibaba, and Tencent are working on* [online]. April 26, 2018. [Access date: May 3, 2021]. Available from: <https://www.cbinsights.com/research/china-baidu-alibaba-tencent-artificial-intelligence-dominance/>

## 2. Third-party states

When we argue about technological competition we must not forget that one of the crucial dimensions here are values, which are radically contrasting between the above mentioned two international actors.<sup>18</sup> This tech rivalry is not only a political and economic challenge for the parties, but also a confrontation of cultures and ideological systems, where each third party will have to decide to take part according to its own interests and priorities. According to the Director of China Competence Center and St. Gallen's university's Tomas Casas I Klett, it could be explained as: "the two major powers' competition for global affection and cognitive bandwidth that is tied to them individually. That is, the contest for the 21st century's grand narrative."<sup>19</sup>

Technological dependence may not seem very grave at first glance, but it actually has a lot of potential for disruption and can lead to some kind of sabotage by central actors, restriction of data supply, and moreover, suspension of access to digital services. With all of this in mind, third countries have to be very careful when choosing a party side, even though they have some restrictions in their ability to choose.

The first opportunity for the third-party states, including the European Union as a whole or considered by each of its Member States separately, is to show direct confidence in one of the great powers and their technologies, and join any of them. In that case, the third state should be ready to significantly increase its dependence on the central actor, but at the same time it will be an opportunity to strengthen the influence of bilateral relations. The clear example of such close cooperation in the field of intelligence services is alliance among US, UK, Australia, Canada and New Zealand, known as "Five Eyes".<sup>20</sup> The latter is an intelligence-sharing arrangement between five English-speaking democracies which was founded during the Cold War as a mechanism for monitoring and sharing certain classified data.<sup>21</sup>

On the other hand, some countries, due to their geopolitical position, can make deeper strategic use of the existing technological and digital interdependencies and selectively obtain the services and data they want from both global actors. In this case, both spheres of influence will be involved, however, the management and regulation of these processes will be much more careful and attentive.

Thirdly, states can attempt to reduce external dependence in individual technology sectors. This is exactly the path that Russia is taking to gain technological and digital independence from the United States, one of the main reasons of which is the plan to place Russia's internet infrastructure under the state control. What the latter is trying is to rely all of its public administration on locally developed digital technologies.<sup>22</sup>

Whatever decision the third-party states make, one thing is clear, this is a dangerous game for each of them that will have a tremendous implications and consequences for the future of the international politics and economy. The Chinese and American models of development are quite ambitious and radical. One is characterized by authoritarian components, where talk about the security of personal data is superfluous, and at the same time, the level of the state involvement in the ongoing processes is pretty high. Although in the second case the US government also can be involved in a specific process if necessary, still it deals mostly with economic goals, yet within a democratic system's framework. Against the background of all this, it is necessary to mention the European model, which is more focused on citizens and protection of human rights. This is one of the biggest advantages and, at the same time, the biggest challenge that makes it difficult for the EU to maneuver in this context in the international arena as we will see during the course of this dissertation

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18 ORTEGA, A., *op. cit.*, note 2, p.3.

19 CASAS I KLETT, T., Beyond Sino-American Rivalry: Whose Global Narrative? *The Globalist* [online]. October 6, 2019. [Access date: May 3, 2021]. Available from: <https://www.theglobalist.com/united-states-china-robert-schiller-the-west/>

20 BENDETT, S., & KANIA, E., A New Sino-Russian High-tech Partnership. *Australian Strategic Policy Institute* [online]. October 29, 2019. [Access date: May 3, 2021]. Available from: <https://www.aspi.org.au/report/new-sino-russian-high-tech-partnership>

21 GARDNER, E., Five Eyes: Is the alliance in trouble over China? *BBC* [online] [Access date: May 21, 2021]. Available from: <https://www.bbc.com/news/world-56970640>

22 LIPPERT, B., & PETHES, V., *op. cit.*, note 1, p. 34.

### 3. Consequences for Europe

Which path should choose Europe in this great rivalry to defend its interests on the international scene? This is now a main question for the European political leaders and society. We can claim, that the Sino-American rivalry directly and indirectly affects the unity of the EU strategy and its member states. It increases pressure on the continent in different dimensions. The two spheres of influence overlap in the region, where numerous both American and Chinese services are presented.<sup>23</sup> It is noteworthy that during the Trump administration, which marked a significant distance between Europe and the United States, there were many attempts by China to reduce the relevant existing gap between East and West and place itself on the partner's position with the EU. This is evidenced by diplomatic negotiations on climate change, on the Iran Nuclear Deal, and multilateralism in general terms, trying to underline the transatlantic gap.<sup>24</sup> One of the main drawbacks of this diplomatic maneuver is the bilateral policy, persuaded by China with individual EU countries and is characterized by noticeable heterogeneity. It varies from one-member state to another, depending on the context. The same can be said about the non-uniform bilateral relations between the EU member states and PRC.

In order to achieve a common goal, the European Union needs to be united and conflict-capable, equipped with the required legitimacy. In other words, there is a basic principle, the more unified the member states are, the greater is the Union's negotiating power and the more effective is its ability to defend European values and interests. Brussels has officially stated several times that China is opposing in terms of economy, ideology and political threats, which creates a restriction to reduce the gap and develop future cooperation,<sup>25</sup> still there is not a single European position that would unite the interests of each member state. All the attempts from the part of China were a clear demonstration of the latter's foreign policy ambition to accelerate its global governance strategy and push forward a new form of globalization.

On the background of this transitional relationships, Europe has to make a very important decision in the context of the US-China rivalry, which requires deep analysis and assessment of the situation in different dimensions. Europe can strategically exploit the existing interdependence and rely on both spheres of influence, as they are overlapped in the European market. In this case, the main priority of the EU would be the attractiveness of its Single Market, which creates political power and a way of better handling, but there is a disadvantage related to constant maintenance of balance between two powers and avoiding escalation or any kind of confrontation.

In the context of the Transatlantic relations, the approach of the new US administration and the future steps taken by Biden are quite relevant. This administration will expect from Europe that it supports U.S. policy towards China, not least on issues like 5G technology, trade rules or alliance systems in the Indo-Pacific. To achieve this goal, the United States will have to prove to Europe that equal cooperation based on common interests will be possible between them. There will also be a lot to be done to regain European confidence, which was significantly weakened during the Trump administration.<sup>26</sup> The latter often referred to Europe not as a partner but even as an adversary. The past few years have been quite harmful to bilateral relations and it is not so easy to start all over again. Regardless of the US administration, for Europe to cooperate with the US on an equal footing and defend its own interests in both multilateral and bilateral contexts, it is essential to take an independent and firm position. This is what Joseph Borrell meant when he emphasized in his article "Why European strategic autonomy matters" the need for European autonomy in the fields of security and defense along with other important areas. He noted: "Only a more capable, and thus more autonomous Europe, can meaningfully work with Joe Biden's administration, to make multilateralism great again."<sup>27</sup>

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23 LIPPERT, B., & PETHES, V., *op. cit.*, note 1, p. 31.

24 *Ibid.*, p. 8.

25 *Ibid.*, p. 47.

26 PETHES, V., *op. cit.*, note 3, p. 8.

27 BORRELL, J., Why European strategic autonomy matters. *ELIAMEP*. December 14, 2020. [online]. [Access date: June 6, 2021] Available from: [https://eeas.europa.eu/headquarters/headquarters-homepage/89865/why-european-strategic-autonomy-matters\\_en](https://eeas.europa.eu/headquarters/headquarters-homepage/89865/why-european-strategic-autonomy-matters_en)

Therefore, for Europe it is much more pragmatic to reduce the external dependency in individual technology sectors and mostly rely on its local skills and expertise in different sectors and industrial manufacturing technologies to develop its own digital strategy and influence.<sup>28</sup> Europe is a unique international actor with a system of strict data protection, oriented to civil society rights which gives it opportunity to create an alternative digital technological system which will meet all possible requirements and make the EU as an independent player in this geopolitical game. The European Union must try its best to find and hold its own position, reduce the EU's external dependency concerning goods and critical technologies, investing in innovation and improving data security.

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28 LIPPERT, B., & PETHES, V., *op. cit.*, note 1, p. 33.

# Chapter II. The EU digital agenda

When we ask the question why is it so important for Europe to succeed in the process of digital transformation and proper management of this revolutionary process, the first thing that comes to mind is the geopolitical factor. As discussed above rivalry among great powers creates a challenge for a free sovereign politics of Europe and the definition of its own role on the international stage. Leaving aside the international aspects, most importantly, the digital transformation means the potential for an improved and diverse service for every citizen in the shortest time. In the healthcare sector, for example, it means better and earlier diagnosis for different diseases, which allows for more effective treatment. Moreover, it is a key aspect for Europe to reach the aim of climate neutrality through the optimal use of artificial intelligence and digitalization in the future.

Already in 2010 the European Commission established a Digital Agenda in which prioritized digitalization as a key element to economic growth and boost of competitiveness of the European Union in the international arena. In the process of developing this agenda, various measures have been adopted and framed under the general objective of advancing the Digital Single Market in Europe.<sup>29</sup>

The EU in its time was able to create a common market for products and services, moreover, it managed to unite different member states under a common currency and formed itself as a global financial actor.<sup>30</sup> Now the member states have an even more complex task ahead, which is related to the Digital Single Market and this would be the general framework in which every actor should respect the common values, rules and established norms, related to data protection, privacy and cybersecurity. This is important to create a fair competition environment and avoid any kind of cybercrime or violation of fundamental rights. In this context, it is crucial to consider the main dimensions of European digital transformation, to determine what the EU is focusing on and define what the Commission's priorities are.

## 1. European Commission's view and strategy

### 1.1. Shaping Europe's digital future

As digitization processes of recent years have had a significant impact on the development of the European economy and society and the Europeans' everyday life, in June 2020 the European Commission announced a policy official document on "Shaping Europe's digital future", with focus on 3 main objectives: open and democratic society, competitive economy in fair conditions and technology that works for citizens.<sup>31</sup> The action plan proposes a digital space that works for all Europeans, meets the opportunities and challenges posed by artificial intelligence (AI), and focuses on appropriate data strategy. The conclusions put a special emphasis on the fact that the EU would create strict ethical norms to protect the interests and personal data of each citizen, as well as to avoid any kind of discrimination and achieve maximum equality. Furthermore, the Commission underlines the need of a fair and competitive digital economy, as well as an open, democratic and sustainable society which means empowerment of citizens with better control and protection of their data.<sup>32</sup>

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29 PÉREZ MARTÍNEZ, J. E., HERNÁNDEZ-GIL GÓMEZ J. E., ARTEAGA MARTÍN F., MARTÍN NÚÑEZ J. L., *El futuro digital de Europa* [online] Madrid: September 2020. [Access date: May 17, 2021]. ISBN: 978-84-306-9941-4. Available from: <http://www.realinstitutoelcano.org/wps/wcm/connect/9eec583e-af76-4261-bec7-2e699a3e4c22/El-futuro-digital-de-Europa.pdf?MOD=AJPERES&CACHEID=9eec583e-af76-4261-bec7-2e699a3e4c22> p. 12.

30 ANTHONY, I., ZHOU J., YUAN, J., SU F., KIM J., China-EU Connectivity in an Era of Geopolitical Competition. *SIPRI Policy Paper* [online] March 2021, No.59. [Access date: May 22, 2021] Available from <https://www.sipri.org/publications/2021/sipri-policy-papers/china-eu-connectivity-era-geopolitical-competition> p. 48.

31 Shaping Europe's digital future: What you need to know. *Modern Diplomacy* [online]. [Access date: May 17, 2021]. Available from: <https://modern diplomacy.eu/2020/02/22/shaping-europes-digital-future-what-you-need-to-know/>

32 Conclusions of Council of European Union, June 9, 2020, "Shaping Europe's Digital Future" [online] 2020 [Access date: May 18, 2021]. Available from: <https://data.consilium.europa.eu/doc/document/ST-8711-2020-INIT/en/pdf.>, pp. 4-6.



