Recommendations
of the
EU-Japan Business Round Table
to the Leaders of the European Union and Japan

Tokyo, 20 April 2018

Working Party 3
Digital Innovation and Mobility

Working Party Leaders:

Mr. Frédéric SANCHEZ
Chairman of the Executive Board
Fives Group

Mr. Nobuhiko SASAKI
Corporate Executive
Vice Chairman
Fujitsu Limited

List of Abbreviations

Abbreviation	Meaning
AI	Artificial Intelligence
AIOTI	Alliance for IoT Innovation
API	Application Programming Interface
BASA	Bilateral Aviation Safety Agreement
BRT	EU-Japan Business Round Table
CARATS	Collaborative Action for Renovation of Air Transport Systems
DEI	Digitising Europe Industry
DSM	Digital Single Market
EASA	European Aviation Safety Agency
ENISA	European Union Agency for Network and Information Security
EPA	Economic Partnership Agreement
ePR	ePrivacy Regulations
EU	European Union
FTA	Free Trade Agreement
HPC	High Performance Computing
IoT	Internet of Things
ITA	Information Technology Agreement
ITAC	the IoT Acceleration Consortium
FLM	Forced Localization Measures
GDPR	General Data Protection Rules
GPS	Global Positioning System
JCAB	Japan Civil Aviation Bureau
METI	Ministry of Economy, Trade and Industry
MEXT	Ministry of Education, Culture, Sports, Science and Technology
MOU	Memorandum of Understanding
M2M	Machine to Machine
NIS	Network Information Security
SESAR	Single European Sky ATM Research
SME	Small and Medium-sized Enterprise
R&D	Research and Development
WP	Working Party

Introduction

Digital Sector

Digital technologies represented by IoT, Big Data, AI, Blockchain and Robotics are changing business and society. These digital technologies are expected to contribute to the accomplishment of the SDGs. The EU and Japan have positioned the digital agenda as a pillar of their respective growth strategies while reviewing and implementing appropriate regulations to foster digitalization. New initiatives, such Industry 4.0 in Europe and Society 5.0 in Japan, are re-thinking the way modern societies will manufacture and create new economic value. This will strongly impact civil societies and social policies with significant impact on the Jobs Market. This needs to be supported by efficient political initiatives from Governments.

Significant progress has been made at both sides, but to embrace the power of digital technology, both authorities are required to work more closely at several international arenas. The BRT thinks that all digital related policies should take into consideration globalization and inclusive growth. Broad participation on policy discussion will facilitate social acceptance of digital transformation.

In addition to sharing a common recognition of the digital technologies on society, on jobs and the economy, the EU and Japan should specify the areas for cooperation and endeavour to create concrete projects.

The EU and Japan should lead the discussion of the development of the global digital society. This should include global digital rule making by taking coordinated actions based on common principles to fully exploit the potential of social transformation by digital technology at several international fora. The EU and Japan share the same principle that the multi-stakeholder approach is highly effective in realizing the global digital economy. Following the roadmap prepared during the last G7 meeting in Taormina (Italy)“ people centered action plan on innovation, skills and labour”, the EU and Japan should adopt concrete actions and investments in particular on the creation of adequate skills to fill the gap with the actual demand from labour market and to better involve developing countries.

The BRT also welcomes the new initiative of the European Commission, “Digitising European Industry” (DEI), and Japan’s Connected Industries. The European Commission and the Government of Japan are encouraged to foster key collaborations.

Albeit still in its infancies, Blockchain and derived technologies have the potential to create major disruptions. It is of utmost importance that regulators are closely following the developments and define rules already now on the major issues by taking into account the principle of technology neutrality and finding the right balance between regulation and self-regulation of the industry.

Role of Innovation

The EU and Japan face similar societal challenges such as aging populations and climate change. To address these complex global issues, governments should harness the innovation capacity of the private sector by fostering a better R&D

business environment. Given the critical roles of digital technology, such as IoT, in supporting other sectors, the BRT urges both sides' authorities to mobilize all necessary tools for the development and deployment of innovative solutions and products.

Funding programmes such as Horizon 2020 and its Japanese counterpart Programmes for International Cooperation on Research and Innovation should increase the efforts towards open collaboration between the EU and Japan. Funding programmes to finance innovation and collaboration is crucial. Supporting the participation of both SMEs and (big) Industry is essential for the success in adopting the results of R&D Public Programmes and convert them into economic growth and jobs creation. Developing new mechanisms to help to facilitate new R&D outputs to the market is a further area of focus.

Facilitating bilateral R&D collaboration and pilot projects with the participation of academia, public and private sectors will contribute to the creation of innovative products and services that can be deployed in both regions and also in the rest of the world. The BRT encourages the European Commission and the Japanese Government to keep on investing in common Calls for Proposals such as the EU-Japan Horizon 2020 Calls that should be present in the new Work Program 2018-2020 and in the next Framework Programme.

The BRT also suggests fostering EU-Japan Programmes for a mutual exchange of Researchers, PhDs and students in order to allow for better collaboration in particular in certain areas of common interest such as Healthcare, Robotics, IoT and HPC.

