

Nokia's Comments on the European Commission's White Paper on AI of 19 February 2020

To be read in conjunction with the answers submitted by Nokia to the public consultation

13 June 2020

Additional Comments to Nokia's Response to the European Commission's Consultation on the White Paper on Artificial Intelligence

13.06.2020

1 Introduction

Nokia welcomes the European Commission's White Paper on Artificial Intelligence and the opportunity to provide feedback during the current public consultation phase, in addition to our contributions made as a member of the European Commission's High-Level Expert Group on Artificial Intelligence. We believe that continuous engagement and inclusive dialogue with all stakeholders during the difficult process of developing a policy and investment framework for Artificial Intelligence are essential.

This document presents Nokia's remarks in addition to the comments provided in the survey itself, for purposes of offering some explanations on some of the complex technical aspects addressed therein.

Principles

1. **Nokia supports a proportional, risk and opportunity-based evaluation of technologies, including Artificial intelligence.**
2. **Nokia agrees with the European Commission that relevant legislation on Artificial Intelligence is best introduced as domain specific regulation.**
3. **The regulation should be based on evidence, gathered through pilots organized in regulatory sandboxes assessing the impact of the proposals for regulation, as well as on a comprehensive assessment of trustworthiness of the Artificial Intelligence system deployed (for example. According to the guidelines proposed by the European Commissions' High-Level Expert Group on Artificial Intelligence), rather than on presumed threats.**
4. **Nokia supports the European Commission's goal to strengthen the Digital Single Market and to harmonize processes used across the European Union and welcomes the European Union's efforts to drive human-centric, trustworthy Artificial Intelligence deployments globally.**
5. **A clear definition of Artificial Intelligence is essential.**

2 Clarifying Comments

The European Commission points out in its White Paper on Artificial Intelligence that most of the regulatory needs which are yet to be addressed by domain specific regulation are in the areas of transparency, traceability and human oversight. We will comment on each of these areas.

2.1 Transparency and Traceability

2.1.1 Transparency and traceability in software

Software, such as Artificial Intelligence ('AI') solutions, is basically computer code running simple instructions on a machine. Large scale implementation of program software code includes interactions of the software with other programs running on the machine, faulty programming, problems in the logic of the code, making debugging a very challenging task. However, with modern tools one can build reliable software code that runs even critical systems in the society.

However, there is a risk that malicious or unforeseen effects of problems in other software running on the computer will compromise the system, even if the solution itself is performing nominally. These issues should be addressed by building a high level of cybersecurity into systems, especially in critical applications. These issues are typically found in all types of software, not just in AI systems. These problems are very well known in the software industry. On the principal level, all software is fully traceable and transparent from the binary and source code (if available).

We believe that the question of traceability and transparency may be misunderstood by the European Commission and needs to be explained better.

Addressing these issues depends in practice on the complexity of the code and the capability to follow the logic of millions of lines of code, as well as on whether the code is available (i.e. open sourced) and whether the logic of the programming is sound.

2.1.2 Transparency and traceability in deployed AI systems

Modern AI, based on machine learning and particularly on deep learning, is different. The code base is in most cases open sourced, therefore scrutinized by the scientific community, and also very short. Most inference codes in deep learning define the problems in less than a few thousand lines of codes – i.e. easy to understand, and easy to produce with appropriate skills. The code and the logic of actions in the code are much easier to address in deployed AI systems than in regular software deployments.

2.1.3 Transparency and traceability in the training of ML and AI systems

The quality of the machine learning data resides in the quality of data used in training and problems can be traced back to the quality of the systems from which the data is gathered. Large data sets may also contain discriminatory data, flawed decisions, faulty sensor data etc.

Hence, in order to ensure the traceability and transparency of AI solutions, there is a need to digitally record data sets which are sufficiently large to properly cover the application. Also, the integrity of the data sets should be ensured, and most importantly, they must be analyzed and properly pruned to eliminate flawed data.

Machine learning, including deep learning, provides tools to do exactly that. First, training AI solutions on the gathered data is an efficient way to identify bias and discrimination in the data set. Second, providing training access to the data will enable retroactive analysis of the processes that have created the data and eventually solve the problems by changing the discriminatory processes, rather than simply trying to remove their echoes and reflections from the data.

So, the traceability and transparency of the AI solutions is practically a matter of ensuring that the processes that have created the data are actually transparent and traceable. This is a regulatory and legislative problem that is much wider than the context presented by AI. It is a problem related to the principles of good governance and openness of our society at large, beyond the scope of the feedback requested in this public consultation.

2.2 AI quality issues are better handled at sector level

The quality requirements for different deployments vary significantly between domains. An AI feature in a computer graphics of a game has totally different requirements than a feature used in medical analysis, because the consequences and the risks are different in each use case.

AI quality is dependent on the quantity and quality of the data used to train the system and the correctness of the results inferred. Also, a high-quality AI implementation can be acceptable for certain use cases, while unacceptable for others. This is particularly relevant for the discussions on biometric identification. We encourage the European Commission to identify the specific domains and initiate sector-specific processes in adapting the existing laws to the demands of the AI era.

The European Commission's White Paper on AI is referring to problematic cases like criminal recidivism predictive bias and racial bias in performance. The former is actually an AI success story, as it proves that the system used currently is discriminatory, i.e. the AI solution is used a wrong way. The latter is a case of an imbalanced data set, which can be solved by including enough data for the training of the AI system. This is an example of poor AI design that is not done according to the high-quality standards and of sloppy data acquisition.