In February, 2020 the press conference by the Executive Vice-President Margrethe Vestager and Commissioner Thierry Breton was held in Brussels on the above mentioned Commission's strategy, where Vice-President Vestager underlined the main components of the European digital package, which contains an overarching strategy communication to set out the EU vision for a digital society that works for all.<sup>33</sup>

As mentioned above, one of the main points is technology that works for the whole society. This point considers the development of technologies that will actually change daily lives of citizens. A strong and competitive economy in the footsteps of European values is the precondition for such technological transformation. The document underlines the need of more investment in strategically important sectors which will enable the widespread use and development of key digital infrastructures, such as, for example, 5G and future 6G networks. As in the context of digital transformation connectivity is a key element, since it enables data flow, connects people regardless of geographical location, and transforms manufacturing, supply and logistic chains, Commission sees the necessity to invest in connectivity sector along with deep tech, transport infrastructure and human capital.<sup>34</sup>

Along with investing in innovation, for the European Commission it is also important to create a strong control and executive mechanism that will be trustworthy for each citizen and will ensure cooperation between the EU institutions and member states. The aspect of citizen's trust in technology is a top priority for Brussels and the confirmation of this is a white paper on creating ecosystems of excellence and trust in the field of Artificial Intelligence based on European values, especially when it comes to the issue of Artificial Intelligence.<sup>35</sup> An important aspect in the process of digital transformation is to make changes and developments in the fields of education system and labor market, to adapt properly to the new reality so as not to harm the interests of citizens. As there was mentioned in the document, in these processes work force needs a digital competence and special skills to succeed in an increasingly digitalized labor market.<sup>36</sup>

A fair and competitive economy is another relevant pillar of the EU's digital strategy. It refers to a common market where companies of different sectors and distinctive sizes will be able to use digital technologies, products and services on equal terms and that will increase their productivity and competitiveness in a global context. As mentioned above, an active work on the part of Commission is needed to develop a new EU industrial strategy that will simplify the transition process and make the EU industry more competitive. For Europe it is necessary to introduce proportional rules that will provide companies with a powerful home market from which they could launch themselves on the world stage. The Commission is also planning to launch a sector inquiry with a strong focus on these new and emerging markets that are shaping the EU's economy and society.<sup>37</sup>

An open, democratic and sustainable society is also a crucial point, as it focuses on a trustworthy environment where citizens' rights are the number one priority. In this context, the European way of digital transformation is very special because it is based on fundamental rights, democratic values, and contributes to a sustainable climate-neutral and resource-efficient economy. Due to the fact that this transition process is associated with a very large amount of personal data which increases the various risks, mostly in the form of violations of human rights and individual interests, the Commission underlines that developed rules should be applicable to digital services across the EU and clarify the responsibilities and roles of online platforms. Building trust in the online world means that users will have maximum access to their own data and identity control. A universally accepted public electronic identity is necessary for consumers to have access to their

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33 Press conference on the Commission's new strategy: Shaping Europe's Digital Future[online]. On: *YouTube*. By European Commission, February 19,2020 [Access date: May 17,2021].Available from: <https://www.youtube.com/watch?v=ivg9d071Oxl>

34 PÉREZ MARTÍNEZ, J. E., & HERNÁNDEZ-GIL GÓMEZ, J. F., and others, *op. cit.*, note 29, p. 35.

35 EUROPEAN COMMISSION. *Europe fit for the Digital Age: Commission proposes new rules and actions for excellence and trust in Artificial Intelligence (press release)* [online]. April 21, 2021 [Access date: May 27, 2021] Available from: [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_21\\_1682](https://ec.europa.eu/commission/presscorner/detail/en/IP_21_1682)

36 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, February 19, 2020, "Shaping Europe's Digital Future". COM (2020) 67 final. p. 5.

37 *Ibid.*, p. 9.

data and securely use the products and services they want without unnecessarily sharing personal data.<sup>38</sup> In this framework the role of the media in protecting democracy and cultural diversity is emphasized and one of the main goals of creating the European Democracy Action Plan serves exactly to empower citizens and shape stronger democratic systems across the EU.<sup>39</sup>

The main objective is to give companies and the public sector in the EU the means to make better decisions through the access to data. Furthermore, in the official document is highlighted the importance to create a single European data space and single data market which will be open to data from all over the world and where the personal and non-personal data and companies will be safe.<sup>40</sup> It's important to notice that there should be a space where the EU legislation can effectively implement and where all data based products and services comply with the relevant norms of the EU's single market.

As we see, the Commission, along with the many benefits of digitalization, always mentions and focuses on the risks and expected uncertainties, associated to rapid technological development and the exchange of an indefinite amount of information. Nowhere else so much is said about the expected negative effects and probable damages as in Europe, nowhere else is as much attention paid to defending the rights of each citizen in the current technological transition processes, as it is in the EU. The creation of appropriate digital transition conditions for each citizen is a key issue for European Commission. These characteristics distinguishes the latter from other international actors and such caution and different goals simultaneously can be viewed as both, the strength and weakness of the EU's digital strategy.

## 2. The EU's dimension of Artificial Intelligence (AI)

As mentioned in the previous chapter, one of the most important dimensions in the process of digitalization is the artificial intelligence (AI) which has a rather long history of development, but in recent years has acquired a special significance given the increased computing capacity, availability of data and new algorithms. To date, there is no precise and standard definition of artificial intelligence that describes in detail the main features of the latter itself, although according to the traditional definition we can say that it is a mechanism with the ability to observe the environment and analyze it, and from that it can implement specific decisions and take actions.<sup>41</sup> In public's imagination it is often associated with humanoid robots or intelligent machines. In fact, robotics is only a small part of the wide field of AI. It is a central pillar of the digital transition of society and offers major opportunities for future developments. The opportunities opened up by the AI are many and in some cases not even predicted.

Considering the above mentioned circumstances, the issue of struggle among the major actors for leadership in this field has been raised on the international agenda. As mentioned before, it is important to analyze more deeply the European concept and landscape of AI, highlight its key characteristics, which are very unique and quite different from its competitors.

Many European countries and institutions are developing different strategic programs to guide the development of AI with shared concerns. One of the most important characteristic for these actors is an agreed ethical framework, based on European values and legal treaties that clearly benefits the European society.<sup>42</sup> In this context, the development of ethical guidelines at both national and European levels is crucially important. It can be said, that these values are both a challenge and an advantage for Europe. The legal framework of artificial intelligence and the protection of fundamental rights, as well as individual and intellectual property rights sharply distinguish this model from other international actors' policy and makes

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38 *Ibid.*, p. 11.

39 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, December 12, 2020, On the "European democracy action plan". COM (2020) 790 final. p. 1.

40 Conclusion of Council of European Union, *op. cit.*, note 32, p. 10.

41 CRAGLIA, M., ANNONI, A., BENCZUR, P., and others., *Artificial Intelligence - A European Perspective*, EUR 29425 EN, Luxembourg: Publications Office of the European Union, 2018. ISBN 978-92-79-97217-1. p. 19.

42 *Ibid.*, p. 9.

it special. On the other hand, this maximum openness and transparency hinders certain processes that will be discussed in the following chapters.<sup>43</sup>

## 2.1. Strategy and plans

The European Commission and its Member States are actively cooperating in terms of developing artificial intelligence. In April 2018, European countries signed a Declaration on cooperation on Artificial Intelligence (AI).<sup>44</sup> They agreed to cooperate together on the most important issues of this field and ensure Europe's competitiveness in the research, to deal with social, economic and ethical questions. The declaration builds up the new opportunities of achieving further developments in AI. The core priorities of for collaboration between the Member States are mapping research excellence, develop trusted data systems for algorithms, networks of digital innovation hubs, support to start-ups and improvement of public services through AI-enabled applications.<sup>45</sup>

The main goals of European AI strategy are: boosting the EU's technological and industrial capacity, create a solid base for social-economic changes, caused by AI and encourage the educational modernization for a more potent labor market. Furthermore, ensure an appropriate ethical and legal framework, based on core European values and fundamental rights. In this context, relatively interesting steps have been taken, including the creation of a common ethics guideline that will help each member state to identify main challenges and opportunities of artificial intelligence.<sup>46</sup> Moreover, medium and long-term recommendations allow them to develop proper legislative evaluation process and adopt to the common next-generation digital strategy.

The funding of these proposals is related to the Digital Europe Program (DEP), the Connecting Europe Facility and Horizon Europe. For the latter, the Commission decided to invest 15 billion in the digital and industry areas, including AI. For DEP initiative the EU is planning to invest approximately 2.5 billion for data platforms and European High Impact project on European data spaces.<sup>47</sup>

Artificial Intelligence is transforming every aspect of our lives, impacting technology, business and society. We can argue that Europe is quite well positioned on a research front considering its well-established and developed research lab, but still there are many aspects where the EU needs to catch up.

In a global race of AI where the EU policy makers focus on ensuring the ethical action and transparency, to create equal opportunity for each member of society, in conditions when the expected results of artificial intelligence are still unknown and ambiguous, may be an obstacle to innovative development in some context. Such processes may slow down the velocity of action compared to other international actors. On the other hand, fragmented European data should be considered as an obstructive aspect for growing electronic platforms and businesses on a global stage. US and Chinese companies can access large scale of data and algorithms which helps enhance the services and uphold the market leadership. The EU needs to find the golden mean between its fundamental values and maintenance of global competitiveness.

## 2.2. The ethics of Artificial Intelligence (AI)

As already mentioned above, it is especially important for the EU, as an independent player in this rivalry, to protect the rights of its citizens and regulate the ongoing digital transformation processes in a proper framework. There was always highlighted that the AI raises some concerns in terms of fundamental rights and the safety of consumers and users. In this context, on April 21, 2021 the Commission proposed the first

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43 *Ibid.*, p. 10.

44 EUROPEAN COMMISSION. *EU Member States sign up to cooperate on Artificial Intelligence (press release)* [online]. April 10, 2018. [Access date: May 18, 2021] Available from: <https://digital-strategy.ec.europa.eu/en/news/eu-member-states-sign-cooperate-artificial-intelligence>

45 CRAGLIA, M., ANNONI, A., BENCZUR, P., and others., *op. cit.*, note 41, p. 38.

46 *Ibid.*, p. 37.

47 *Shaping Europe's digital future: What you need to know. op. cit.*, note 31.

legal framework on AI which shapes the European approach, address risks of AI and includes a national and community supervision system.<sup>48</sup> It is a rather ambitious plan that limits specific applications which may violate internationally recognized fundamental human rights, put at risk the issue of individual security and general European values. Furthermore, this document incorporates previously existing norms, as for example, the Digital Services Act<sup>49</sup> issued in 2020, ensuring a high level safe and accountable online environment for protecting all users, as well as the Digital Markets Act<sup>50</sup> which creates a legal environment to facilitate that digital platforms behave in a fair way online and guarantee free and open digital markets. The document was developed in several phases, initially the so-called White Paper on Artificial Intelligence was created,<sup>51</sup> which was edited after various comments and recommendations.

It is noteworthy, that the above mentioned document is a full-fledged regulatory proposal which opens a discussion not only in Europe but also in other democratic systems of the world. It can be considered as a regulation about the way how the new technologies should be applied in certain specific contexts. The main objective of the latter is to make sure that the development of AI does not violate any fundamental right of the citizens and to provide high standards of safety which are the standard in the European Union during many years. The regulations on AI are viewed as a crucial instrument to enhance trust in the society and make it completely safe for businesses to rely on the AI.

More precisely, this act developed by the European Union imposes certain regulations on various actors in the market and has particularly serious requirements and obligations for the so-called “high-risk Artificial Intelligence systems” which are those intended to be used as “safety components” of products, as, for example, on machinery, toys that use vocal assistance to incite dangerous behavior in minors, exploitation of children or people with mental disabilities, resulting in physical / psychological harm, lifts/elevators, radio equipment, pressure equipment, medical devices, etc. Moreover, those AI, related to biometric identification and categorization of persons; management and operation of critical infrastructure; education and vocational training. Including those that are in software and can be recruitment applications.<sup>52</sup> The document explains the different cases and the levels of risk, depending on the specifics of a particular field. We meet high, limited, minimal and zero risk areas, which would apply to programs, applications and devices made in the EU or imported in the common market zone. Theoretically it is conducive to divide AI components into such categories, but in practical terms it will be very difficult to define each individual case.

According to the Artificial Intelligence Act, there are some additional transparency obligations for specific AI systems, such as emotion recognition and biometric categorization. It is also underlined that providers of high-risk AI systems will be obliged to make sure that before putting the good or the software on the market it establishes a quality management in its organizations, draw up the technical documentation and will report on serious incidents, take certain measures in the case the health of the citizens or any fundamental right is under the risk. Interestingly, there are several light obligations for users too. As, for example, the user has to put in place the human oversight system when using the AI system, monitor operation for possible risks and etc. Furthermore, national supervisory authorities should report to the Commission about their supervision

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48 CALDERÓN AMADOR, J.J., Laying down harmonized rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union legislative acts. *Medium* [online]. April 26, 2021 [Access date: May 18,2021]. Available from: <https://medium.com/t5es/laying-down-harmonised-rules-on-artificial-intelligence-artificial-intelligence-act-and-amending-534220036e4>

49 The Digital Services Act: ensuring a safe and accountable online environment [online] [Access date: May 18,2021]. Available from: [https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-services-act-ensuring-safe-and-accountable-online-environment\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-services-act-ensuring-safe-and-accountable-online-environment_en)

50 The Digital Markets Act: ensuring fair and open digital markets. [online] [Access date: May 18,2021]. Available from: [https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-markets-act-ensuring-fair-and-open-digital-markets\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-markets-act-ensuring-fair-and-open-digital-markets_en)

51 European Commission, February 19, 2020, “White Paper on Artificial Intelligence-A European approach to excellence and trust” COM (2020) 65 final. [online] [Access date: May 22, 2021] Available from: [https://ec.europa.eu/info/sites/default/files/commission-white-paper-artificial-intelligence-feb2020\\_en.pdf](https://ec.europa.eu/info/sites/default/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf) p. 1

52 MODRALL, J., The EU proposes new Artificial Intelligence Regulation. *North Rose Fulbright* [online]. April, 2021 [Access date: May 18,2021]. Available from: <https://www.nortonrosefulbright.com/en/knowledge/publications/fdfc4c27/eu-to-propose-new-artificial-intelligence-regulation>

activities, to improve their services.<sup>53</sup> Important part of the legislation imposes transparency obligations on some systems that need to make people aware that they are interacting with AI. In other words, those who interact with these systems should know that it is AI. At this point the crucial emphasis of Commission is on private companies rather than the public sector which will create certain confusions in the future.