Regulatory cooperation between the EU and Japan will also facilitate the deployment of new services and products.

Aeronautics

Europe's aeronautics industry is a major supplier to the world market, and Japan with its many advanced technologies may soon follow in its footsteps. Both, however, are challenged by aggressive new entrants. In this context, joint technology and project development is necessary for both sides to maintain their technological leadership and competitiveness. EU-Japan industrial cooperation already exists in helicopters and aeroengines, but there is much more potential. More government-led cooperation and continued support from both sides' Authorities is needed to help the European and Japanese aircraft industries bring to fruition the development of their relationship while meeting the EU's environmental, social, and safety requirements.

Space

The EU and the Japanese space industries are major suppliers of space products and services. The global commercially accessible space market, however, is small with limited growth prospects. As government budgets remain low and competition increases, mutually open markets and cooperation are necessary for the EU and Japan to achieve their goals in space and for their industries to realize their full potential in the global market. We are certainly satisfied with the creation and first two meetings of the EU-Japan Space Policy Dialogue, which were fruitful and enabled the two bills enacted to be coherent with the EU legal framework towards space. We

also appreciate that the outcome of discussions held in Japan regarding the Approval of Satellite Launch Service Providers was finally fair.

Recommendations from both European and Japanese industries

WP-3 / # 01* / EJ to EJ **Cooperation for Global Digital Trade Rule Making**

With rising protectionist sentiment and a growing undercurrent of distrust surrounding trade, the EU and Japan are required to demonstrate that improved trade relations can bring great value to the mutual benefit of economy and society. The EU and Japan should commit to free, open and fair trade in cyberspace and ensure fair market access.

The BRT has serious concerns that some countries are implementing Forced Localization Measures (FLMs). Maintaining the business environment to realize adequate “cross-border data flows” is imperative for both large and small businesses of all sectors and for citizens who consume services. The BRT thinks that the principles of free flow of data and the restriction of a mandatory requirement of data localization will be one of the foundations of the digital economy.

Under these circumstances, the BRT highly welcomes the agreement of EU-Japan EPA which includes provision of restriction of source code disclosure and cooperation on regulatory issues of e-commerce.

The BRT expects that text on free flow of data will be agreed at next review expected within three years of the entry into force of the EPA.

The BRT requests both sides’ Authorities to lead global rule making with coordinated approach at several international fora such G7, G20, OECD, and WTO. The EU and Japan should promote initiative for future rule-making on e-commerce building upon the joint statement issued at MC11. The BRT also requests to incorporate provisions to restrict digital protectionism such as FLMs, ensuring free access to internet, improvement of market access, prohibiting arbitrary access by governments to information held by private sector including personal data and trade secrets into FTA/EPA negotiations respective parties are engaged in and jointly approach the abolishment of such regulations.

The BRT welcomes the efforts to increase membership countries for ITA/ITA Expansion. The BRT expects both governments to coordinate together against third countries violation of WTO binding commitments based on ITA/ITA Expansion.

< Recent Progress >

On 7 December 2017, both authorities agreed on the EU-Japan EPA, which includes e-commerce chapter.

At the Eleventh WTO Ministerial Conference (MC11) held in December 2017 in Buenos Aires, Argentina, Japan played chair of e-commerce meeting together with Australia and Singapore. Total 71 WTO members including the EU agreed to work together toward future negotiations on electronic commerce.

At the G7 Summit in Taormina, Italy on 27 May 2017, important progress has been made to avoid protectionist measures. During the high level meeting, a generic but important declaration was decided to prevent negative consequences on digital trade.

< Background >

Thanks to the digital economy, today's business environment is evolving at exceptional speed. Information, goods, and services are more global than ever before. In the trade environment, digital trade - intended as for example cross-border data flows and e-commerce - is growing exponentially around the world. It is important to emphasize though that digital trade does not only positively impact the digital technology sector, but also has a positive spin-off effect on the entire value chain and across all industries and players, including consumers and employees. Digital trade has a positive effect on the quality of goods and services and productivity levels thanks to new technologies, processes, business models, and services. Thus digital trade has great potential to bring new growth and prosperity to Europe and Japan. However, the true potential of digital trade to drive innovation, job creation, and economic growth has yet to be fully realized. Indeed, barriers persist, and protectionist trends and policies are on the rise.

Several countries are trying to implement digital protectionist policies. To spread the fruit of digital technology all over the world, modernized and harmonized rules are indispensable so that business can offer innovative solutions without unnecessary burdens to meet specific local requirements.

WP-3 / # 02* / EJ to EJ **<u>Privacy Protection and Innovation towards Digital Economy</u>**

The BRT believes that establishment of personal data transfer mechanism between the EU and Japan will enhance the EU-Japan economic relation complementing the EU-Japan EPA.

The BRT highly welcomes constructive dialogues conducted by both Authorities and expects both Authorities to reach an agreement as soon as possible this year.

The BRT requests the EU and Japan to align in the implementation of regulations and to foster Regulatory Cooperation in order to create a trusted, harmonized and future-proof set of data protection environments both for the EU and Japan as we believe that modern and flexible regulation has the potential to act as a catalyst for growth, jobs and innovation both in the EU and Japan.

