FUJITSU

Fujitsu Positioning Paper on the EU Inception Impact Assessment on Artificial Intelligence

Fujitsu is one of the leading global ICT companies and the largest in Japan. We have around 129,000 Fujitsu colleagues working with customers in over 180 countries. Fujitsu is committed to investing in R&D with Laboratories and Innovation Centers in Japan, Asia, Europe and US. We use our experience and the power of ICT to shape the future of society with our customers.

Fujitsu's Vision is to enable a **Human Centric Intelligent Society** that creates value by connecting infrastructure, empowering people and creatively defining new forms of intelligence. We are transforming into a strong and reliable **Digital Transformation Company** by investing in our people and new key technologies such as AI, Blockchain and Quantum inspired solutions. Our ambition is to contribute to the benefit of all citizens and society in line with the **UN's Sustainable Development Goals** by supporting customers from across the public and private sectors. Investing in AI and Data is critical to achieving this.

Europe is at the heart of our global business. We employ 20,000 people and offer a full portfolio of business-technology products, solutions and services, ranging from workplace systems to datacenter solutions, managed services, and cloud-based software and solutions. In 2018[1] Fujitsu signed a long-term research and co-creation program with INRIA in Paris-Saclay to develop new AI and machine learning techniques by leveraging advanced mathematics and computing. The **Fujitsu AI Center of Excellence in France** is now operational, employing a growing number of researchers and AI experts developing R&D projects (including Horizon2020) adopting a co-creation approach with our customers.

We value the efforts of the European Commission in creating a common approach to AI in Europe and welcome the opportunity to share our thinking on this vital topic. **Fujitsu shares the EU's commitment towards achieving Human Centric trustworthy AI**[2]. Fujitsu strongly supports the European Commission's key objective to foster the development and uptake of safe and lawful AI that respects fundamental rights across the Single Market while ensuring inclusive societal outcomes. Fujitsu, as an AI system developer and provider, is happy to discuss this further with the Commission.

1 Protecting fundamental rights

We support the concept of **trustworthy AI, based on European values and protecting Fundamental Rights.** Fujitsu aims to incorporate **ethics in the AI system lifecycle** for all 'high-risk' AI solutions, consistent with guidance from the EU.

Fujitsu is a founding member of the AI4People Stakeholders Forum, launched in 2018 at the European Parliament. We are currently participating in several committees to develop recommendations for "AI&Ethics" for the Financial and Automotive sectors. As part of this work, Fujitsu Laboratories is developing joint use cases and banking models focused on the ethical challenges of AI technologies within the banking and finance sectors. Fujitsu Laboratories of Europe has also been appointed as a senior/advisory member of the European Consultation on Artificial Intelligence (ECAI) High-Level Group. Organised in conjunction with AI4People, the ECAI is heading up an extensive public consultation on AI

[1] Fujitsu Press Release 2018 - here
[2] Fujitsu Group AI Commitment 2019 - here

across 12 European countries, representing the first initiative of this kind, and Fujitsu is pleased to have the opportunity to play a key proactive role in helping to shape future policies that reflect public opinion on AI, its Ethics and its Governance.

In coherence with the principles and values of the Guidelines of the High-Level Experts Group, Fujitsu supports the Japanese Government's Social Principles of Human-Centric AI[3] and the AI principles endorsed at the G20 Ministerial Meeting in Tsukuba last year. The European Commission and Japanese Government share many common principles and should continue to work together at international level to ensure these principles are endorsed by other countries.

We recommend the European Institutions, Member States and all stakeholders to work together in order to create "**An Ecosystem of Trust"** where AI and Ethics can have a key guiding role in the development of new solutions (as set out in the Fujitsu Group AI Commitment[4]). In this regard, Fujitsu had the pleasure to participate in the "Deep dive Interview" on the AI and Ethics related assessment list. We had the opportunity to provide ideas to make this tool effective for companies of all sizes.

Through these activities, we have observed that sometimes **AI properties are misleading** and do not reveal the great potential that AI actually has. Our recommendation to the European Commission is to address the essential issues regarding citizens' safety, health and fundamental rights, through carefully unraveling each one of them and assessing the risks.

For example, the issues related to **"discrimination caused by AI**" can be the result of two main challenges: the human bias hidden in the 'learning data' that humans provide and collect, and the bias due to the way AI systems work. The ability to ensure the fairness of AI outcomes is still in development but we are convinced that our human-centric approach plays an important role in addressing them.