What we can argue is the fact, that the above mentioned regulation aims to give a great clarity to citizenry and the industrial world to show what terms are acceptable and what are not, where is the red line between the fundamental rights and new technological and software opportunities. It is essential that each individual and the various parties involved in the digital process of developing AI know exactly what their rights and obligations are, which is quite difficult to define and regulate in the new era. This is undoubtedly another step forward for the European Union to become one of the most important regulatory examples and a leader for the rest of the world's democratic systems, which will potentially be guided by similar principles.

Indeed, the document is not a universal regulation that adapts to the individual standards and needs of each international actor. The biggest problem we face here is that artificial intelligence, its development and future outcomes are still too ambiguous. The biggest question mark is, rather it is possible to regulate something the consequences of which are unknown yet? Or will it be a barrier for the private sector? Maybe these regulations are too early and may negatively affect the EU's competitiveness with global actors such as the US and China? These are the questions that this regulatory document raises, and it will take time to answer them.

### 3. 2030 Digital Compass: The European way for the Digital Decade

In the framework of digital transformation, the Commission has set a communication to the EU parliament, the Council, the European Economic and Social Committees and the Committee of the Regions regarding the strategy to put in place to transform EU society in a digitalized society.<sup>54</sup> The introductory part of the document highlights the consequences of the Covid-19 pandemic and its considerable impact on the society, the economy and on current reality in general. In this context, digitalization has taken on a different meaning and has shown that humanity is entering a new stage of development and needs to adapt properly to these innovations. The Commission's communication also mentions the weaknesses of the EU, which were identified during the pandemic. More specifically, reliance on non-European technologies and materials, the negative impact of disinformation on the formation of public opinion and the vulnerability of democratic institutions.<sup>55</sup>

Four cardinal points for mapping the EU's trajectory were highlighted in the document.<sup>56</sup> First and foremost, it is about creating a robust digital education ecosystem that ensures the development of a population with sufficient digital skills and, consequently, the development of highly trained and skilled professionals, which is considered to be an essential factor to reinforce collective resilience of the society. Moreover, the Commission mentions the necessity of attracting talents from all over the world. The second important aspect is the development of a sustainable digital infrastructure, which is a source of technological and industrial development, as well as a secure connectivity for every member of European society. The rest of the pillars are related to the digital transformation of business and public services. The former case means flexibility of businesses to adopt new digital technologies and use of digital capabilities. The digital transformation

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53 Proposal for a regulation of the European Parliament and the Council. Laying down harmonized rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union legislative acts. April 21, 2021. COM (2021) 206 final 2021/0106 (COD). p. 14.

54 EUROPEAN COMMISSION. *Europe's Digital Decade: Commission sets the course towards a digitally empowered Europe by 2030 (press release)* [online] March 9, 2021 [Access date: May 20, 2021]. Available from: <https://digital-strategy.ec.europa.eu/en/policies/digital-compass>

55 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions, March 9, 2021. 2030 Digital Compass: The European way for the Digital Decade, COM (2021) 118 final, pp. 1-4.

56 *Ibid.*, pp. 6-11.

of public services aims to increase the greater public participation in the process of building democracy, provide high security and privacy standards and advanced capabilities for every citizen.<sup>57</sup>

Undoubtedly, the document sets quite ambitious priorities and the question arises how realistic it is to put these goals into practice, and whether the EU has sufficient resources to achieve these outcomes. Raquel Esther Jorge-Ricart, fellow in Washington University, gives an interesting assessment and possible recommendations for improvement this document.<sup>58</sup> She argues that from a geopolitical perspective it is important to define well digital sovereignty and make clear differences between internal sovereignty, which is related to single market and normative power and foreign action, which means to identify if the competences between the European External Action Service and the Commissioners are shared or unique. Another important pillar which is mentioned by Raquel Jorge-Ricart is that some efforts are needed regarding politically confidence-building measures among member states, to harmonize the EU-wide common Digital Compass with national legislations and strategies. The goal is to be flexible with different priorities and capabilities of the Member States. She also highlights that “greater focus on digitization as a common good which looks forward to the development of Sustainable Development Goals, or other measures such as humanitarian technologies and civil society’s participation.”<sup>59</sup>

To summarize, the digital compass offers new opportunities and goals to the European community against the backdrop of accelerated digital transformation in the context of academia. This is another opportunity and a step forward in establishing common strategic approaches between member states and defining external action in the international arena. However, there are still some doubts about how realistic its goals are and how effective they will be in the long run.

## 4. Main challenges for Europe

As already mentioned, given the competitive environment on the international stage, the EU has already made a firm decision to pursue its path independently and to establish its own autonomous system that will guarantee the protection of every citizen’s rights and of the European values, in general. Nevertheless, the digital transformation will be quite a complex process for Europe and will propose some important challenges.

When we argue about the challenges of Europe, there are several important aspects to consider. Firstly, as we have seen, there are geopolitical factors and the international image, that will define

Europe’s role in international relations over the coming decades. Therefore, it is important to fill the gaps within the EU itself and to properly navigate the situation in the framework of common market. Digitization poses a challenge for various European actors, public and private sectors, who are progressing towards a digital economy. Reach a consensus between the member states is crucially important to shape EU’s future position on the global stage.

Ongoing geopolitization is producing the unification of economic interests, politics and national security, and the EU, unlike its rivals, still continues to separate economic interests from the political ones and lacks a sense of national security of its own. Without these conditions, it will be unable to integrate all its instruments of power and influence to gain synergies and economy on a scale, and the EU will find it difficult to compete with the US and Chinese rivals.<sup>60</sup> Furthermore, a normative power such as the EU in favor of constructing and regulating bureaucratic processes through multilateral and bilateral agreements would find it difficult to consider to act in the margin of international law and without restrictions, as its competitors do. Precisely,

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57 2030 Digital Compass: The European way for the Digital Decade. *Fintech News* [online]. April 6, 2021. [Access date: May 20, 2021]. Available from: <https://www.fintechnews.org/2030-digital-compass-the-european-way-for-the-digital-decade/>

58 JORGE-RICART R., The new Digital Compass at the EU: risks and opportunities. *Real Instituto Elcano* [online]. March 15, 2021. [Access date: May 20, 2021]. Available from: <https://blog.realinstitutoelcano.org/en/the-new-digital-compass-at-the-eu-risks-and-opportunities/>

59 *Ibid.*

60 PÉREZ MARTÍNEZ JORGE E., & HERNÁNDEZ-GIL GÓMEZ J. E., and others *op. cit.*, note 29, p. 32.

what is truly relevant in the digitization process of the EU in its current condition is that the Commission and the member states are becoming aware of the asymmetry of the playing field and the deterioration of its technological and industrial base, so that the conviction is spreading that the EU needs to adopt defensive measures to improve its weakness.<sup>61</sup>

Another challenge in this context is related to territorial disparities of digitalization between the EU countries and different regions. There are still significant gaps between the most and the least digitalized countries and areas. Analyzing the general data, the Nordic countries stand out with clear leadership not only in Europe, but also in the world. Moreover, it should be noted, that the results of the member states also differ from each other by various components. Some of them perform comparatively well in some areas, while underperforming in others. For instance, Portugal, is performing well in terms of connectivity, but less so for human capital. Austria, by contrast, ranks rather high for human capital, but stands behind in terms of the use of the internet.<sup>62</sup>

The challenge of human capital and its retraining should be mentioned; as relevant technical knowledge is essential in the ongoing transformation to explore the opportunities provided by digitalization. The latter is significantly changing the nature of work and has a major impact on labor markets. It is true that the European Commission has developed related strategy for staff training and skills development, as, for example the so-called “Digital Skills and Work Coalition”<sup>63</sup> for the digital skills shortage, but still the concentration of digital skills in different member states is very unequal and diverse.<sup>64</sup> In this regard, it is essential to eliminate the existing inequalities and to create equal conditions in each member state, in its urban and rural areas as far as possible.

Another important threat for Europe is related to the difficulty for successful European companies to scale up.<sup>65</sup> It means that there are different rules and regulations among member states which impedes coordination and free movement within itself. As mentioned above, a significant issue for the EU is a geopolitical dimension, more specifically growing multipolarity. In this aspect strong European leadership is critically important to carry out the right coordination and proper management of common priorities.

The main objective for the EU should be to stay competitive in the strategic value chains of the future and apply all defensive tools to protect strategically important technologies and infrastructures. This responds another important challenge of the EU, which is protection of democracy and its values. There exists an existential fear of manipulation of data in the digital transition process, which is absolutely close to reality. Europe has its option to become a big democracy which means a democratization of data, maximum participation of citizens, and technology at the service of society. If the EU fails to execute its plans, there is a great risk to become dependent on other global digital leaders like US or China.<sup>66</sup>

In order to achieve desired technological independence Europe needs a united robust position, which will be shared by the majority of member states, otherwise it will be much more difficult to defend the individual national interests of each state in the process of rivalry between these two giants of the international arena. There are a lot of challenges for the EU in this context and there are numerous question marks that need to be answered as soon as possible. To accomplish the objective of a digital Europe, it is essential that the EU properly addresses extremely complex issues and long-term plans. It is important to determine how the expected risks will be identified and possible threats will be avoided, as well as the speed and flexibility

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61 *Ibid.*, p. 34.

62 VIRONEN H., & Kah S., Meeting the Challenges of Digitalization: Implications for Regional and Rural Development. *European policies research center* [online], January 2019, No 111. [Access date: May 18,2021]. 978- 1-909522-50-3. Available from: [https://www.eprc-strath.eu/public/dam/jcr:d31b925c-c8da-4200-acfb-e27f6f949efb/EPRP%20111\\_Meeting%20challenges%20of%20digitalisation.pdf](https://www.eprc-strath.eu/public/dam/jcr:d31b925c-c8da-4200-acfb-e27f6f949efb/EPRP%20111_Meeting%20challenges%20of%20digitalisation.pdf). p. 2.

63 Digital skills and jobs coalition [online] [Access date: May 18, 2021]. Available from: <https://digital-strategy.ec.europa.eu/en/policies/digital-skills-coalition>

64 VIRONEN H., & Kah S., *op. cit.*, note 62, p. 15.

65 *Ibid.* p. 5.

66 The EU Digital Strategy at a time of geopolitical stress [online]. On: *YouTube*. By Bruegel, September 2, 2020 [Access date: May 18, 2021] Available from <https://www.youtube.com/watch?v=UDirgoYX2t8>

of decision-making. Most importantly, all this should not happen in the expense of bureaucratic delays of technological innovation and development of the digital economy. We should take into consideration the speech made by the French President Emmanuel Macron when presenting France's new national strategy for artificial intelligence.<sup>67</sup> He has repeatedly stressed the importance of European "technological sovereignty", but given the fact that France and Germany perceive each other as the most reliable and close partners in the development of technological strategy, especially artificial intelligence, it is ambiguous what is meant by "European sovereignty" and whether this aspiration reflects a common European opinion position.<sup>68</sup>

In the process of digitalization at a time of geopolitical stress, first of all what the EU needs is more cooperation between states, because no single member state can address this challenge alone. Furthermore, as the historical past has shown the EU is strongest when it acts together and joins forces between its Member States; involving regions and municipalities, civil society, financial institutions, businesses and social enterprises. Europe has a long and successful history of technology and creativity and this is the issue where is a need of a true European response.

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67 France's new national strategy for artificial Intelligence-Speech of Emmanuel Macron. *ELYSEE* [online]. March 29, 2018. [Access date: May 18, 2021]. Available from: <https://www.elysee.fr/emmanuel-macron/2018/03/29/frances-new-national-strategy-for-artificial-intelligence-speech-of-emmanuel-macron.en>

68 ORTEGA, A., *op. cit.*, note 2, p. 6.



# Chapter III. China's digital framework and strategy

## 1. General overview

As mentioned above, one of the main actors in the era of digital transformation and international rivalry is China, which is paying a special attention not only for its highly developed technological strategy, but also for its economic, ideological, social and geopolitical status on the international stage. The latter's specific ideological dimension and political system has a significant effect on the existing technological rivalry, as the winning party will enjoy a lasting economic, political and technological advantage, as well as will largely determine the power politics of the next few decades in the international community.

A decade ago, very few would have believed that China could develop such an advanced digital sector in such a short period of time but today it is one of the important digital innovation powerhouse. In his speeches, President Xi Jinping repeatedly emphasizes the importance of China to become a leader in emerging technologies such as Artificial Intelligence (AI), nanotechnology, quantum computing, big data and cloud computing.<sup>69</sup> On recent years China has significantly advanced with applications based on Artificial Intelligence, as, for example, face recognition, block chain technologies and quantum computation. It also has significant development achievements in areas such as logistics, e-commerce and digital health. Chinese companies are competing successfully worldwide in ICT (Information and Communication Technology) products.<sup>70</sup> ICT covers any product that will store, retrieve, manipulate, transmit or receive information electronically in a digital form. For instance, personal computers, digital television, email, robots and services.

