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# Creating a Sustainable and Fair Competitive Environment through Digital Transformation (DX): Opportunities and Challenges for EU– Japan Cooperation

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#### 1. Introduction

In December 2019, European Commission President von der Leyen announced the EU's new growth strategy based on the "European Green Deal" and "digital transformations." This is a project to transform the European industrial structure into a sustainable circular economy in order to achieve "climate neutrality" (carbon neutrality) that eliminates greenhouse gas emissions in the EU by 2050. The core vehicles for achieving this goal are digital transformations in the acceleration of connectivity between artificial intelligence (AI) and infrastructure, digital transformation in areas such as service economy, data services, investment, and regulation. Two months after this new European Commission policy speech, the COVID-19 pandemic emerged in Europe. As of July 2021, a highly contagious delta strain has emerged and continues to spread throughout Japan, Europe, and the rest of the world, with no signs of an end in sight. The traditional social environment, with people, goods, and distance and location constraints, has been radically transformed by the COVID-19 pandemic. Teleworking and online processes including meetings, education, medical treatment, and e-commerce have become commonplace, accelerating change in both business activities and personal lives. In other words, the COVID-19 pandemic has forced a rapid Digital Transformation (DX) of the entire society.

A symposium in July 2021 titled "The Future of EU–Japan Cooperation: The European Green Deal and the Digital Economy" was jointly held by the Global Forum of Japan (GFJ) and the Centre for European Policy Studies (CEPS), which has played a leading role in policy making as an EU think tank. The speeches given by the CEPS president and others at the symposium served as a great inspiration in considering EU–Japan cooperation. Nevertheless, the two CEPS reports focused mainly on the "European Green Deal," and thus hardly touched on digital transformation. Therefore, from the perspective of supplementing this, this paper will clarify the possibilities and challenges of EU–Japan cooperation toward the construction of a sustainable and fair competitive environment, based on a comparative study of the background and progress of DX in the EU and Japan.

### 2. Background and Current Status of Digital Strategy in the EU

In September 2015, the European Commission announced the Digital Single Market (DSM) strategy, which aimed at deregulating the digital economy and eliminating unfair

competition in e-commerce. The specific goals are as follows: (1) improve access; (2) prepare the business environment; (3) maximize potential economic growth; (4) regulate cross-border transactions (geo-blocking regulation); and (5) ensure transparency and fairness in platform transactions. In addition, in April 2016, the European Commission announced the European Cloud Initiative, and in May 2018, the EU "General Data Protection Regulation" (GDPR) began to be applied.

In February 2020, the European Commission has announced "European Data Strategy: A DX Single Market" and a strategy for building a "European Data Space." It aims to establish the EU's "Digital Sovereignty" by building the following social environment: (1) technology that works for people; (2) a fair and competitive digital economy; and (3) a democratic, sustainable and open society. Behind these EU efforts is a dramatic expansion of the spheres of influence of U.S. digital and Chinese digital in the global information space. On the one hand, there is the U.S. dominance of Microsoft's Windows OS, Apple's iOS, and GAFAM (Google, Amazon, Facebook, Apple, and Microsoft) platforms. On the other hand, Chinese state-owned enterprises and private capital firms such as BATH (Baidu, Alibaba, Tencent, HUAWEI), backed by China's huge domestic demand, cheap labor, state subsidies, and investments under China's "One Belt, One Road" strategy, are expanding their influence through strong state capitalism. In terms of economy and trade as well as security, there is a battle for hegemony between the U.S. and China, and the conflict is intensifying. The EU aims to avoid being caught in a U.S.-China conflict, to reduce hegemonic dominance in the European market and excessive reliance on the companies of the hegemonic countries, as well as to secure the EU's autonomy in the digital sector. In the digital market, the reality is that U.S. companies have a large share (57%) of the cloud market in the EU, and Chinese digital companies (Alibaba, 5%) are expanding their cross-border service offerings in the region. In particular, the cloud market is heavily reliant on U.S. and Chinese platforms. The EU has been forced to respond from the perspective of ensuring European security by protecting Europe's confidential information and personal data from hacking and cyberterrorism.