The typical AI development process takes the approach of hypothesizing "a fair status in the real world" and narrowing the gap between *it* and the mathematical model outcome. The idea is that the smaller the gap, the closer the AI outcome is to "a fair status in the real world". However, our Labs found this approach has technical and ethical limitations and **the mathematical model cannot be a silver bullet to solve it**. In particular, it is difficult to formulate a basic hypothesis in the first place, because "a fair status in the real world" varies according to country, culture, generation, income group, religion, ethnicity, etc.

To overcome this barrier, **Fujitsu is working on a design-oriented approach, based on our Human-Centric policy**. With this approach, we observe society first, then look at fairness, consider the standard, and reproduce a true representation with AI. To make it successful, we have set out the Fujitsu Group AI Commitment and are working on instilling it in our members all over the world. In this sense, we are truly committed to engaging with the European Commission, EU Member States, Japanese and other Governments to align our policies.

We also recognize the importance of ensuring **transparency.** Interestingly, the case[5] where AI can avoid gender discrimination or creating disadvantages for women, shows that the challenge is actually in the processing and use of the data, and not the classification and identification, (such as 'men and women'). To this end, the purpose of transparency should not be to disclose all technologies and algorisms. Instead, we believe it is important to make the AI system transparent by **allowing users to understand it, and third parties to verify the process of the AI systems,** such as how to test the fairness of AI, and what standards are used to assess it.

[3] Japanese government AI Strategy here
[4] Fujitsu Group AI Commitment – 5 Principles here
[5] MIT Techreview There's an easy way to make lending fairer for women. Trouble is, it's illegal.'
https://www.technologyreview.jp/s/172585/theres-an-easy-way-to-make-lending-fairer-for-women-trouble-is-its-illegal/

We recommend the EU to **encourage AI developers and providers who endeavor to ensure the transparency and fairness of AI outcomes and AI users, to choose** vendors who implement such measures and exclude those that do not. In the current market, where such mechanisms are lacking, vendors who invest in the transparency and fairness of their AI systems, do so at a price disadvantage to those who provide AI systems without such an investment. Therefore, few businesses can proactively promote such AI systems. We need to change this situation, and we would like to ask the European Commission to create mechanisms to deploy trusted and human-centric AI.

As the examples above show, ethical perspectives are still in discussion amongst key stakeholders and we need continuous effort to discuss AI and Ethics on a **case-by-case approach**. Indeed, in many business cases our Public Sector customers have stopped adopting new AI solutions due to the difficulties in proving that particular AI solution is transparent, reliable and consequently trustworthy. A **"Technical Trial" for AI Algorithms** could be a practical idea to create more trust, in particular with the Public Sector, by defining minimum baseline requirements and guidelines with the customers. This would help both developers and users in Public Sector to understand if the AI solution they are considering is going in the "right direction" and could work both from a legal and technical perspective.

2 Safety

Today, **discussions on the safety and risks of AI-powered products have just begun on a sector-by-sector basis**, and it is premature to expect then to converge. The concept of "safety" and "risk", which is the basis of discussion, differs depending on each customer, such as manufacturing, healthcare, and security. Some of them rely on human judgment to ensure safety, while others rely on AI control to ensure safety without compromising on productivity. Therefore, the current discussion is not about the safety requirements that apply to all AIs, but about which cases and sectors AI solutions should be implemented, in particular starting with high-priority areas.

We look forward to the EU working with stakeholders (Industry associations, consortiums, governments, etc.) to advance discussions on how to ensure safety at global level in order to ensure consistency.

Nevertheless, we would like to emphasize that **the scope of the PL Directive should not be expanded to impose liability on AI-based technologies** beyond those incorporated into the hardware. Such a change of scope could leave AI system developers with the responsibility for problems that they cannot have any control over, and could discourage industries from developing and using AI systems.

3 Liability

We understand that the characteristics of AI may give rise to the case where it is difficult to trace the damage back to a person and implement compensation approaches.

AI technology itself is neutral and can be a problem or a solution, depending on how it's used. Therefore, we believe that placing legal liability on the AI developers could increase the risk of AI technology development itself, despite being neutral in nature, resulting in a decline in Europe's competitiveness in the sector.

4 Remote biometrics identification

Definition and correct understanding of 'remote biometric identification' needs clarification among stakeholders. Classification of remote biometric identification, according to its purpose and use, might help to focus discussions on the essential problem. Remote Biometric Authentication of public spaces is also a neutral technology that can be a problem or solution depending on the application. In particular, we should not forget that facial-recognition technology contributes to protecting the fundamental rights of EU citizens through maintaining safety and security in the public space. We, as a vender, do not, however, highly rate 'remote-biometrics' as a form of personal identification. Biometric authentication which uses 'non-contact devices' or 'non-contact multi-biometric identification service system' cannot identify a specific enrolled user within one million. In fact, it is very difficult to identify a single person from large groups of people using only remote facial-recognition or facial data. In general, individuals can be identified by combining facial data with data collected by other IT systems or even by humans, such as addresses and specific activities.