China's digital strategy includes both the economic and social characteristics and in contrast to Western tech companies, whose data-usage practices have been increasingly inspected and revised,

Chinese tech companies enjoy significant political support. Developing the key technologies, establishing main tech-zones and innovation hubs are part of the government's state agenda. The line between private industry and state is blurred. A clear demonstration of the latter is the National Intelligence Law of the People's Republic of China, adopted in June, 2017, according to which every citizen, enterprise and organization have the obligation to support the work of national intelligence. According to article 7, "Any organization or citizen shall, in accordance with the law, support, assist and cooperate with the work of national intelligence and keep the work of national intelligence known to it confidential". And article 14 notices: "The State intelligence service may, in accordance with the law, request the relevant organs, organizations and citizens to provide the necessary support, assistance and cooperation".<sup>71</sup>

The situation in the West is quite different as 5G aspirations are mostly driven by the private sector, which automatically implies that these actors do not have similar control and jurisdiction over its different territorial locations, as has China. As a result, it may down certain development processes.

It is noteworthy, that China's digital ambitions should not be viewed as purely economic or civilian exercises, rather than the combination of economic goals with broader normative and security aims of the government. To gain leadership in the world of developing digitalization processes, Beijing is actively investing in areas such as 5G, Artificial Intelligence, big data, industrial internet, supporting and encouraging new talent, as well as establishing academic and research institutions.

It should be noted that data security is a crucially important aspect for China and the demonstration of this is the "Data Security Law" which was announced by the National People's Congress for public comments.

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69 SHI-KUPFER, K., & OHLBERG, M. China's Digital Rise. Challenges for Europe. *MERICCS* [online]. April, 2019 [Access date: March 6, 2021]. Available from :[https://merics.org/sites/default/files/2020-04/MPOC\\_No.7\\_ChinasDigitalRise\\_web\\_final\\_2.pdf](https://merics.org/sites/default/files/2020-04/MPOC_No.7_ChinasDigitalRise_web_final_2.pdf) p.8

70 SCHOFF JAMES L., & ITO A., Competing with China on Technology and Innovation. *Carnegie Endowment for International Peace* [online]. [Access date: May 23, 2021] Available from: <https://carnegieendowment.org/2019/10/10/competing-with-china-on-technology-and-innovation-pub-80010>

71 The National People's Congress of the People's Republic of China. 中华人民共和国国家情报法 [online]. June 6, 2017 [Access date: May 23, 2021] Available from: [中华人民共和国国家情报法\\_中国人大网\(npc.gov.cn\)](http://www.npc.gov.cn).

The main content was to clarify the data security protection obligations and establish basic systems for data security management and emergency response. One of the most important parts of the document is paragraph 24, which states the following: “Where any country or region adopts discriminatory prohibitions, restrictions or other similar measures against the People’s Republic of China in terms of investment and trade related to data and data development and utilization technologies, the People’s Republic of The country or region takes corresponding measures.”<sup>72</sup> This point draws attention to the fact that in the future it may become the basis for further politicization of foreign technologies.

## 2. Chinese 5G dimension

In the face of global digital competition, 5G is especially important for China and its leaders, as it is considered to be one of the key components to become a global tech powerhouse.

It can be argued, that 5G represents Beijing’s technology policies and national security priorities coverage. In fact, 5G is one of those fundamental technologies that impacts artificial intelligence and automation, robotics and augmented reality, and a lot of the new capabilities that are going to be delivered in terms of smart services that customers will be looking for. 5G encompasses the development of various key wireless communication technology standards.<sup>73</sup> In other words, 5G is designed to connect different devices, machines and vehicles to each other and to the Internet. This chain of connections enables the generation of global data, which will be the basis for artificial intelligence and technological development. Leading these processes is China’s main goal.<sup>74</sup> In these regard, the biggest advantage of China, compared to the Western actors is that 5G adoption in PCR is happening much more quickly than in any other part of the world. Furthermore, given the large population of China and the scale of domestic market, gives it the ability to collect much larger scales of data than other international players.<sup>75</sup>

A clear example of large-scale mobilization towards the development of 5G technologies is the notice of the Ministry of Industry and Information Technology in March, 2020 according to which the basic telecommunication companies should further optimize the work processes of equipment procurement, survey and design; support basic telecommunications companies to target 5G independent networking, control the scale of non-independent networking (NSA) construction, accelerate network construction in major cities, and gradually extend coverage to key counties and towns with conditions.<sup>76</sup> According to the mentioned governmental Communication, local governments are encouraged to incorporate supporting facilities, such as sites for the construction of 5G networks into land and space planning at all levels. It is essential to take into account the deployment needs of 5G sites when building new and expanding public transport, public places, parks, buildings, etc., and to speed up the opening and sharing of public facilities and social site resources such as electricity, transportation, public security, municipality, education and medical care. Furthermore, China focuses on building a 5G security assurance system. Cultivation of 5G networks security industry ecology is also highlighted in the report, and more specifically, active innovation of the 5G security governance model, and promotion of the construction of a security governance mechanism with multi-participation, multi-sector connectivity, and multi-industry collaboration.<sup>77</sup>

Another issue is the promotion of network sharing and roaming across networks, deepen the indoor distribution system, pipeline and supporting facilities of sharing. Guide basic telecommunications

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72 National People’s Congress 中国人民代表大会(2020). 中国人民共和国数据安全法草案(Draft Data Security Law of the People’s Republic of China) August 16, 2020 [online] [Access date: May 21, 2021]. Available from: [http://www.ahwx.gov.cn/zcfg/gfxwj/202007/t20200708\\_4629245.html](http://www.ahwx.gov.cn/zcfg/gfxwj/202007/t20200708_4629245.html), art. 24.

73 LIU Q., SHI X., WANG X., LI J., *5G Development in China: From Policy Strategy to User-Oriented Architecture* [online] Vol. 2017, [Access date: May 23, 2021]. Available from: <https://www.hindawi.com/journals/misy/2017/2358618/#abstract>

74 SCHENKER J. Why China Wants to Lead the 5G Charge. *The Innovator* [online]. March 6, 2018 [Access date: March 6, 2021] Available from: <https://innovator.news/why-china-wants-to-lead-the-5g-charge-249151bee73b>

75 SHI-KUPFER K., & OHLBERG, M. *op. cit.*, note 69, p. 26.

76 Ministry of Industry and Information Technology 推动 5G 加快发展的通知[online]. March, 2020 [Access date: March 6, 2021]. Available from: [http://www.gov.cn/zhengce/zhengceku/2020-03/25/content\\_5495201.htm](http://www.gov.cn/zhengce/zhengceku/2020-03/25/content_5495201.htm) Art. 1.1.

77 *Ibid.*

enterprises to strengthen coordination and cooperation, integrate advantageous resources, carry out 5G network sharing, accelerate the formation of hot spots multi-network co-existing, remote areas of a network bottom network pattern to build resource-intensive and efficient operation of 5G network.<sup>78</sup>

The Covid-19 crisis has catalyzed the push for digital transformation and high-tech development in China. In May 2020, National Development and Reform Commission issued Digital Transformation Partnership Initiative to further help small, medium and micro enterprises to come out from crisis and promote the digital transformation of industry.<sup>79</sup> The main aim was to get rid of the impact of the pandemic as soon as possible and achieve better and faster development with the help of digital means. Moreover, the government has guaranteed efforts in advancing the construction of new infrastructure projects, expand 5G applications and develop next-generation information networks.<sup>80</sup> The important emphasis was on the post-pandemic recuperation means to reboots China's digital competitiveness on the global stage.

Currently China continues to actively use 5G technology to fight the pandemic. One of the important achievements is the integration of 5G technology with artificial intelligence, and ultra- high video technology which gives more people, including COVID-19 patients and special staff access to the technology. Many hospitals have realized remote medical diagnoses and shared real- time clinical treatment detection results of a large number of patients through the 5G network.<sup>81</sup>

## 2.1. China's Digital Silk Road (DSR)

One of the most important factor which differentiates China from its competitors is that its 5G strategy is fully developed at the government level,<sup>82</sup> including through its one of the main global initiatives the "Belt and Road". The latter is largely seen as a state-backed project that promotes the infrastructure development of both sea and land routes and aims to increase China's global dominance by increasing the economic-political dependence of participating states on China. It can be said, that this initiative is a huge scale global project which demonstrates an approach of Chinese government to play a proactive role in terms of international cooperation and expand geopolitical preeminence.<sup>83</sup>

China wants to integrate financial markets and connect countries and cities along the above mentioned initiative with a network of next-generation digital infrastructure and satellite coverage. In May 2017, at the first Belt and Road International Forum, Chinese President Xi Jinping announced that big data would be integrated into the Belt and Road Initiative (BRI) to create the "Digital Silk Road of the 21st century."<sup>84</sup> The DSR offers opportunities to make the Belt and Road Initiative as a whole, more efficient and more sustainable. It is rather future-oriented component of BRI and supports the key objective of boosting China's international prestige, influence and reinforce, its economic, political and military potential.<sup>85</sup>

Within the Belt and Road initiative, China is offering a chance to become the part of the high- speed digital world to countries in Africa and Asia which have less-developed infrastructure. For example, Huawei is

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78 *Ibid.*

79 National Development and Reform Commission 数字化转型伙伴行动倡议[online]. May 13, 2020 [Access date: May 23, 2021] Available from: [https://www.ndrc.gov.cn/xwdt/ztlz/shzxbxd/xdcy/202005/t20200513\\_1227930.html](https://www.ndrc.gov.cn/xwdt/ztlz/shzxbxd/xdcy/202005/t20200513_1227930.html)

80 Economic Watch: China embraces new infrastructure to catalyze new growth drivers. *Xinhuanet* [online] [Access date: May 12, 2021] Available from: [http://www.xinhuanet.com/english/2020-05/22/c\\_139080081.html](http://www.xinhuanet.com/english/2020-05/22/c_139080081.html).

81 China Focus: China accelerates 5G development in wider range of fields. *Xinhuanet* [online] [Access date: May 23, 2021] Available from: [http://www.xinhuanet.com/english/2020-04/08/c\\_138957866.htm](http://www.xinhuanet.com/english/2020-04/08/c_138957866.htm)

82 REARDON, M., 5 G will change the world China wants to lead the way. *Cnet* [online] July 10, 2020. [Access date: May 23, 2021] Available from: <https://www.cnet.com/news/5g-will-change-the-world-and-china-wants-to-lead-the-way/>

83 KUO, L., & KOMMENDA, N., What is China's Belt and Road Initiative? *The Guardian*. [online]. July, 2018, [Access date: June 6, 2021]. Available from: <https://www.theguardian.com/cities/ng-interactive/2018/jul/30/what-china-belt-road-initiative-silk-road-explainer>

84 China's New Silk Road-perception and reality. *DW news* [online] [Access date: May 23, 2021] Available from: <https://www.dw.com/en/chinas-new-silk-road-perception-and-reality/a-38818750>

85 GHIASY R. & KRISHNAMURTHY R., China's Digital Silk Road, Strategic Implications for the EU and India. *LEIDEN Asia Centre 2020* [online] N208 [Access date: May 23, 2021]. Available from [http://ipc.org/issue\\_briefs/issue\\_brief\\_pdf/sr208\\_august2020\\_china%E2%80%99s%20digital%20silk%20road-strategic%20implications%20for%20the%20eu%20and%20india\\_final.pdf](http://ipc.org/issue_briefs/issue_brief_pdf/sr208_august2020_china%E2%80%99s%20digital%20silk%20road-strategic%20implications%20for%20the%20eu%20and%20india_final.pdf) p.6

building Zambia's communications infrastructure from the ground up, and Chinese e-commerce giants Alibaba and Tencent (Wechat) are planning services for small businesses in Southeast Asia.<sup>86</sup> Although there is no comprehensive public record of DSR projects, and some of the figures may not have officially been labelled as part of the DSR by China, according to RWR Advisory Group, a Washington consulting firm that tracks Chinese investments, it can be assumed that by 2018 BRI and DSR-related investments already stood at an estimated US\$79 billion in digital infrastructure projects overseas, and were engaged in diverse telecom projects around the world.<sup>87</sup>

It is noteworthy, that the DSR is not only a foreign policy initiative, but it also has a strong domestic significance. Across the country its objective includes an actualization of Beijing's 'Made in China 2025' goal by developing capabilities in existing and emerging technologies such as quantum computing, driverless cars, cloud computing, and artificial intelligence (AI), among others.<sup>88</sup>

In summary, the Digital Silk Road can be seen as Chinese government's desire to become a superpower in emerging technologies and connectivity. Many efforts are being made to link technological solutions to above mentioned Belt and Road Initiative investments and facilitate even better and adequate connectivity and logistics among involved regions where the West is not very active. This is what alarms the Western policymakers,<sup>89</sup> that Beijing is conducting the export of a Chinese authoritarian techno model to countries along the BRI, shape digital governance norms and set its technological standards. In some context, this is true, as China is attempting to lay a solid foundation for better protection of its own interests and surpass its strategic rivals. So far the direct impact of the DSR is sharply noticeable only in developing countries, regions in Asia and Africa where the initiative is viewed as one of the priority prospects for economic development and improvement of local human capital competitiveness.