<u>GDPR implementation</u>

The BRT welcomes the work and the approach of WP29 allowing all stakeholders to contribute through public consultations in preparing the Guidelines for the implementation of the GDPR.

It is crucial that the GDPR is implemented in a harmonised manner across EU Member States. This is important in order to fully take advantage of the cross border

business opportunities. In this sense the BRT encourages the European Commission and WP29 working together with National Data Protection Authorities (DPAs) during these last months before GDPR will get into force in May 2018 in order to minimize different interpretations of some Article of GDPR and to complement WP29 Guidelines with other actions in order to coordinate the work of DPAs and to properly communicate with Citizens, Stakeholders and Companies in order to assure as much harmonisation as possible and avoid to create different market conditions in different Member States.

Rulemaking for the facilitation of cross border transfer of personal data

The BRT welcomes the EU-Japan joint Statement released on 14 December 2017 confirming the strong political commitment in finding the best solution to allow Free Flow of personal Data between the EU and Japan.

The BRT also expects that it will take into account during the negotiations between the UK and the EU that there will be not hinder to the smooth transfer of data between the EU and the UK.

Furthermore, both sides' Authorities should strengthen their dialogue to realize consistent personal data protection regimes around the world, to assure interoperability and to fight against digital protectionism through enhanced cooperation with third countries and international organizations.

ePrivacy Regulation

Regarding the potential ePrivacy regulation (ePR), it is essential that there is no contradiction with and no duplication of the GDPR and that no undue restrictions are placed on businesses.

While to the respect of privacy remains at the core of the ePR, this right must be effectively balanced with the other rights within the Charter of Fundamental Rights as underlined by the Court of Justice of the EU and in line with international human rights law.

Broadly including M2M communications into the scope of the ePR could mean that various products and services that contain built-in M2M communication features like automated supply chains, remote control or operation of machines might be covered by the legislation. This does not seem to be consistent with the purpose and objective of the ePR. We see the risk that the inclusion of M2M communications and applying provisions as currently worded would lead to unworkable situations in practice and render standard processes and developments of Industry 4.0 impossible. We suggest a clarification that products and services containing an M2M platform do not fall within the scope of the ePR.

M2M communications are in scope in the ePR proposal. In principle, only the transmission of data should be captured by the ePR, but the wording in the draft is confusing. A possible broad interpretation of the provisions related to M2M

communications could include not just the transmission of data but also the application/services layer.

Ancillary Services: the Parliament report has already begun to move in the right direction by removing ancillary services, and the BRT supports this. The scope should be limited to core communication services to avoid misalignment with the European Electronic Communications Code.

Legal persons: the ePR proposal applies to both natural and legal entities (contrary to the GDPR). This is problematic for several reasons, not the least of which is that M2M communications happen with limited or no human intervention and have no personal data. This begs the question of what confidentiality is intended to protect in this case. It is likewise difficult to understand how end-users who are legal persons can consent to the provision of M2M services.

Terminal Equipment: The ePR prohibits collection and storing of information on terminal equipment unless certain conditions are met. This could be problematic because processing can be done for many legitimate purposes and device information can be needed, e.g. for diagnostics. Proposed text establishes constraints on information emitted by the terminal equipment and the definition of terminal equipment is vague and could implicate a broad unintended scope.

The BRT wants to highlight that not all terminal equipment data is personal nor sensitive and would urge the European Council to clarify the definition of terminal equipment in its ePR report in order to avoid broad interpretation.

< Recent Progress >

There has been good progress on this recommendation.

GDPR implementation

The General Data Protection Regulation will be effective on 25 May 2018. Several guidelines for implementation were released by the Article 29 Working Party.

On 24 January 2018, the European Commission issued a communication for direct application of the GDPR.

On 14 December 2017, Commissioner Kumazawa, the Personal Information Protection Commission of Japan and Commissioner Jourová, the European Commission held a meeting in regard to transfer of personal data between Japan and the EU, and issued joint statement

At Japan-EU Leaders Meeting on 26 May 2017 in Taormina, Italy, both leaders confirmed that free flow of data is important for EU-Japan economy relations and agree to continue discussion for reciprocal smooth data transfer mechanism while protecting appropriate personal data protection.

ePrivacy Regulation

In January 2017, the European Commission (EC) proposed a new Regulation on Privacy and Electronic Communications (ePR) to replace the existing ePrivacy Directive (Directive 2002/58/EC). The proposed text follows a reforming effort from the EU on its privacy and data protection rules in light of the challenges brought by the digital economy. The draft ePR is currently working its way through the EU legislative process but the time of its final adoption is still uncertain.

The European Parliament had approved its position in October 2017

The new Text ended up to the European Council as foreseen by the usual legislative process.

< Background >
The original personal data protection laws were adopted before the technical advancement of internet and cloud computing. Since then, citizens have become more concerned about privacy protection, and the differences in regulations by countries in various jurisdictions have caused an increase in compliance costs. Those differences have become obstacles to efficient global operation and innovation utilising data. Reviewing the regulations is thus needed.