The challenges with remote biometric identification technology, should be discussed separately to the question of its regulation, and without distinguishing between the three perspectives of remote biometrics identification (racial discrimination, abuse and privacy), which might be detrimental to the European market and industry. **Personal data which biometrics use is already covered in the GDPR,** and no new AI-specific regulation is needed. On the other hand, we recognize there is legal uncertainty amongst local regulations defining the use of biometric identification for country safety and security purposes. We strongly believe harmonization would be beneficial.

In addition, technologies that enable more trusted biometric authentication, such as technologies that can generate a plurality of different codes from biometric information, or that can be collated while encrypted, are being developed one after another. **We believe it is necessary to create a market environment in which companies that invest in protecting ethics, safety, and privacy do not have a price disadvantage in the market.**

5 Fujitsu's opinions on EC's alternative options to the baseline scenario

Fujitsu would like to stress the importance of **balancing innovation and regulation** in order to realize the benefits of an advanced and reliable data-driven society, while also ensuring global regulatory harmonization that avoids unnecessary fragmentation. We called it an "**AI legislative comfort zone**". One of the main reasons that AI solutions are not being developed in Europe is due to the lack of clarity about what is possible and what is not. This is preventing lot of business discussions with both public and private customers who appreciate the potential of AI solutions in solving their challenges but prefer not to take risks related to regulation compliance.

We support the Commission's proposal to prioritize high-risk AI applications following a risk-based approach to address the concerns about the use of AI. The definition and assessment of "high risk" should be based on the existing legislation and standards in sectors, and also in international standardization organizations.

In this sense "**Option 4**", a combination of soft law, voluntary labelling schemes and EU legislation, establishing mandatory requirements for certain types of AI applications, could be the way forward to tackle the AI related challenges flexibly. This is important to ensure an effective level of respect of the European Values, Fundamental Rights and rules and at the same time ensuring a high level of technological competitiveness in Europe and cooperation with other countries.

In its 2019 Report entitled "On good AI Governance" the AI4People suggested a number of recommendations. Among them, the need for a "**S.M.A.R.T. Model of Governance**, for both governments and businesses which is adequate for tackling the normative challenges of AI, while being Scalable, Modular, Adaptable, Reflexive, and Technologically-savvy". The concept of "**Co-regulation",** – a type of **"middle-out" approach is interesting.** It refers to how legal regulation and self-regulation interact. A good example is the Regulation 2019/1150 on platform-to-business (P2B) trading practices, where hard law is the basis for corporate codes of conduct and dispute resolution mechanisms, under public sector surveillance and analysis of outcomes, with updates of the hard law requirements as a possible step at any time. A combination of top-down and bottom-up approaches with a strong use of developers and users public consultations and participant mechanisms should be the right way to address a huge number of different AI solutions with different levels of related risk.

Within this scenario, an **AI regulatory Comfort Zone** should be promoted by adopting guidelines, which are shared with businesses and users, and are open to consultations, debates and possible review. Some specific industrial sectors already have a clear set of rules and these must be adapted (if necessary) to the new possible set of rules, requirements, labels and standards for AI.

Labels and standards for AI that are discussed at European level, should be constantly reviewed in cooperation with the international standards bodies, governments and other organizations representing industries, consumers and civil society. We note that ISO/IEC JTC 1/SC 42 is drafting the definition of AI and will publish the TR in 2021.

6 Conclusion

Fujitsu strongly encourages the European Commission to pursue an effective AI approach and strategy for the European market, which is able to play a leading role at a global level. We appreciated the opportunity to express our viewpoint on the next possible legal initiatives and on the different options the EU is considering. We remain convinced that a step-by-step approach, based on the definition of concrete cases and risks, is the baseline. A combination of different regulatory tools should be the way forward in order to ensure sufficient flexibility and, at the same time, provide clear rules.

The alignment of key principles for AI and new technologies between the Japanese Government and the European Union is an important common ground for further cooperation at an international level. Fujitsu is committed to continue working closely with both the Japanese Government and the Commission by providing advice and contributions from our experts in order to achieve a global view with a strong presence from both regions, with the ultimate intent of delivering benefit for our societies and citizens.