## 2.2. "Made in China 2025"

Since the founding of the People's Republic of China, especially since the reforms and opening up, China's manufacturing industry has continued to develop rapidly and has established a complete, independent industrial system. With the advancement of new industrialization, informatization, urbanization and agricultural modernization, the potential for large-scale domestic demand has been continuously released and provided a broad space for development of China's manufacturing industry.<sup>90</sup>

In May, 2015 at the National Congress of the Communist Party of China, the Plenary Sessions of the Eighteenth Central Committee, announced the path of new industrialization with Chinese characteristics, which means the promotion of manufacturing innovation and development, and focus on improving quality and efficiency.<sup>91</sup> Accelerating a new generation of information technology and manufacturing is integrated as the main line, in the document and the main dimension of it is to promote intelligent manufacturing to meet the needs of economic and social development and national defense construction. According to Central Committee, the basic policy includes putting innovation at the core of the overall development of manufacturing industry, improve the institutional environment, promote cross-disciplinary innovation and promote digital network intelligence in manufacturing industry. Second main focus is on quality, specifically construction of regulatory standards and quality supervision system. The plan also emphasizes eco development and application of energy-saving and environmentally friendly technologies; improve

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86 Will China's 5G digital Silk Road lead to an authoritarian future for the internet? *DW news* [online] [Access date: May 23, 2021] Available from: <https://www.dw.com/en/will-chinas-5g-digital-silk-road-lead-to-an-authoritarian-future-for-the-internet/a-48497082>

87 PRASSO, S., China's Digital Silk Road Is Looking More Like an Iron Curtain. *Bloomberg* [online]. January 10, 2019. [Access date: May 23, 2021] Available from: [China's Digital Silk Road Is Looking More Like an Iron Curtain-Bloomberg](https://www.bloomberg.com/news/articles/2019-01-10/china-s-digital-silk-road-is-looking-more-like-an-iron-curtain).

88 CHENEY, C. China's Digital Silk Road: Strategic Technological Competition and Exporting Political Illiberalism. *Pacific Forum* [online] 2019, Vol. 19, WP8. [Access date: May 23, 2021] Available from: [https://pacforum.org/wp-content/uploads/2019/08/issuesinsights\\_Vol19-WP8FINAL.pdf](https://pacforum.org/wp-content/uploads/2019/08/issuesinsights_Vol19-WP8FINAL.pdf) p.3

89 *Ibid.*, p. 13.

90 SHI-KUPFER, K., & OHLBERG, M. *op. cit.*, note 69, p. 29.

91 Chinese State Council, 印发《中国制造 2025》的通知[online] May, 2015 [Access date: March 6, 2021] Available from: [http://www.gov.cn/zhengce/content/2015-05/19/content\\_9784.htm](http://www.gov.cn/zhengce/content/2015-05/19/content_9784.htm)

resource recycling efficiency, build a green manufacturing system, and take the path of ecological civilization. Moreover, the plan insists on the construction of talent as the foundation of building a strong manufacturing power, establish and improve a scientific selection, employment, education mechanism and accelerate the training of manufacturing industry's professional personnel.

According to the party's leaders the concrete plan has three main strategic goals. Step one: by 2025, the overall quality of the manufacturing industry will be greatly improved, innovation capacity will be significantly enhanced and full-time labor productivity will be enhanced. The formation of a group of multinational companies and industrial clusters with strong international competitiveness in the global industrial division of labor and value chain status will be also significantly improved. Step two is oriented by the year 2035, when China's manufacturing industry will reach the middle level of the world's manufacturing power camp. Innovation capacity will be greatly enhanced, overall competitiveness will be significantly enhanced, and leading global innovation capabilities will achieve full industrialization. In the third step phase it will be possible to achieve innovation leadership and obvious competitive advantage in the areas of manufacturing, build the world's leading technology and industrial system.<sup>92</sup>

To achieve all above mentioned goals China tries to strengthen research and development of key technologies and improve innovative design capabilities. Carry out innovative design demonstrations in key areas such as traditional manufacturing and strategic emerging industries, and promote the industrialization of scientific and technological achievements. Improve the operational mechanism for the transformation of scientific and technological achievements.<sup>93</sup> The plan also focuses on strengthening the intellectual property reserves of key core technologies in core manufacturing areas, and build an industrialization-oriented portfolio and strategic layout.<sup>94</sup>

The straightforward involvement of the state in this initiative should also be mentioned. There are direct subsidies and foreign investments from the part of the PRC. More precisely, the government directly supports the relevant industries of the above mentioned initiative through state-owned funds, which include loans and various types of subsidies. At the same time, the state is actively encouraging Chinese companies to invest in foreign companies to gain direct access to high-tech technological advances.<sup>95</sup>

At first glance it is obvious, that "Made in China 2025" is an industrial masterplan of the government and aims to turn the country into the Worlds' largest manufacturing powerhouse. Apparently, the above mentioned strategy is quite ambitious and raises many questions for other international actors, but given the pace and motivation observed in Chinese daily politics, the strategy looks realistic and executable. Beijing's ultimate goal is to reduce China's dependence on foreign technology, promote Chinese high-tech manufacturers in the global marketplace and enhance the competitiveness of its enterprises on domestic markets.

### 3. The Artificial Intelligence ecosystem in China

As mentioned in previous chapters, artificial intelligence is as global phenomenon and one of the main tools for gaining international leadership in the digitalization process. Apparently, the Chinese view and its particular case is interesting, as the government is directly involved in processes of shaping the geopolitical environment of AI that will be more favorable for its national interest.

Digital technologies, especially AI, are crucial elements of the China's digital national strategies and various global initiatives, including the above mentioned Belt and Road Initiative. In this context, it is important to note once again the key factors that distinguish China from Western players. It is primarily the use of technology for high social control and maintenance of public order, as well the strict application of national

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92 *Ibid.*

93 MCBRIDE, J. & CHATZKY, A., Is "Made in China 2025" a Treat to Global Trade? *Council on Foreign Relations* [online] May 13, 2019. [Access date: May 23, 2021] Available from: <https://www.cfr.org/background/made-china-2025-threat-global-trade>

94 Chinese State Council. loc. cit., note 91.

95 MCBRIDE, J. & CHATZKY, A., loc. cit., note 93.

laws to cyberspace.<sup>96</sup> The AI innovation ecosystem in China is most developed in the fields of image, face and voice recognition, together with the techniques that support such fields. Accordingly, the main focus of the highly developed applications is related to security, transport and traffic managements, commerce and driverless cars.<sup>97</sup>

The considerable potential of AI is very clear to China's policymakers. The development of this field is so important for China that it is one of the main national priorities of the state, directly controlled by Xi Jinping and is included in the President's grand vision for China. At the 17<sup>th</sup> General Assembly of the Members of the Chinese Academy of Science and the 12<sup>th</sup> General Assembly of the Members of the Chinese Academy of Engineering, President Xi Jinping in his speech stated the following: "To carry out the innovation-driven strategy, the basic thing for us is to enhance our independent innovation ability, and the most urgent thing in this regard is to remove institutional barriers so as to unleash to the greatest extent the huge potential of science and technology as the primary productive force. Most importantly, we should unswervingly follow an independent innovation path featuring Chinese characteristics, stick to the guiding principles of independent innovation, leap-frogging development in key sectors, and development supported by science and technology and oriented towards the future, and speed up the pace of building an innovative country."<sup>98</sup> This statement clearly shows the great will and determination of the government to lead the world in AI by 2030 and become a shepherd in terms of technological transformation.

In July 2017, China's New Generation Artificial Intelligence Development plan (新一代人工智能发展规划) was released by The State Council of China. In the document three main strategic goals were highlighted. The original paper outlined a plan for 2020, that overall artificial intelligence industry should be synchronized with the world's advanced level and become a new point of economic growth. The second important point is to achieve a major breakthrough in the research and investigation of artificial intelligence theories by 2025, and reach the world's leading level. There was highlighted several times the importance of the mentioned field for China's industrial upgrading and economic transformation. Moreover, the positive effects for the construction of an intelligent society. The time period for achieving the third goal is by 2030, when Chinese artificial intelligence, technology and applications will generally become the world's major innovation hub and the forefront of innovative economic power.<sup>99</sup>

Interestingly, this ambitious plan raised many questions and some doubts in the West. In July, 2017 there was an article published in the New York Times by title "Beijing Wants A.I. to be Made in China by 2030" about China's technological development plan. The latter highlighted China's intension to surpass its rivals and the aim to breakthrough in selected spheres within the AI and foster a new national leadership. Author also noted the counter-events in the US, in particular the Trump administration's suggestion in budget proposal to cut in funding's for the scientific fields that support research in AI, that would directly affect the development of AI's important tools.<sup>100</sup> The article was a clear demonstration of the warning alarm in the West what was created around the ambitious strategy put forwarded by China.

It is interesting to mention China's development of basic principles in the field of AI, as one of the main areas of technological innovation and industrial development. On June 21, 2020 during Beijing Artificial Intelligence Conference, hosted by Beijing Artificial Intelligence Research Institute Vice Minister of the Ministry of Science and Technology, pointed out in his speech that the central government attaches great importance to the innovative development of artificial intelligence and puts forward the development idea of deep integration of artificial intelligence and the real economy. He also noted that it is important to rely on leading companies to build new- generation artificial intelligence open innovation platforms in different countries, including

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96 CRAGLIA, M., ANNONI, A., BENCZUR, P, and others., *op. cit.*, note 41, p. 47.

97 *Ibid.* p. 49.

98 JINPING, X., *The governance of China* [online] 1st ed, 2014. Beijing: Foreign Languages Press. [Access date: May 24, 2021] Available from: <https://www.bannedthought.net/China/Individuals/XiJinping/XiJinping-TheGovernanceOfChina.pdf> p.139

99 Chinese State Council, 新一代人工智能发展规划 July, 2017 [online] [Access date: March 6, 2021] Available from: [http://www.gov.cn/zhengce/content/2017-07/20/content\\_5211996.htm](http://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm)

100 MOZUR, P, Beijing wants AI to be made in China by 2030. *New York Times* [online]. July 20, 2017 [Access date: May 24, 2021] Available from: <https://www.nytimes.com/2017/07/20/business/china-artificial-intelligence.html>

autonomous driving and intelligent supply chain, promote artificial intelligence governance, and publish the Principles of new generation of Artificial Intelligence Governance. Representative also pointed out, it is believed that it can be in the forefront of the country in the development of artificial intelligence, adhere to original leadership, reform leadership, and open leadership, and unite international forces to promote AI resistance.<sup>101</sup>

This conference draws attention because, on the one hand, the AI one more time was identified as one of the main strategic tools to its future economic and social development and on the other hand, underlined China's ambition to become the leading force in international cooperation in terms of developing the artificial intelligence and its government.

As mentioned above, China has put in place a deeply coordinated approach to AI, which consists of governments national policy, the largest companies' close connection with the government, profound researches of the field and industrial applications. Through these measures PRC is attempting to become the world leader in AI by 2030. This plan can be evaluated as a very ambitious but achievable one, depending on the next steps of the Chinese government, the reactive actions and developments of its competitors and the general geopolitical environment. It is noteworthy, that despite the rapid technological development there are some shortcomings that we will discuss in the following sections, and there will be the need on behalf of China to fulfil the gaps in order to achieve this goal.

### 3.1. Civil-military integration (CMI, 军民融合)

This Master dissertation has analyzed China's future digital strategic plans, its technological progress and significant achievements, as well as its national and international interests, which at first glance are mainly related to economic and political motives. In fact, behind this ambitious strategic planning we can look for no less important factor, which is related to increasing military advantage and warfare capabilities.

In this regard the civil-military integration (CMI) is an important high-level national strategy still since 2014. The main objective of the latter is to promote closer civil and military integration in the national defense, science and technology industry, through sharing and coordinating more and more information and resources between the military and civilian institutions. China's goal is to gain greater control of digital infrastructure.<sup>102</sup>

The same goal is pursued by the so-called Military Science Research Steering Committee (军事科学研究指导委员会) which was launched in 2017, with the idea of revitalizing the military forces through technology and collaboration between civilian and military authorities.<sup>103</sup> Xi Jinping has repeatedly emphasized the importance of technological innovation in military reform. In March 2017, during a speech to military delegates to the National People's Congress, he said, "We must have a greater sense of urgency to push for science and technology innovation and advancement with greater determination and efforts."<sup>104</sup> Taking into account the profound impact of the rapid development of science and technology on the development of the world's military forces, Xi Jinping asked the entire army to seek combat effectiveness from technological innovation.

Although there is no extensive information on the goals and area of operation of the mentioned agency, we can assume that the main dimension may be the identification and selection of important high-tech projects

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101 2020 北京智源大会 “云上” 开幕, 中外顶尖学者畅想 AI 的下一个十年[online] [Access date: May 24, 2021] Available from: [https://www.baai.ac.cn/news/20200621\\_01.html](https://www.baai.ac.cn/news/20200621_01.html)

102 SHI-KUPFER, K., & OHLBERG, M. *op. cit.*, note 69, 20.

103 NI, A., China Reveals New Military Technology Agency. *The Diplomat* [online]. July 28, 2017. [Access date: May 24, 2021] Available from <https://thediplomat.com/2017/07/china-reveals-new-military-technology-agency/>

104 Towards a splendid spring of revitalizing the army with science and technology-Chairman Xi Jinping's important speech at the plenary meeting of the PLA delegation caused a warm response. *Xinhuanet* [online]. March 13, 2017. [Access date: May 24, 2021] Available from : [http://www.xinhuanet.com//politics/2017lh/2017-03/13/c\\_1120614375.htm](http://www.xinhuanet.com//politics/2017lh/2017-03/13/c_1120614375.htm)

at the very initial stage, deepen civil and military integration, thus accelerate military modernization and ultimately, build up technologically competitive, effective and advanced military forces.<sup>105</sup>

## 4. Challenges for China

Despite many competitive advantages, state's great support and declaring the issue as a national interest of the country, still there are many internal and external challenges that may affect the development of China's digitalization strategy.