WP-3 / # 03* / EJ to EJ **<u>Social Deployment of AI Technology</u>**

The BRT believes that a frank and sober discussion is needed between citizens, technology companies, civil society representatives, and governments about how to manage risks from disruption stemming from AI technology, while realizing their potential for economic growth and digital transformation.

The BRT requests both authorities to invite stakeholders in industry, civil society, and government to engage in an open, evidence-based discussion about the opportunities and challenges of AI-powered future. Both government and industries need to innovate, to support a positive, sustainable and beneficial for all, digital transformation, and to work together to adapt to technological disruptions, which by their nature are difficult to predict beforehand. We therefore oppose policies that pre-emptively limit or ban AI technologies based on speculative harms.
The BRT supports any initiative aiming at better understanding and communicating the potential of AI based solutions and is open to any discussion with political Authorities in order to ensure an effective and positive implementation of this technology in our societies.

The BRT welcomes the upcoming Communication of the European Commission on AI and expects it should suggest initial strategic priorities to streamline investments and efforts at EU level. These priorities should be supported by a clear market analysis and discussed with Industry in order to keep them continuously updated. This should enable a better focus on key investments and identify the right sectors-applications. A public private collaboration should be promoted at EU level with a strong international cooperation with key Countries such as Japan in order to establish a fruitful dialogue and align on strategic values, political and investments' priorities and standards.

< Recent Progress >
This is new recommendation.

<Background>
In coming years, innovation in AI will revolutionize business, drive global economic growth, and empower people around the world. These technologies have great potential to augment human capability and productivity.

The G7 declaration in Torino, 2017 pointed out four main topics:
1 - Understanding that the economic, ethical, cultural, regulatory and legal issues are linked to AI and thoroughly researched and understood by policy-makers, industry and the civil society;
2 - Noting the multi-stakeholder discussions about, inter alia, economic growth, job creation, productivity, innovation, accountability, transparency, privacy, cybersecurity, safety;
3.- Exploring multistakeholder approaches to policy and regulatory issues that include technical and societal considerations posed by A.I.;
4 - Having a better understanding of how the potential of A.I. can be fully and equitably realized across society and how the current and future labour force will obtain the necessary skills to work with AI based technologies.

MIC of Japan developed Draft AI R&D GUIDELINES for International Discussions in July 2017.

The EU-Japan cooperation would be extremely important not only for investments and priorities but also in terms of regulatory cooperation. In the EU the application of some products' Regulation to AI must be clarified by the European Commission and should be discussed with stakeholders.

WP-4 / # 04 / EJ to EJ **Cybersecurity for Social Resilience**

Security is necessary as a precondition for creating value in cyberspace. Prosperous digital society is enabled where the trust exists. At Data utilization society achieved by initiatives such as Digitizing European Industries, Society 5.0 and Connected Industries, convenience will be improved. But without taking appropriate measures, it will increase vulnerability therefore it is required that the EU and Japan corporately develop new security response mechanism are required.

The BRT welcomes that the EU and Japan share their views on the importance of cybersecurity measures and take action for improved resilience.

The BRT requests that the EU and Japan should lead rule making on cybersecurity towards data utilization society.

To reinforce cybersecurity capabilities, both authorities are required to enhance skill development of cybersecurity human resources and technologies to cope with the speed and complexities of cyberattacks.

International cooperation is effective in coping with high-level attacks. The BRT requests to actively conduct educational activities such as public-private joint seminars to raise awareness of society and businesses. Information sharing scheme of security incidents should be created between the national contact points designated in each Member States based on the NIS directive on the one hand and Japan on the other.

Cloud computing services are under the scope of the NIS Directive. Detailed provisions will be specified by EU Member States. NIS Directive is a vital Directive to mitigate risk of Cyber Attacks. The European Commission should work to ensure harmonised implementation in the Member States.

The BRT welcomes the new Package consisting of Proposal for a Regulation on ENISA, the "EU Cybersecurity Agency", and on Information and Communication Technology cybersecurity certification ("Cybersecurity Act") proposed by the European Commission.

The BRT understands the efforts of the European Commission in order to tackle the challenge of the current landscape in the EU characterized by fragmentation and its proposals for a “CyberSecurity Act”, but urges the European Commission to better clarify what will actually fall under the voluntary cybersecurity certification framework to enable tailored EU cybersecurity certification schemes for ICT products and services. The BRT would better support a Risk based approach and a stronger involvement of business and stakeholders in order to avoid that such certifications could be used as an additional tool for protectionist national measures.

< Recent Progress>

There has been good progress on this recommendation.

The NIS Directive entered into force in August 2016.

The European Commission proposed Cybersecurity Package in September.2017. The proposed regulation on ENISA foresees three main measures:

- *Building EU resilience to cyber-attacks (reformed ENISA including a permanent status, adequate resources, EU cybersecurity certification framework to increase trust in digital products and services in a society that is ever more digitalised)*
- *Creating effective EU cyber deterrence (identifying malicious actions, stepping up law enforcement responses)*
- *Strengthening international cooperation on cybersecurity (promoting global cyber stability contributing to Europe’s strategic autonomy in cyberspace, advancing the EU cyber dialogue)*

The GoJ revised its Cybersecurity Basic Act in April 2016.