In June 2020, the European Council agreed to work on an "EU Digital Strategy," recognizing the important role that digital reform can play in COVID-19 infection control and economic recovery. In July of the same year, the European Council successfully institutionalized the "The EU budget powering the recovery plan for Europe" as a source of funding to move from economic recovery to economic growth. European Council President Michel presented a new proposal for the EU's long-term budget and economic recovery package, the "The EU budget powering the recovery plan for Europe" (COM(2020) 442 final), which led to the final agreement on the creation of the EUR 750 billion European Recovery Instrument at the July European Council. It was agreed that the European Commission would issue bonds to raise funds from the financial markets, and that the debt would be shared by all member states.

As part of the EU's emergency response to the COVID-19 crisis, the European Council has also successfully institutionalized a seven-year medium-term budget plan (2021–2027) for the EU's economic recovery and growth strategy. Thus, a total of 2.3 trillion euros has been allocated for this purpose. The EU's Multiannual Financial Framework (MFF) and European Recovery Instrument could be the catalyst for a new post-corona growth strategy, the European Green Deal, to transform European industry into a circular economy and create an inclusive society where "no one is left behind," one of the goals in the United Nations' SDGs.

Dr. Fiott of the EU Institute for Security Studies and Prof. Chopin of the University of Lille welcomed the European Commission's regulation of business activities (competition, taxation, personal data, contents) such as those of GAFAM, and recommended that national sovereignty of member states should be pooled along with joint exercise at the EU level in order for the EU to compete globally on an equal footing with China. For the EU to ensure strategic autonomy in the international community, it is essential to realize a single digital market and capital market union, and to strengthen the EU's "technological sovereignty." To secure the EU's own data infrastructure and the EU's "digital sovereignty," it was decided to build the European Data Infrastructure "GAIA-X" sovereign cloud stack, mainly in Germany and France. In order to secure the EU's digital sovereignty and EU's own cloud data infrastructure, to use this as a basis to promote innovation, a "Digital Decade" until 2030 has been set up as the "European Future Strategy." Horizon Europe's research investments will be funded at over 95.6 billion euros over the seven years of the EU's 9th Framework Program (2021–2027). This will strengthen the infrastructure base for the EU's digital reforms for the post-corona era, including FinTech in the financial sector, mutual use of DX technologies, and standardization and evaluation criteria, which will contribute to the use and support of DX technologies convenient for small and medium-sized enterprises (SMEs) and individuals. Next, let's take a look at the history and initiatives of DX in Japan.

# 3. History and Current Status of Digital Reform in Japan: E-Japan (DX) Strategy and Response to the COVID-19 Crisis

Digital reform in Japan started in 2001 with the establishment of the Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society (IT Strategy Headquarters) as a plan called the "e-Japan Strategy." Based on this strategy, digital transformation was supposed to be completed by 2015, but it could not be realized. In May 2018, the Ministry of Economy, Trade and Industry (METI) launched a DX expert group to take on the DX initiative, and in July, a strategic headquarters led by the prime minister and a DX office were established to study the promotion of digital transformation. However, even after 20 years since the start of the digital strategy, the Japanese government has not succeeded in digitalizing its administrative systems.

The May 2020 COVID-19 crisis became a turning point for Japan to accelerate DX in the public and private sectors. The Liberal Democratic Party's Special Committee on the Promotion of a Digital Society recommended the establishment of a Digital Agency to promote DX. In July of the same year, the Cabinet Office announced the decision "Economic, Financial Management and Reform 2020." To address the outbreak of COVID-19 and the gradual resumption of economic activity, a policy for a "new normal" called the Digital New Deal was formulated, and the Digital Agency has been established in September 2021. In the process of implementing measures to support the response to the pandemic, it became apparent that the Japanese administrative sector was lagging behind in digitalization and shifting online. The newly established Digital Agency will be responsible for investment and innovation promotion measures to build a digital nation and promote DX in the private sector.