First of all, should be noted the low level of digitalization of the manufacturing industry comparing to other economies. Although China has a great potential for economies of scale and digital industrial platforms, however unequal digital connectivity of manufacturing equipment across various industries burdens the deployment and development of large-scale cross-sectorial platforms.<sup>106</sup>

When discussing the challenges, it is crucially important to mention the expected negative effects that may result from such an active intervention of the government in the current processes. The excessive realization of investments may lead to an inefficient allocation of funds. There is also the lack of centralized data management to efficiently use these platforms.<sup>107</sup> The Head of the Centre for Artificial Intelligence and Robotics at UNICRI, United Nations, Irakli Beridze in his interview rightly argued about the side effects of such a high-level intervention by the state. According to him, such a policy leads to a crisis of innovation, reduced competition and lack of creativity that obviously could affect general competitiveness of China.<sup>108</sup>

Another important factor is the lack of human resources. The digitalization process automatically implies a radical change in the employment market and adaptation to the new model, therefore, it is necessary to have a sufficient number of relevant staff, which, surprisingly, is a big challenge even in the case of China.<sup>109</sup> According to CCID Consulting- China's industrial software development white paper 2019, it is crucially important to strengthen the joint training mechanisms of professionals and talent introduction policy for future recruitments.<sup>110</sup>

Chinese researchers and analysts are already actively arguing about the need to increase human resources and call on the relevant structures to work on this issue as soon as possible, because then it will be virtually impossible to meet the market demand. Another important issue is related to inequality and existing gap across Chinese provinces and sectors, which directly reflects the diverse stages of economic development inside the country.<sup>111</sup>

As we can see, there are many obstacles in China that could prevent the latter from becoming a number one powerhouse of digital transformation. Much depends on the state's further steps and developments. Still, one of the biggest advantages for China in terms of fulfilling existing gaps is that private sector, investors and government are working together, as they consider their objective to be national interest.

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105 NI, A., loc. cit., note 103.

106 ARCESATI, R., HOLZMANN, A., MAO Y., and others. China's Digital Platform Economy: Assessing Developments Towards Industry 4.0. MERICS [online] [Access date: May 24, 2021] Available from: MERICSReportDigitalPlatformEconomyEN02.pdf p. 30.

107 SHI-KUPFER, K., & OHLBERG, M, *op. cit.*, note 69, p. 8.

108 See the appendix document n. 1.

109 ARCESATI, R., HOLZMANN, A., MAO Y., and others, *op. cit.*, note 106, p. 31.

110 CCID Consulting. 中国工业软件发展白皮书 [online] [Access date: May 26, 2021] Available from: [https://zhizhi88.com/wp-content/uploads/2019/09/%E8%B5%9B%E8%BF%AA\\_2019%E5%B9%B4%E4%B8%AD%E5%9B%BD%E5%B%207%A5%E4%B8%9A%E8%BD%AF%E4%BB%B6%E5%8F%91%E5%B1%95%E7%99%BD%E7%9A%AE%E4%B9%A6.pdf](https://zhizhi88.com/wp-content/uploads/2019/09/%E8%B5%9B%E8%BF%AA_2019%E5%B9%B4%E4%B8%AD%E5%9B%BD%E5%B%207%A5%E4%B8%9A%E8%BD%AF%E4%BB%B6%E5%8F%91%E5%B1%95%E7%99%BD%E7%9A%AE%E4%B9%A6.pdf) p. 29.

111 FAGGELLA, D., AI in China-Recent History, Strengths and Weaknesses of the Ecosystem. *The AI Research and Advisory Company* [online] [Access date: 26 March, 2021] Available from: <https://emerj.com/ai-market-research/ai-in-china-recent-history-strengths-and-weaknesses-of-the-ecosystem/>



# Chapter IV. The EU-China digital connectivity

The digitalization has a central role in the promising future of China and the EU relations as digital transformation will be key for the development of innovative, interconnected and efficient economies. Both the EU and China have emphasized the ambition to drive the digital transformation process and take up a leading position. E-government, e-economies, e-commerce, e-globalization and data sharing is the future of world society.

At first glance, as explained in the previous chapters, it is clear that China and the EU, have radically different strategies and their tools of acting in the international arena are non-identical. These differences also apply to the management of digitalization processes. Both parties independently implement their own strategy and have an individual approach. When we argue about actions of these international actors of a multipolar world, a key question arises: whether China and the EU are strategic rivals, competitors or partners? In order to answer this question, we need to keep in mind some turning points, developments and reached progress that have been made in connectivity projects between the two parties over the past decades and see if we can discuss some possible connectivity between them in specific fields and if there is a potential chance and need for a constructive and rational cooperation between them.

## 1. European politics in the face of the Chinese challenge

As already mentioned, China's rapid advancement in the international arena and its growing self-confidence which has translated into a strong national, regional and global agenda, has led to the emergence of a new geopolitical reality and the attitudes and relations of different countries towards China have gradually changed. The European Union is among them. In recent years, China has managed to establish significant economic, which is the dominant factor in bilateral Euro-Chinese relations, diplomatic, commercial and media ties within the EU and its neighbourhood.

China, as a trading and financial partner, is essentially important for many European countries. Although the COVID19 pandemic caused many disruptions, 2020 was still quite active and successful in bilateral economic cooperation. The volume of cargo transported via the China

Railway Express (CRE) train line to Europe grew significantly and China's trade with the EU's 27 members in 2020 reached 586 billion, which exceeds the EU-USA trade volume. This made it possible for China to become Europe's largest trading partner.<sup>112</sup> We can argue that these relations are not easy because, as it involves important opportunities and at the same time some challenges for European politics.

In addition to the essential systemic differences and the gap on values, the situation is complicated by the fact that the EU member states do not have a common position on China and each of them independently conducts bilateral negotiations with the PRC according to their own interests.<sup>113</sup> For example, the position of France and Germany is distinguished by being assertive and implemented by concrete measures. They are particularly concerned by China's growing role in the international arena and its competitive impact on the European market. They are actively seeking to strengthen European industrial policy and increase the role of the State to ensure the relevance of European companies in economic sectors of global market.<sup>114</sup> In this regard, the 21<sup>st</sup> century's Franco-German Manifesto on European industrial policy is essentially important, as it highlights modern challenges in the process of digitalization, artificial intelligence and radical changes in other crucial sectors. Through the Manifesto the parties call for a more ambitious European industrial

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112 ANTHONY I., ZHOU J., YUAN J., SU F., KIM J., *op. cit.*, note 30, pp. 19-21.

113 GODEMENT, F. & WACKER, G., France and Germany Together promoting a European China Policy. *Institut Montaigne* [online]. 2020 [Access date: May 26, 2021] Available from: <https://www.institutmontaigne.org/en/publications/promoting-european-china-policy-france-and-germany-together>

114 ESTEBAN, M & IGLESIAS M., La política europea frente al desafío chino. Real Instituto Elcano [online] 2019 [Access date: May 26, 2021] Available from: [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)

strategy with clear objectives. The main aim is to make Europe more competitive in the face of global industrial competition and take effective measures to protect the EU common interest.<sup>115</sup>

On the other hand, there is the position of countries like Denmark and Finland which are characterized by reluctance to face economic competition with China. For both above mentioned countries trade is a key factor in relations with Beijing and political ties have remained stable with a focus on the economy for several decades. This is evidenced by the Comprehensive Strategic Partnership (CPS) agreement between Denmark and China,<sup>116</sup> or the Joint Declaration between Finland and China in 2017, establishing and promoting a future-oriented new-type of cooperative partnership. For Finland the bilateral partnership declaration was a complementary part for the strategic partnership between the EU and China.<sup>117</sup>

The bilateral relations of Southern and Eastern Europe with China are also noteworthy because of their strong economic ties. This process is evident, taking into account their internal economic and financial difficulties. Chinese investments are much more attractive and necessary for those European countries.<sup>118</sup> The clear demonstration of these bilateral ties is “The New Silk Road Initiative”. On June 10, 2015, Hungary became the first European country to sign the “New Silk Road Economic Cooperation Agreement” and this measure also became a significant boost for other post-communist European countries of Central and Eastern Europe to form an important part of the Belt and Road Initiative (BRI). In this dimension, the “17+1” mechanism is important, as it brings together 16 Central and Eastern European countries and China (the “+1”). From the 16 countries 11 are EU member states, four are EU candidate countries, and one is a potential candidate state.<sup>119</sup> The growing number of these kind of connections in the European region suggests a much broader and complex challenge in EU affairs.<sup>120</sup>

Heterogeneity is also observed in the field of digitalization. Countries who have signed Digital Silk Road-specific MOU with China, include following European states: Poland, Hungary, Czech Republic, Estonia, Serbia and the UK.<sup>121</sup> Furthermore, Chinese giants have different distribution areas across Europe. For instance, Alipay has partnered with digital wallets such as Vipps (Norway), Bluecode (Austria), ePassi and Pivo (Finland), Momo Pocket (Spain), Pagaqui (Portugal), and has picked up a minority stake in Klarna (Sweden).<sup>122</sup>

As noticed above, different bilateral relations under distinct conditions with China demonstrates that the member states are not yet ready to merge the corresponding powers or central coordination in relevant fields of policy towards China to the EU level. There is hardly a single agreed policy that clearly defines the scope of both cooperation and competition with Beijing, and at the same time, principles acceptable to all parties.

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115 A Franco-German Manifesto for a European industrial policy fit for the 21<sup>st</sup> Century, February 19, 2018, N1043 [online] 2019 [Access date: May 26, 2021]. Available from: <https://www.bmwi.de/Redaktion/DE/Downloads/F/franco-german-manifesto-for-a-european-industrial-policy.pdf%3Fblob%3DpublicationFile%26v%3D2>

116 Ministry of Foreign Affairs of the People's Republic of China, Deepening China-Denmark Comprehensive Strategic Partnership and Building a Model for China-Europe Cooperation. May 11, 2015 [online] [Access date: March 6, 2021] Available from: [https://www.fmprc.gov.cn/mfa\\_eng/zxxx\\_662805/t1262644.shtml](https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1262644.shtml)

117 GAENS, B., & KALLIO, J., Finland's Relations with China and the US. En: *Europe in the Face of US-China Rivalry*. [online]. Madrid, Spain: ESTEBAN, M., & OTERO-IGLESIAS, M., January, 2020. [ Access date: May 26, 2020] pp. 57-63. Available from: <http://www.realinstitutoelcano.org/wps/wcm/connect/82e36c36-03a1-40f2-81a0-9a78ea6dfa95/ETNC-Europe-in-the-face-of-US-China-rivalry.pdf?MOD=AJPERES&CACHEID=82e36c36-03a1-40f2-81a0-9a78ea6dfa95> p. 61

118 HELLENDORFF, B., & NICHOLAS RUHLING, T., The EU's Reactive Approach to Rising Tension Between the US and China. En: *Europe in the Face of US-China Rivalry*. [online]. Madrid, Spain: ESTEBAN, M., & OTERO-IGLESIAS, M., January, 2020. [ Access date: May 26, 2020] pp. 179-185. Available from: <http://www.realinstitutoelcano.org/wps/wcm/connect/82e36c36-03a1-40f2-81a0-9a78ea6dfa95/ETNC-Europe-in-the-face-of-US-China-rivalry.pdf?MOD=AJPERES&CACHEID=82e36c36-03a1-40f2-81a0-9a78ea6dfa95> p. 181.

119 KAVALSKI, E., China's "16+1" Is Dead? Long Live the "17+1." *The Diplomat*. 2019, [online] [Access date: May 26, 2020] Available from: <https://thediplomat.com/2019/03/chinas-16-1-is-dead-long-live-the-17-1>

120 *Ibid.*

121 TRIOLO, P., ALLISON, K., BROWN, C., BREODERICK, K., The Digital Silk Road: Expanding China's Digital Footprint. *Eurasian Group*, 2020 [online]. [Access date: May 26, 2020] Available from: <https://www.eurasiagroup.net/files/upload/Digital-Silk-Road-Expanding-China-Digital-Footprint-1.pdf> p. 2.