At G7 Summit in Taormina, Italy, G7 Leaders agreed to work together with other Partners to tackle cyberattacks and mitigate their impact on our critical infrastructures and the well-being of our societies.

< Background >

With the diffusion of IoT, the fusion of real space and cyberspace is accelerating. Risks surrounding cyberspace are increasing.

Critical infrastructures sustain citizen's life and economic activities. The impediments of their operations because of cyber-attacks, etc., are serious threats to society. It means that defending critical infrastructures from cyber threats is indispensable for maintaining the business operations and a stable civil society.

As the entities conducting cyber-attacks act globally, and their attacks become more and more advanced, addressing these serious issues requires sustained and close international cooperation between the public and private sectors.

WP-3 / # 05* / EJ to EJ **<u>Cooperation Towards Digital Economy</u>**

The framework for cooperation in the Digitising European Industry (DEI) should be expanded upon to allow for an exchange of ideas, best displayed in the Digital Innovation Hubs. Bottom up innovation is crucial here as it will allow the various stakeholders to play to their strengths. Considering the importance roles of SME in global value chain, both authorities are requested to foster digitalization of SME and participation to digital economy.

The central goal of DEI is to ensure new technologies are integrated and expanded throughout the European economy. An essential condition for success rests in collaboration between various actors.

Taking note of the European Commission's 2017 Digital Transformation Scoreboard, we must ensure cybersecurity is central in our efforts regarding the DEI initiative. We must create a safe environment for both businesses and European citizens.
The BRT supports the priority actions identified by DEI: ICT Standards, eGovernment action plan and the Cloud Initiative which will hopefully make it easier to do business in Europe and spur entrepreneurship. The BRT shares the focus on Public Private Partnerships and Digital innovation Hubs as drivers for new investment in innovation and digital solutions.

The European Commission and the Government of Japan are encouraged to foster key collaborative projects under DEI and Connected Industries.

Finally, any policies related to the DEI and Connected Industries initiative should not place undue restrictions on innovation and its bottom up nature.

< Recent Progress >

In April 2016 the Digitising Europe Industry (DEI) initiative sought to offer concrete steps towards completing the DSM. Chief among the various initiatives stand the European Cloud Initiative, Industry 4.0, and the Digital Innovation Hubs.

The European Commission released its mid-term review of its Digital Single Market strategy on 10 May 2017 and identified to develop the European Data Economy to its full potential as one of major challenges.

In March 2017, METI of Japan introduced Connected Industries as a new vision for the future of Japanese Industries.

In October 2017, METI identified five strategic fields of 1) Automated Driving and Mobility Service, 2) Manufacturing and Robotics, 3) Plant/Infrastructure Safety Management, 4) Smart Life and 5)Biotechnologies and Materials for Connected Industries.

At the joint statement released on 20 March 2017, both authorities confirmed the importance of data and committed to a continuous exchange of views.

On 20 March 2017, the IoT Acceleration Consortium (ITAC) and the Alliance for IoT Innovation (AIOTI) of the EU signed a Memorandum of Understanding (MOU) for IoT Cooperation. At the joint statement released on 20 March 2017 by the both authorities welcomed this MOU.

WP-3 / # 06* / EJ to EJ **Skill Development for Digital Economy**

The BRT welcomes initiatives such as the Grand Coalition for Digital Jobs of the European Commission a multi stakeholders platform that brings together Member States, companies, social partners, non-profit organisations and education providers, who take action to tackle the lack of digital skills in Europe.

In this sense the BRT encourages the European Commission and the Japanese Government to take common actions to guarantee innovative ways to create new skills for new jobs and prepare the young generation to meet the new challenges related to the Digital evolution. New technologies such Robotics, and Artificial Intelligence should be perceived as new opportunities to create better jobs and economic growth. To keep all generations close to the new jobs market conditions it is crucial that all actors (Universities, Digital Clusters, Governments, Public Authorities, Unions, Industry and SMEs Associations) work together to find solutions to guarantee a harmonised match between offer and demand for new jobs and avoid resistance to change and innovation. Joint initiatives and cross border collaborations should be reinforced in order to find resources and new ways to create the right competences for new jobs. Gender equality should be guaranteed as equal opportunities for everybody, ensuring there are no discriminations. This is also important to in terms of SDGs.

< Recent Progress >

On 27-28 March 2018, G7 Employment and Innovation Ministers Meeting held in Montréal, Canada and discussed the theme of Preparing for jobs of the future.

< Background >

Digital technologies represented by IoT, Big Data, AI and Robotics are changing business and society. It is expected some of the current jobs will be replaced by AI and Robotics. Both Authorities have to address concerns of these disruptive changes represent for the working environment. Without taking certain actions, disparities may spread among our societies.

WP-3 / # 07 / EJ to EJ **Updating Connectivies for Digital Society (5G)**

The BRT requests that the EU and Japan should reinforce initiatives regarding sharing of progress towards 5G commercial service, e.g. through sharing of trials plans and results.