Prime Minister Cabinet Planning Trade and Industry (DX Office) Basic Policy 2020 Assisting DX Report 2018 Helping **Cabinet Secretariat Cabinet Office** DX Promotion Guidance 2019 Secretariat work Japan Economic **National Center of** IT Strategic Headquarters IP Strategic Recovery Headquarters Incident Readiness and Headquarters Strategy for Cybersecurity Secretariat work IP 2020 Secretariat work Cybersecurity Strategic Headquarters Strategy Office of Information and Cybersecurity 2020 Communication Technology

Figure 1: Administrative Structure and Comprehensive Plan for DX

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In Estonia, which is the most digitally advanced among EU member states, users can view their own data held by each government agency by entering their national ID number, and can check the access record to see when and who accessed their data. If a suspicious access record is found, it is possible to file a complaint. In Japan, concerns grow every time there is a leak of personal data or personal customer information from the public and a private platform. Therefore, to strengthen cybersecurity and improve trust in government information, citizens' personal information, and digital platforms, the establishment of a system similar to the one in Estonia has become an important issue. In Japan, during the COVID-19 crisis, the demand for digital contract services has increased in the private sector, and government agencies have also abolished or omitted the use of seals on their applications. The Government of Japan has amended the law to promote the issuance of digital signatures and digital certificates, and measures for digital transformation are being promoted in collaboration with the public and private sectors. Notably, the government and METI tend to promote DX policy with large companies in mind, whereas the EU tends to focus on the use of DX by SMEs, which account for more than 90% of European companies. In light of the consensus that the EU and Japan will focus on the utilization of DX for SMEs and individuals, the standardization of new technologies and their joint regulations will be common benefits by making them a global standard. It can be said that there are many fields in which Japan can cooperate with the EU regarding DX applications for SMEs and individuals.

### 4. Conclusion: Scenarios for Realizing DX and Challenges for EU-Japan Cooperation

The year 2020 marked a turning point for DX and digital transformation around the world due to the COVID-19 crisis. From the above discussion, several areas of possible EU–Japan cooperation and their challenges have emerged, with DX covering AI, cloud computing, IoT, and big data. The legislative policies related to these areas, including the interpretation of laws and regulations, need to be reformed to meet the needs of the digital age. Furthermore, as in the EU, the Japanese government, in cooperation with the Bank of Japan, has also begun joint research with foreign central banks on the introduction of digital currencies. In a digital

capitalist society, digital information is a source of value, and digital technology can be used to profit from difference and scarcity. The EU's digital strategy is based on Europe's historical values and traditions, and places the normative values of "rule of law and ethical capitalism" at the core of the promotion of DX. It aims to establish "EU digital sovereignty" against the US and Chinese digital powers. The EU's strategy is to secure the competitive advantage of European industry by comprehensively upholding and globally implementing a variety of international norms, including the UN SDGs, the Paris Agreement, ESG (Environmental, Social and Governance) investment, and GDPR. This is a strategy in which the EU will always be on the side of setting the rules of the global trade and investment game, making the most of its institutional design and planning capabilities, in which Europe excels.

In December 2020, Japan, as well as the EU, announced a new growth strategy based "greening" and "digital transformation" to achieve "climate neutral" "decarbonization" by 2050. Japan's digital innovation strategy, advocated by the Cabinet Office, called for "Society 5.0" and includes (1) data free flow with trust (DFFT), (2) global rule formation to be applied to a transparent and reliable digital platform for business transactions, and (3) an internet structure/web concept to optimize reliable data processing. It also advocates prevention of the abuse of dominant/superior positions by certain platform companies in relation to personal data protection and competition law. Japan's digital strategy has much in common with the EU's "European Data Strategy: DX Single Market" concept. The development of a sustainable and fair competitive environment in such a digital capitalist society can be achieved through cooperation between Japan and the EU. This is in the common interest of both sides. Cooperation between Japan and Europe in the digital field can be achieved by (1) establishing indicators for a visible and objective analysis scheme, (2) formulating "Guidelines for DX Promotion Systems," (3) working to reduce costs and risks in the construction of AI/IT systems to realize DX, (4) establishing new relationships between user companies and business partners, (5) developing and securing DX-trained human resources, and (6) building a sustainable, circular economy and society. The challenge will be to cooperate with each other in these areas. By working together to build a sustainable and fair competitive environment, while continuing to assert in the international community the right arguments for addressing global issues such as climate change, human rights, and labor issues, Europe and Japan will be able to contribute to common interests through the implementation of transnational digital norms and rules.

(This is an English translation of the article written by FUKUDA Koji, Professor, Waseda University, which originally appeared on the e-forum "Giron-Hyakushutsu (Hundred Views in Full Perspective)" of GFJ on July 31, 2021.)