122 GHIAS, R. & KRISHNAMURTHY, R., *op. cit.*, note 78, p. 12.

It is interesting to note, how China perceives this situation from the perspective of the Far East. The heterogeneity within the EU is viewed as an opportunity to achieve its national interests through deepening bilateral relations with EU member states, taking into account their different political and socio-economic needs. Chinese analysts are actively observing the current political developments in the EU and the significant challenges which the old continent faces. The general geopolitical context, more specifically the Sino-US competition, gives Beijing reason to start thinking about alternative cooperations. In this context, the EU, as a strong international institution, is a potentially valuable economic partner with strong market and technological knowledge and power for China and is viewed as a kind of balance in a multipolar world. Although, as mentioned above, China's active bilateral relations with various European countries can be viewed as a complement to existing EU-China cooperation as, it still considers the EU to be an essentially important body for engagement with Europe.<sup>123</sup>

### 1.1 .The EU-China Trade Deal

By the end of 2020, bilateral relations between these two geopolitical actors had deepened even more and had transformed to a new stage of development. On December 30, 2020, after a long process of negotiations, the EU and China reached a Comprehensive Agreement on Investment (CAI) with a main objective of strengthening economic relations, trade and investment for sustainable development. Above all, to create a better climate to facilitate and develop trade and investment between Parties. This agreement came after a call between the Chinese President, Xi Jinping and the President of the European Commission, von der Leyen, the President of the European Council, Charles Michel, and the German Chancellor, Angela Merkel, on behalf of the Presidency of the Council of the EU, as well as the French President, Emmanuel Macron.<sup>124</sup>

This Investment Agreement is essential for both parties due to its special conditions. This agreement will allow significant access to the Chinese market for European investors, and will help their business to operate and compete in the fastest growing market in China.

Under the agreement, China also commits to make EU investments in various service sectors, such as financial services, private healthcare and environmental services, and in these covered sectors, European companies will gain security and predictability for their operations. One of the most important directions of the agreement is to provide China-EU mutual investment with greater market access, a higher level of business environment, greater institutional guarantees and better prospects for cooperation.<sup>125</sup>

In case of complete fulfillment of the conditions set by the parties, the agreement represents a great potential for the development of economic cooperation, which is necessary for the reconciliation of bilateral relations. Both actors are interdependent in many respects, so finding a common point with a focus on compromise and common interests is crucial. Furthermore, this type of agreement highlights the Chinese vision of the EU as a relevant actor in its global dimension and also the importance of combining on the one hand a multilateral strategy with the EU and bilateral aspect with the member states in parallel.

## 2. Development of Digital Dialogue between EU and China

COVID 19 pandemic has made it even more obvious that digital transformation is the future of humanity, as it will ensure the development of an innovative and efficient economy, as well as national security and will raise the country's competitiveness. The process of reconstructing digital innovations and creating a business environment based on common standards is a considerable interest of each global actor. Along

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123 ANTHONY I., ZHOU J., YUAN J., SU F., KIM J., *op. cit.*, note 30, pp. 15-17.

124 EUROPEAN COMMISSION. *EU and China reach agreement in principle on investment (press release)* [online]. December 30, 2020 [Access date: May 27, 2021] Available from: [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_2541](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2541)

125 *Ibid.*

this line the international community agrees that there is a necessity to strengthen multilateral and bilateral cooperation to create a fundament for a universal digital agenda.<sup>126</sup>

It can be argued that digital connectivity is an area of both cooperation and competition in relations between the European Union and China. On the one hand, technological innovation, artificial intelligence, robotics development, data-sharing and creation of database, the use of common digital platforms is essentially important both on national and international level. It is in the interest of these two actors to develop common technical standards and international cyber norms to create conditions for healthy and fair competition.<sup>127</sup> On the other hand, existing systemic, ideological, cultural and political differences among them rather complicate the negotiation process.

It should be noted that China and the EU have a solid ground for cooperation in some areas, as for example, Science & Technology. In this framework the important agreement about development and facilitated cooperation in scientific research was signed even earlier, in 1998 and on this base has created a special committee to manage the compliance of the agreement.<sup>128</sup> It was renewed in 2004 with the main focus on strategically important specific research areas, as well as strengthening the free mobility of professionals and taking some practical measures for further research activities. The bilateral high-tech dialogue among EU-China deepened in 2009. An important step was taken through the establishment of the Science and Technology Partnership Scheme between the Chinese Ministry of Science and Technology and the European Commission (CESTYS) which aimed to launching joint strategic projects based on mutual interest and values.<sup>129</sup>

Later in 2013 during the 16<sup>th</sup> EU-China Summit a new “EU-China 2020 Strategic Agenda for Cooperation” was agreed with the initial focus on support and promotion of secure and resilient open cyberspace. On the other hand, parties emphasized the necessity of effective government of Internet and communication technology with information society.<sup>130</sup> In 2015 the EU and China signed a milestone agreement in the global race to develop 5G networks in the framework of EU- China High Level Economic and Trade Dialogue in Beijing.<sup>131</sup> On that occasion Commissioner Günther Oettinger said: “5G will be the backbone of our digital economies and societies worldwide. This is why we strongly support and seek a global consensus and cooperation on 5G. With today’s signature with China, the EU has now teamed up with the most important Asian partners in a global race to make 5G a reality by 2020. It’s a crucial step in making 5G a success.”<sup>132</sup> This declaration emphasized the possible cooperation in terms of joint research actions, promotion of global standardization for 5G and global understanding of basic functionalities and key technologies.

In the above mentioned context, the Horizon 2020 was considered as a new opportunity for the EU and China to collaborate. The Co-Funding Mechanism (CFM) is a joint initiative launched by parties to support research and innovation projects and collaborate in strategic areas through the framework of Horizon 2020. It was first agreed at EU-China Innovation Cooperation Dialogue in June. Through this mechanism, Chinese Ministry of Science and Technology had to grant funding to China-based participants of the Horizon 2020.<sup>133</sup> Within the framework of the mentioned agreement the parties emphasized the importance of strengthening cooperation

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126 MOGNI, A., & GOETHALS, A., Perspectives on an EU Dialogue with China on Digitalization. *EIAS European Institute for Asian Studies* [online]. June, 2020. [Access date: March 27, 2021] Available from: [https://www.eias.org/wp-content/uploads/2019/07/Policy-Brief-5G\\_Mogni\\_Goethals\\_EU-CN-Dialogue-Digitalization.pdf](https://www.eias.org/wp-content/uploads/2019/07/Policy-Brief-5G_Mogni_Goethals_EU-CN-Dialogue-Digitalization.pdf) p. 2.

127 *Ibid.*, p. 3.

128 Horizon 2020: New Opportunities for EU-China Collaboration [online]. [Access date: April 15, 2021] Available from: <https://euraxess.ec.europa.eu/worldwide/china/collaboration-opportunities>

129 *Ibid.*

130 ANTHONY I., ZHOU J., YUAN J., SU F., KIM J., *op. cit.*, note 30, p. 49.

131 EUROPEAN COMMISSION. *EU and China signed a key partnership on 5G, our tomorrow's communication networks (press release)* [online]. September 28, 2015 [Access date: April 17, 2021] Available from: [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_15\\_5715](https://ec.europa.eu/commission/presscorner/detail/en/IP_15_5715)

132 MOGNI, A., & GOETHALS, A., *op. cit.*, note 126, p. 6.

133 The EU-China Co-Funding Mechanism [online]. [Access date: April 17, 2021] Available from: <http://chinainnovationfunding.eu/eu-china-co-funding/>

in the following areas: planning of joint research activities and simplification of participation in 5G projects for European and Chinese enterprises, global standardization of 5G, discovering new opportunities for joint research in the area of the Internet of Things (IoT). Both parties were also committed to ensure reciprocity and openness in terms of access to 5G networks' research funding, and market access, as well as in Chinese and EU membership to 5G associations.<sup>134</sup> This agreement was important for the EU because at that time China was likely to be a major player in the development of 5G and would play a substantial role in establishing 5G global standards. In this context, the 5G DRIVE program should also be mentioned, the main goal of which was to implement joint research activities between the EU and China during the 2018-2021 period. This innovation project also was founded under the framework of Horizon 2020 Framework program.<sup>135</sup>

Starting from mid-2018, the EU position towards a strengthening of European digital dialogue with China became more cautious. In 2019 with EU-China strategic outlook the Commission emphasized the need of expanding frameworks in energy and digital connectivity, and more balanced economic relationship.<sup>136</sup> The EU through this outlook tried to distinguish different dimensions of its bilateral relations with China, using diverse terms to define these extents. The most important narrative, observed in this strategy was that labeled China as "cooperation and negotiation partner, but at the same time, an economic competitor and a systemic rival".<sup>137</sup>

On September 14, 2020 the EU Commission and China hold the first high-level Digital Dialogue which identified priorities in the digital transformation of both the EU and China's economies and other important fields. The parties focused on issues like Artificial Intelligence, Digital Taxation, Research and Innovation and Communication Technologies standards. The Commission stressed that the EU stands ready to cooperate with China based on principles of sustainability, reciprocity and level playing field.<sup>138</sup>

As we could see, digital transformation, technological innovation and artificial intelligence are one of the most important areas in terms of bilateral cooperation and have a fairly long history, characterized by different narratives. This relationship takes on a new dimension in the post-Covid 19 recovery process and its development depends on the will of the parties and their geopolitical intentions.

### 3. Perspectives for EU-China Digital cooperation

It can be considered, that Sino-European scientific research Cooperation is one of the crucial collaboration fields between these actors. Given the economic interdependence, agreement and cooperation on issues that are in the direct interests of both parties could bring positive results for both China and the EU in the digital transition phase. Such interest is in the high-level scientific research and innovation.<sup>139</sup> It is important to concentrate on intellectual resources, training relevant personnel and cultivating sophisticated talents. Sino-EU scientific research cooperation and mutual support can be considered in both, multilateral and bilateral context, which envisages joint cooperation of professionals from the participating countries, conducting research, creating joint scientific papers, and even establishing the joint research technological platforms. They can cooperate in key areas where the main interests and visions align, definitely based on the reciprocity dimension. Both parties need to find the right implementable framework to rebalance this type of relationship.

In this context, one important aspect should be taken into account. As a result of the US-China rivalry, the barriers imposed by Washington on Chinese students may be seen as a new opportunity for Europe to attract

134 EUROPEAN COMMISSION. loc.cit., note 124.

135 About 5G-Drive. *5G Drive* [online] [Access date: March 13, 2021] Available from: <https://5g-drive.eu/about-5g-drive/>

136 Joint Communication of European Commission to the European Parliament, The European Council and the Council "EU-China- A strategic outlook" March 12, 2019. JOIN (2019) 5 final. pp. 1-10.

137 GODEMENT, F & WACKER, G., loc. cit., note 113.

138 EUROPEAN COMMISSION. *EU-China: Commission and China hold first High-level Digital Dialogue (press release)* [online]. September 14, 2020 [Access date: March 20, 2021] Available from: [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_20\\_1600](https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1600)

139 中国-欧盟科技合作现状分析与建议 [online]. [Access date: May 3, 2021] Available from: <https://www.163.com/dy/article/FBDK9VDJ0511B355.html>

the talent of Chinese researchers<sup>140</sup> and to some extent become a substitute of the US. Besides, China's growing innovation system could be considered as one of the most valuable opportunities for European firms and the need to cooperate has become even clearer in the face of the pandemic.<sup>141</sup>

In addition to cooperation in scientific research papers and research projects, China and the EU could also actively develop the cooperation and construction of innovation centers. The existing joint innovation centers are mostly government-led and are divided according to the function.<sup>142</sup> There are some advisory services, innovation cooperation platforms and integrated service platforms. First direction, advisory services include the China-EU Offices for the promotion of Science and Technology cooperation established by the Ministry of Science and Technology of China, which also helps Chinese institutions and scholars to participate in different EU Programs, focusing on information consulting services. One of such important cooperation platform has been in place since 2006, established through the efforts of the EU and Chinese governments. It represents the EU project Innovation Center in Chinese city of Chengdu.<sup>143</sup> In November 2020 during the 15th EU-China Business & Technology Cooperation Fair in Chinese city of Chengdu, three main priorities for bilateral cooperation have pointed out, including new opportunities for the EU-China cooperation in digital trade, bilateral Comprehensive Investment Agreement and cooperation in the framework of green partnership.<sup>144</sup> Above mentioned events mainly promote commercial, technological and research internationalization services for EU-China technology.

Speaking about possible cooperation between China and the EU in terms of digital transformation Irakli Beridze stressed the structural differences between the two actors, but also noted, that given their economic or other kind of interdependence, this could be a chance for both sides. According to him, the European market is a key for Chinese companies, and in order to benefit from it, companies will have to somehow adapt to European regulations, otherwise they will lose market access. On the other hand, Mr. Irakli noted that Europe will have the opportunity to disseminate its worldview and ideological values on scientific policy level.<sup>145</sup>

The areas of Research & Innovation and standardization can be seen as another opportunity for both Chinese government and the EU institutions to become partners, although in the process of bilateral collaboration, there will obviously be certain risks and threats for the EU, and in order to regulate this relation the latter will need to make a large amount of investment in risk estimation and encourage the development of equal collaboration on the base of reciprocity principles. On the other hand, as mentioned in previous chapters, the common position of the EU member states will be essential, including raising awareness among state entities, firms and educational institutions about research and innovation partnership with China, as well as the development of common standards and setting up red lines for partnerships.

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140 ZWETSLOOT, R., The U.S. needs multilateral initiatives to counter Chinese tech transfer. *Brookings* [online]. June 11, 2020. [Access date: May 27, 2021] Available from: The U.S. needs multilateral initiatives to counter Chinese tech transfer (brookings.edu).

141 ARCESATI, R., Competing with China in the digital age. China's Digital Rise. En: *Towards a "Principles-First Approach" in Europe's China Policy, Drawing lessons from the Covid-19 crisis*. [online]. Edited by Huotari, M., Weidenfeld, J., September 2020, [Access date: March 6, 2021] No9, pp. 47-54, ISSN: 2509-5862. Available from: <https://merics.org/sites/default/files/2021-03/Merics%20Papers%20on%20China%20EU-China%20final%201.pdf> pp. 48-50.