- The EU and Japan should reinforce cooperation regarding these initiatives and promote events in this domain.

< Background >
Telecom operators are working hard to prepare the deployment of 5G networks with standardized equipment to achieve an enhanced user experience, and enhanced network performance and operation, especially to ensure it is energy efficient. This will enable new services (new IoT services, services for verticals, ultra-low-cost networks) and ensure forward compatibility for future 5G releases. Availability of pervasive high speed network will spur social deployment of innovative services.

WP-3 / # 08 / EJ to EJ **Possibility of Blockchain Technology**

Innovations brought forth by blockchain are beneficial to individuals and to the society. It shall be therefore called on the governments to enable businesses and consumers to be a part of the blockchain landscape. Currently, the biggest issue is regulatory uncertainty regarding blockchain business models. Blockchain has a unique ability to operate globally and consequently strong inter-country cooperation is of utmost importance.

< Recent Progress >
This is a new recommendation.

< Background >
Blockchain has the potential to disrupt many markets as its properties enable the following concepts:

- *User Participation: Blockchain technology is unique in terms of changing the way stakeholders interact. Consumers can be offered a completely new role within the system. Consumers used to be passive recipients of services, and now they can become active contributors. This presents an opportunity for completely new business models.*
- *Immutability: Whatever is coded in a blockchain, it stays there for as long as the blockchain is alive, which means as long as there is the last person using or supporting it. The technology by design prevents everyone to change what has been entered into it. This feature can be valuable and can prevent many disputes and irrational behaviour when it comes to establishing proof of facts. This is a*

small, but long reaching step into a direction of people not questioning the authenticity of the data, leading to smart contracts, automatically enforceable.

- *Principle of technology neutrality: Technology neutrality means that the same regulatory principles should apply regardless of the technology used. Technology neutrality is one of the key principles of the European regulatory framework for electronic communications and was firstly introduced in 2002. The concept also appears in the GDPR and has been mentioned several times by the EU Commission when discussing regulation of blockchain related businesses. However, if we want to fully utilize advantages of the blockchain, some changes also need to be made blockchain specific, where suitable.*

Blockchain is a rather novel phenomenon. It is not yet clear into which directions they will develop and shape our society.

WP-3 / # 09 / EJ to EJ **Fundamental Reform of the Private Copying Levy System (Compensation System for Private Copying)**

The EU and Japan should cooperate to thoroughly reform the private copying levy system taking into account the evolution of technology and distribution channels for lawful digital contents. Expansion of the current levy system to new devices or cloud services should be avoided prior to the fundamental reform of the system.

Any review for reform should consider, in a comprehensive manner, alternative methods – including new content distribution practices – available to secure compensation for rights' holders and creators from private copying as well as the development of licensed cloud-based content streaming models. Increasing the availability of lawful digital content will require a reform of the existing copyright regime in the EU as well as in Japan. The aim of the reform should be to promote open and competitive markets in licensed digital content, with the aim to increase availability of more legitimate digital content, at prices which appeal to consumers and hereby promote innovation and growth of digital creative market. The goal should be to enable the establishment of a system which is transparent and fair to consumers, rights holders, and service and equipment providers.

< Background >

Current compensation is based on private copying levies and sometimes dates back to the analogue era. Private copying levy regulations do not address piracy. New emerging and expanding business models may be hindered by the current levy system. In addition the rules vary greatly across EU and this is in contradiction with the Internal Market principles of free movement of goods and services.

Innovation in General

WP-3 / # 10 * / EJ to EJ **Seamless Approach Towards Digital Society**

Innovative solutions and products can contribute to the realization of a prosperous digital society only after social implementation is completed. Therefore seamless and comprehensive approaches from innovation creation to social deployment are required. Regulatory cooperation between the EU and Japan will facilitate digitalization of society by deployment of new services and products in both regions.

The BRT requests that the EU to maintain strong EU R&D programmes such as Horizon 2020 and its successor, Framework Programme 9 (FP9), that are open to the international community, and to ensure these programmes support international standardisation, notably standardisation in advanced manufacturing, the Internet of Things and cybersecurity.

The EU and Japan should reinforce initiatives regarding open innovation between large companies, universities and startups.
- The EU, its members, and Japan should share information regarding the main initiatives in this domain with a focus on initiatives respectively sponsored.

- The EU, its members, and Japan should reinforce cooperation.
The BRT hopes that initiatives under EU's Horizon 2020/Framework Programme 9 (FP9) and Japan's 5th Science and Technology Basic Plan will lead to further EU-Japan strategic R&D cooperation.

< Recent Progress >

In May 2015, The EU and Japan signed a joint declaration concerning R&D and cooperation for standardization called "A strategic cooperation on the future generation of communication network (5G)".

On 20 March 2017, the IoT Acceleration Consortium (ITAC) and the Alliance for IoT Innovation (AIOTI) of the EU signed a Memorandum of Understanding (MOU) for IoT Cooperation. At the joint statement released on 20 March 2017 by the both authorities welcomed this MOU.