142 中国-欧盟科技合作现状分析与建议, loc.cit., note 139.

143 *EU Project Innovation Centre* [online]. [Access date: April 4, 2021] available from: <https://een.ec.europa.eu/about/branches/cn00256>

144 Focusing on Digital Economy and Intensifying EU-China Pragmatic Cooperation [online]. *IDG World Expo* [Access date: April 4, 2021] available from: Focusing on Digital Economy and Intensifying EU-China Pragmatic Cooperation (prnewswire.com).

145 See the appendix document n. 1.

# Conclusions

Based on the information available after the research and investigation, we can come to some interesting conclusions related to the hypotheses mentioned at the beginning of the paper.

The first hypothesis was about shaping the role of Europe as an independent international actor in terms of US-China rivalry, specifically in the process of digital transformation. Technological independence must first be considered as an important basis for geopolitical and economic self-reliance. Given the fact that the coming era will depend entirely on the analysis and supply of an incredibly large amount of data, actions of manipulation, as, for example, suspension of access to digital services by the actors controlling that processes may take place, which is in no way conducive to such a unique international actor as the European Union. In this context, as research has shown, the competition between global powers is becoming even more critical and is defining a new geopolitical reality, where Europe needs to take a position for defending its own interests. We can consider several affirmations:

The Chinese and American models of digital transformation developments are quite ambitious and radical, in some context. None of them reflect the fundamental principles of the EU. Chinese model is characterized by authoritarian components where personal data security is superfluous and the government involvement in these processes is relatively high. The US's strategy is characterized by the huge emphasis on economic goals and in some cases even at the expense of data preservation vulnerabilities. The great number of data is controlled by giant corporations. For Europe it is more pragmatic to reduce the external dependency and relay on its own local technology sectors.

To achieve this goal, it is also essential for the EU to find the right balance between its fundamental values and the maintenance of global competitiveness. It is true, that the EU's digital strategy has unique characteristics, as it focuses on the privacy and data protection in many areas of digital technology, but there is the need to boost technological and industrial capacity of the latter and put the emphasis on more transparent collaboration among member states. EU should shape a united robust position, which should be shared by the majority of states. The problem of fragmented data as an obstacle, should be eliminated. The main objective for the EU should be to stay competitive in the strategic value chains of the future and apply all defensive tools to protect strategically important technologies and infrastructures.

Europe is in a relatively good position to pave its way independently. The frequency and the quality of its research provides a good basis for the development of the digital transformation's main areas, as for example, AI field, although more effort and resources are needed. What makes the European Union strong in dealing with great powers is the democratic disposition of its member states, its supranational institutional order and autonomous legal order, the size and potential of the Single Market, the common currency area, and the common trade and competition policy which offers rather important potential.

The second hypothesis related to the fact that China's digital ambitions should not be viewed as purely economic or civilian exercises, rather than the combination of economic goals with broader normative and security aims of the government is also confirmed.

The main demonstration of this is the Chinese government's direct participation in digital processes and significant political support to its big tech companies. Invitation hubs and main tech-zones are part of states' national agenda, directly controlled by president Xi Jinping. For instance, the considerable potential of AI is very clear to China's policymakers. The development of this field is so important for China that it is one of the main national priorities of the state and is included in President's grand vision for China. The line between industry and state is blurred. Another important demonstration of this is project named "Made in China 2025", that can be considered as a government's strategic masterplan of becoming world's largest manufacturing powerhouse and increase dependence on Chinese technologies in global marketplace. On the other hand, the Digital Silk Road can be seen as Chinese government's desire to become a superpower in emerging technologies and connectivity and in such way increase its geopolitical influence in BRI's developing countries.

In terms of national security, a civil-military integration plan is a crucially important project, which reflects government's economic and political motives. The Chinese government seeks the army to combat effectiveness from technological innovation. More specifically, the latter promotes closer civil and military integration in terms of technology, science and defense. In some extent, the final goal is to gain more control over digital infrastructure, build technologically competitive and effective military forces that will be a guarantee of well-position on international defense system.

The third hypothesis is directly linked to the question of this Master Dissertation. Beside many existing structural differences among the EU and China, still there are some areas in terms of digital transformation for possible collaboration on the base of reciprocity.

It can be argued that digital connectivity is an area of both, cooperation and competition in relations between the European Union and China. It can be viewed as one of the most challenging issue for both parties. Although, the information presented in this Master Dissertation has demonstrated that there are many structural, ideological, political and conceptual differences among these two global actors, still, given the economic and digital interdependence of these actors there are some areas where it is possible to argue about cooperation between China and the EU, considering the dynamics of development of bilateral relations.

It should be noted that China and the EU have a solid ground for cooperation in some areas, as for example, Science & Technology. In addition to cooperation in scientific research papers and research projects, China and the EU could also actively develop the cooperation and construction of innovation centers. Sino-EU scientific research cooperation and mutual support can be considered in both, multilateral and bilateral context. This dimension is becoming particularly potential in the face of US-China competition. The process of reconstructing digital innovations, creating a business environment and common digital platforms based on accepted standards is a considerable interest of each global actor and are essentially important both on national and international level.

Even under the limited conditions both parties need to develop a digital diplomacy to make their digital transition process faster. It is important to promote security measures that are common interest for both sides and will affect equally on their digital agenda. What the EU and China need is to acknowledge their differences and adjust, modify their expectations; base their cooperation on clearly defined and commonly accepted general rules and principles. Bring more balance into their economic interaction. Both parties need to find the right implementable framework to rebalance this type of relationship. In order to regulate certain risks, related to this bilateral collaboration, the EU will need to invest in risk estimation and encourage principles of sustainability and reciprocity.

Taking into consideration the importance of European market for Chinese companies, for the EU the possible cooperation with China in terms of digital transformation can be seen as an opportunity to influence certain aspects of Chinese scientific research policy with its values, as they will have the obligation to adopt some regulations, to maintain the access to the EU's key market. Last but not least, the collaboration is also a mechanism that allows the EU to open its options in this field and not depend on a single strong actor. It is key for the EU to position itself in such a way that it can benefit from constructive relations with the different global actors on which it depends strategically on various issues and building bridges of collaboration despite the challenges in terms of divergent strategies. Such flexibility in digital framework may be worthy.



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## Appendix

In this section is attached an interview that represents an important primary source for the research. It should be noted, that it was produced online, recorded in digital audio, then transcribed in Georgian and translated into English. However, although adapted, it keeps the expressions typical of the oral interaction in which it was produced.

Document n. 1: Interview with Irakli Beridze, The Head of the Centre for Artificial Intelligence and Robotics at UNICRI, United Nations. Online. Spain, Madrid, June 3, 2021.

There is a lot of information about what advantages China has in terms of global competition in the field of artificial intelligence and digitalization, in general, but it is also very interesting to talk about the weaknesses and challenges that may hinder this international actor. What do you think are the main challenges for China?

When it comes to China, in my opinion, the main weaknesses are the same which many considers as its advantage. For example, the fact that cooperation between the government and the private sector is structurally centralized and largely state-controlled, can also be considered as a weakness. The second issue is the large amount of data, i.e. China has no problem obtaining big data, as the state can very easily instruct both the private sector and scientific institutions to work together on specific issues and exchange data, and none of them can refuse it. This advantage in turn, poses problems for China that the West, for example, does not have at all, especially the United States. We are talking about the lack of creativity, a lack of competition and the shortage of innovation. A kind of fear of innovations and superiors, or leaders, introduced into Chinese culture is reflected in the inability to implement considerable innovations, and this forms a moderate obstacle. It can be said, that there are many shortcomings in the context of innovations. For example, in artificial intelligence there are too many Chinese companies with large amounts of data, where quite key positions are held again by highly qualified personnel invited from the West.

Obviously, there are some kind of innovations in China as well, although breakthrough innovations have not been seen yet. This is also a demonstration of one of the decisive differences, given that competition in the US is highly encouraged and there are many motivating factors that contribute to the development of innovation. We do not see the same situation in China. While there are people even in the US itself, such as Eric Schmidt, for example, the former CEO of Google who believes that much is to be learned from the Chinese project and that their strategy is superior to the US strategy, and there have been some doubts about future developments. I am personally skeptical towards this view. I agree, that China has developed this strategy of digitalization, but its implementation will not be so easy.

This is a general overview and in specific cases, of course in China too, there will be too many attempts at innovative impulses and they will try their best to make the use of existing advantages. It should be noted, that the Chinese society is also developing day by day, their economic situation is improving, the level of investment is increasing, it is possible for more people to get a high level education and apparently, all this elements will be reflected in the growth of innovation in the digitalization process. Nevertheless, there is still a tendency in Chinese scientific circles that they want to pursue a career in the West, although there are few cases to the contrary.

In the case of China, it must be noted that they have introduced many of the technologies very quickly, even in terms of artificial intelligence and innovation. The issue is that the absence of barriers highly accelerates these processes. China, for example, started mobile payment services with the Alipay and Wechat programs too early, which was then a big novelty in the West. This happened at the expense of the fact that there were no regulations related to the issuance of personal data and the society too did not have any problem with it. Another example is the period around 2017-2018, when China began to actively use the face recognition system, but in terms of data protection and fundamental human rights the development of this process is much more difficult to imagine in Europe.

The key question is whether the rapid introduction of such technologies will lead China to innovation and creativity. The issue is what's after this?



In your view, despite the structural differences between China and the EU, is there any possibility of cooperation between these two geopolitical actors in the context of digital transformation?

Generally speaking, Americans have chosen an openly capitalist approach in this digitalization process, based on the rapid introduction of technology and high level competition. The Chinese side focuses on processing and sorting large amounts of data, minimizing barriers and maximizing state support. With this in mind, at an early stage Europe was faced with the problematic question of what would be its competitive advantage on the international arena. Given the potential of huge US companies such as Google, Apple, Facebook, and the advantages of China, the European academic community and the private sector have begun to debate what should be the main dominance for Europe.

The solution was for Europe to develop an independent Human Centered strategy based on fundamental human rights and values, with the aim of establishing the standards and rules that would make it possible to influence the rest of the world. The first step towards this goal was the GDPR (General Data Protection Regulation), which was important in creating a sort of global standard. Given that Europe has a great trade and market potential, this standard that it has developed cannot be ignored by the global world if the states want to establish and develop trade and commercial relations with the European Union.

The draft of artificial intelligence regulation adopted by the European Commission was another breakthrough as it openly states that artificial intelligence as such, should be regulated. Of course, this will take some time to implement and convert this draft into a hard law, but for companies, manufacturers, and implementers, this document has already become a branch mark. If any company wants to produce something in this framework, it must respect this draft regulation, which at some point will become a hard law.

Coming to China with this discussion, it can be said that they do not even consider not only a similar level of regulations, but even those close to it. To put it bluntly, they even believe that this regulation will be a kind of hindering factor for them. Given the very different trajectory, the extent to which scientific cooperation between China and the EU can take place is a central question. It is unlikely to talk about cooperation on the policy level, because these two actors have very different goals and views.

Still, for the Chinese, it may be interesting to work with Europe in the context that if any Chinese company wants to enter and develop in the European market, it will have to adapt to the regulations imposed by the EU, otherwise these companies may face the risk of losing a key market. On the other hand, such cooperation for Europe could be seen as a kind of opportunity for its worldview to influence China. We can not talk directly about the human rights, although the establishment of some standards on a scientific policy level can be considered, which will be encouraged by European structures. The EU is funding a number of priority projects under this framework.

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**Resumen:** La transformación digital es uno de los pilares más importantes en los procesos geopolíticos en curso. Los actores internacionales prestan cada vez más atención a su agenda digital. La rivalidad estratégica entre China y EE.UU. se refleja no sólo en la esfera socioeconómica y política, sino también en términos de digitalización, Inteligencia Artificial (IA) y big data, que en realidad darán forma al futuro de la agenda geopolítica. En este contexto, la UE debe encontrar el equilibrio adecuado y adoptar una posición para defender sus propios intereses. Aunque hay muchas diferencias conceptuales entre la UE y China, todavía se pueden encontrar algunas áreas de posible cooperación sobre la base de la reciprocidad en términos de transformación digital. Este trabajo se tratará de explicar dicho contexto geopolítico y llegar a conclusiones relacionadas.

**Abstract:** The digital transformation is one of the most important pillars in the ongoing geopolitical processes. International actors are paying more and more attention to their digital agenda. The strategic rivalry among China and the US is reflected not only in the socio-economic and political sphere, but also in terms of digitalization, Artificial Intelligence (AI) and big data, which actually will shape the future of the geopolitical agenda. In this context, the EU needs to find the right balance and take a position to defend its own interests. Although there are many conceptual differences between the EU and China, some areas of possible cooperation can still be found on the basis of reciprocity in terms of digital transformation. This thesis will attempt to explain such geopolitical context and come to related conclusions.

**Palabras clave:** Digitalización, Inteligencia Artificial, Tecnología, China, Estados Unidos, Unión Europea.

**Keywords:** Digitalization, Artificial Intelligence, Technology, China, United States, European Union.



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