Japan's Cabinet Office has adopted its 5th Science and Technology Basic Plan in late January 2016. It outlines Japan's science and technology approach for the next 5 years.

< Background >

The EU and Japan share common societal challenges such as an aging population, climate change, resources constraints, etc. Science, Technology and Innovation are engines for growth. Enhancing cooperation between the EU and Japan will increase possibilities to create new products and services addressing complex issues.

Countries can more effectively use their human resources and financial funds if their R&D programmes are coordinated and if mutual access to R&D programmes is easier for participants from both regions.

Start-ups, for their part, are at the leading edge of new market developments. Their agility allows them to develop innovative services on short notice. Developers, whether they work for major companies, IT service companies, digital agencies or start-ups, are keen to optimize their development cycles using APIs so they can generate usage value for their applications and services. The open innovation approach therefore makes it possible to rapidly develop novel solutions, which will draw on the best elements of the network and offer clients innovations that are simpler and more intuitive, which focus on usage and respond to their needs for experience and information in real time. It is a lever of change and an accelerator of innovation for the benefit of customers. Innovative solutions developed by start-ups anticipate changes in the digital world, especially in four areas that will turn business and personal life upside down: the Cloud and connected objects, augmented reality, big data and the ability to analyse and edit data rapidly. Cooperative innovation should also form part of a win-win relationship. Open innovation and collaboration with start-ups will be beneficial for both start-ups and large companies.

Aeronautics

WP-3/ # 11 / EJ to EJ Government-Led Industrial Cooperation in Aeronautics

The Authorities of Japan and the EU should establish a permanent dialogue aiming to significantly upgrade the scale of EU-Japan industrial cooperation in aeronautics based upon mutual trust, equality and mutual benefits, and stimulated by government funding. This should include a broad cooperation on environmental issues.

<Recent Progress>

Some progress has been made on this recommendation.

<Background>

Europe's aeronautics industry has long been a major supplier to the world market. Japan also has many advanced technologies. Both are challenged by new entrants. In this context, joint technology and project development are necessary for both sides' companies to maintain technological leadership and competitiveness, and for governments faced with severe budgetary constraints. Some Europe-Japan industrial cooperation exists in helicopters and aero engines but the potential is much greater.

EU-Japan industrial cooperation in civil airliners has stagnated since the early 2000s, when 15 Japanese suppliers joined the A380 programme. The situation is better for Japanese participation in engine programmes and as suppliers of carbon fibre materials. The aerospace industries of other countries have improved significantly in recent years and price competitiveness has become a key decision

criterion.

Europe and Japan support mostly separate research programmes on environmental issues, from noise to emissions. We believe that the eco-technology at all aircraft speeds is one of the fields where further cooperation between Europe and Japan could yield significant cooperation and business opportunities.

WP-3 / #12 / EJ to EJ Cooperation in Aircraft Certification

Cooperation between Japanese and European aircraft certification authorities should be upgraded. Specifically, the BRT recommends the signature of a Bilateral Aviation Safety Agreement (BASA) between the JCAB and the EASA that would cover both type certification and maintenance activities.

< Recent Progress >

Significant progress has been made towards a BASA between Japan and the EU.

< Background >

There is a bilateral agreement between US and Japanese civil aviation authorities that facilitates the mutual acceptance of the other party's certification basis, while there is only a working arrangement between Europe (EASA) and Japan (JCAB) that proves extremely difficult to work with. Validation by JCAB of European Type certified aircraft is a very lengthy process. In particular, validation of EASA-certified new optional equipment for helicopters whose Type Certificates are already validated by JCAB should be almost automatic, but instead the Japanese authority requires a review of all the technical documentation before approval. This is often the cause of delivery delays of the products to Japan and may at times preclude European manufacturers from fairly competing in public tenders, due to stringent delivery requirements. Moreover, Japan is probably the only country in the world where the Rotorcraft Flight Manuals must be translated into the local language and approved by the local authority, again representing an obstacle to helicopter imports.

WP-3 / # 13 / EJ to EJ Cooperation on Navigation Regulations for Helicopters

Establish an increased level and better cooperation between Europe and Japan on the development of low altitude IFR routes and satellite based navigation regulations for helicopters.

<Recent Progress>

There has been progress on this recommendation. Europe's SESAR air traffic management systems programme and Japan's CARATS committee on future air traffic systems established a framework for technical cooperation.

< Background >

The US, Europe and Japan are working on developing their own regulations and infrastructure without an adequate level of exchange of information and

standardisation. European and Japanese territories have more similarities than each has with the US, so that Europe and Japan should work more closely and with a shared approach. Many European helicopters are already equipped with the hardware to interface with ground based / satellite based infrastructure already established to allow low altitude IFR routes, Point-in-Space navigation and GPS precision approaches, but that may prove useless if there is no cross recognition of standards and regulations (software) between the countries.

It is expected by the aviation industries that the bilateral agreement between EASA and JCAB will move forward.

Space

WP-3 / # 14 / EJ to EJ Regulatory Cooperation in Space Operations

Europe and Japan should not lose the momentum and continue to cooperate closely on regulatory matters in the space sector.

< Recent Progress >

The Space Activities Act has now been passed and will come into effect in November 2018. The registration process for space actors has opened in November 2017. The Satellite Remote-sensing act, dealing with Earth Observation activities and including the legal basis of Japanese involvement in the Global Navigation Satellite System (GNSS), has also been enacted.

< Background >

As healthy EU-Japan trade and cooperation in space services calls for common legislative and regulatory ground, we welcome the new Japanese space regulations which are deemed to be in line with the EU positions uttered within the EU-Japan Space Policy Dialogue held on 7 October 2014 and 8 March 2016.
The Space Activities Act and the Satellite Remote-sensing act appear congruent with what the EU Authorities expected. Notably, the licensing process of space actors authorized to collaborate with Japanese counterparts is deemed fair and in accordance with our European legal backbones.

We do hope to further our space partnership on regulatory matters by keeping on collaborating through the EU-Japan Space policy Dialogue in the years to come.

Recommendations from European industry

Aeronautics

WP-3 / # 15 / E to EJ **A380 day-time operations at Haneda airport**

Haneda is the preferred gateway for visitors to Japan. With the continuing impressive growth of traffic into Tokyo, Haneda needs larger aircraft such as the A380 to accommodate the growth in traffic.

The main issue that has been identified for day-time operation of the A380 at Haneda is the wake vortex. EASA, the European Airworthiness Authority, has developed a methodology (EU-Recat) that allows to maximise the operation of the A380 into airports such as Haneda. EU-Recat is used successfully in other heavily congested airports around the world, such as Heathrow and Dubai.

< Recent Progress>

No progress has been seen on this recommendation. However, the recent approval of the 747-8i (Code F aircraft) for day-time operations in Haneda offers hope that the A380 (also a Code F aircraft) will be approved soon for day-time operation as there are some airlines wanting to operate the A380 into Haneda.

< Background >

Very large aircraft such as the A380 can help increase airport capacity and throughput while at the same time reducing congestion. As an example, London Heathrow added over 2 million passengers in 2017, a 3% increase in passengers figures, to 78 million, with no additional flights, thanks to airlines deploying more A380s into the airport. Even though the number of flights will grow together with the demand, it will be limited in the end by the capacity in terms of slots in 2020. The recent dramatic increase in the number of foreign visitors to Japan, going from 5 million in 2010 to 28 million in 2017 has caused the GoJ to revise the target upwards to 40 million for 2020. To see traffic grow at Tokyo's airports and more specifically Haneda, the use of new and larger aircraft will be an important part of the airlines' strategies. ANA's order for three A380 illustrates the start of the change. The A380 is significantly quieter and environmentally friendlier than older aircraft now in use at Haneda airport and, with plans to overfly the city to increase flights to and from Haneda, it is essential that quiet aircraft are used as much as possible. EASA is ready to assist JCAB in implementing EU-Recat for the benefit of the Japanese economy.

Space

WP-3 / # 16 / E to EJ Technological and industrial cooperation on Japanese and European next generation of launch vehicles

There is a similarity regarding the environment surrounding Japanese and European national launchers: Both have the responsibility vis-à-vis each respective government to guarantee an independent access to space and due to insufficient institutional demands, both have to be commercially competitive in order to maintain a sufficient number of launches. Considering this similarity and the limited governmental budgets, Japanese and EU Authorities should strengthen technological and industrial cooperation in the framework of the development of new generation of launch vehicles – the Japanese H-III and the European Ariane 6.

< Recent Progress >

Current studies are ongoing between Japanese space agency (JAXA) and European space agencies (French CNES and German DLR) based on a reusable reduced scale first stage rocket demonstrator named Callisto.

The Ariane 6 backup launch services for the HTV-X were studied between JAXA and Arianespace.

< Background >

Considering the concomitant development of next generation launch vehicles in Japan and in Europe, which will be based on the same non-reusable technological approach, Japan and Europe could, following the fruitful partnership implemented on the reusable demonstrator Callisto, invest together in a common development on reusable technologies for H-III and Ariane 6 improvements at a 2025-2030 horizon. In addition to the Callisto related cooperation, a wider industrial strategic cooperation for a wide span of schedule (short term, middle term, long term) should be jointly studied and implemented for the mutual benefit.

WP-3 / # 17 / E to J Mutual Backup of Government Satellite Launches

Japanese and EU Authorities should bring about a mutual backup cooperation scheme of government launches using Japanese and European launcher fleets. In particular, the International Space Station future automated cargo spacecraft HTV-X could benefit from a back-up launch service aboard the future European Ariane 6 launch vehicle.

< Recent Progress >

No progress has been seen on this recommendation. Current discussions are ongoing between Japanese and European industry in order to implement a back-up scheme for the launch of the HTV-X spacecraft.

< Background >

Europe's launcher Ariane 5 and Japan's H-IIA are in an arrangement to back up each other's commercial satellite launches. This reduces the risk of long launch delays due to launcher technical problems. Discussions between the MEXT and the European Space Agency towards a similar back-up arrangement for government launch missions have been going on for many years but have not yet produced results.