Nokia suggests that these problems are handled domain per domain, at sector level.

2.3 Human agency

The involvement of humans in automatic decision-making is application and domain specific and should not be addressed at framework level.

For purposes of reaping the full benefits of AI-based automation of tedious, dangerous, or repetitive human tasks, the requirement that there should always be a human in the loop is in fact detrimental. This is especially true in cases which require and benefit from very fast response times (e.g. avoiding an accident or high frequency trading) and in cases where one can make capabilities accessible at a much cheaper cost than with continuous human involvement.

Nokia supports the option presented in the White Paper that suggests the output of the AI system becoming immediately effective, while ensuring post ante human intervention (e.g. the rejection of an application for a credit card may be processed by an AI system, but human review must be possible afterwards).

Nokia supports technologies that use AI to bridge the gap between software systems and automation, so the interaction with these becomes easy, predictive and accessible. AI systems will reduce the digital divide and while automation will render some professions redundant, these will bring AI capabilities to everyone.

Nokia is of the opinion that human agency is best addressed by bringing the benefits of AI to everyone everywhere. In addition, Nokia's core mission consists in building better and better communication capabilities and bringing information, services, education, knowledge and work to people everywhere (e.g. remote work in COVID-19 time).

2.4 Risk classification

Nokia welcomes the risk-based proportionality of actions discussed in the European Commission's White Paper. However, the idea of pre-defined risk areas in general, framework AI regulation is, in our opinion, problematic.

As mentioned above, the definition of AI is too vague and distinguishing between regular software deployments and AI in a legally consistent way is seen as challenging. This approach will lead to significant barriers to innovation being raised for the whole software industry.

For example, an approach adopted by many companies is to prune out intelligent UI (User Interface) elements from their systems to be on the safe side. Losses caused by the lack of usability of the systems will in fact contribute to problems being spread more widely. In fact, one of the major challenges in creating competitive consumer products in Europe has often been related to problems on the UI side.

Simplification of the process is good. However, there may be risks in "benign" domains or totally risk-free systems in areas typically considered as risky. A better way to address this complexity is to insert risk assessment clauses into the domain-specific legislation taking into account the specifics involved. The risk profiles are very different in specific sectors.

Nokia is of the opinion that the risk scenarios built on experience gained from historical low-quality deployments of AI, or from hypothetical, fictional AI narratives is not warranted. The assessment and deployment of AI must build on real experience from trials and scientific analysis. Nokia expects that domain-specific regulation is more flexible in reacting to identified deficits, as well as enabling identified opportunities.

High quality regulation not only enables innovation and investment in R&D for purposes of increasing knowledge about the yet unknown aspects of AI but also is of paramount importance in educating all stakeholders about the known features of AI.

Ultimately, by understanding more about the artificial intelligence, we could get a glimpse into the real nature of our own intelligence as well.

Nokia's response on the European Commission's White Paper on AI of 19 February 2020

Full answers to the public consultation with no character limitation below

CONSULTATION

White Paper on Artificial Intelligence

SECTION 1 – AN ECOSYSTEM OF EXCELLENCE

To build an ecosystem of excellence that can support the development and uptake of AI across the EU economy, the White Paper proposes a series of actions.

1.1 In your opinion, how important are the six actions proposed in section 4 of the White Paper on AI (1-5: 1 is not important at all, 5 is very important)?

	1 - Not important at all	2 - Not important	3 - Neutral	4 - Important	5 - Very important	No opinion
Working with Member states	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Focussing the efforts of the research and innovation community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Focus on SMEs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Partnership with the private sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Promoting the adoption of AI by the public sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1.2 Are there other actions that should be considered?

500 character(s) maximum

In addition to the above, European and global cooperation will ensure the European Union contributes, as well as reaps the benefits of trustworthy AI (inclusive growth, sustainable development and well-being; human-centred values and fairness; transparency and explainability; robustness, security and safety; and accountability), encompassing the privacy and security of data in multiple sectors and education.

Revising the Coordinated Plan on AI (Action 1)

The Commission, taking into account the results of the public consultation on the White Paper, will propose to Member States a revision of the Coordinated Plan to be adopted by end 2020.

1.3 In your opinion, how important is it in each of these areas to align policies and strengthen coordination as described in section 4.A of the White Paper (1-5: 1 is not important at all, 5 is very important)?

	1 - Not important at all	2 - Not important	3 - Neutral	4 - Important	5 - Very important	No opinion
Strengthen excellence in research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Establish world-reference testing facilities for AI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Promote the uptake of AI by business and the public sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Increase the financing for start-ups innovating in AI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develop skills for AI and adapt existing training programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Build up the European data space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1.4 Are there other areas that should be considered?

500 character(s) maximum

Most areas are equally important to align policies and strengthen coordination among research, private and public sectors. European data infrastructure and data space as well as ubiquitous broadband connectivity are the main pillars for interoperable data exchange between a wide range of sectors, abiding by EU standards in data protection and security.

A united and strengthened research and innovation community striving for excellence

Joining forces at all levels, from basic research to deployment, will be key to overcome fragmentation and create synergies between the existing networks of excellence.

1.5 In your opinion how important are the three actions proposed in sections 4.B, 4.C and 4.E of the White Paper on AI (1-5: 1 is not important at all, 5 is very important)?

	1 - Not important at all	2 - Not important	3 - Neutral	4 - Important	5 - Very important	No opinion
Support the establishment of a lighthouse research centre that is world class and able to attract the best minds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Network of existing AI research excellence centres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Set up a public-private partnership for industrial research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1.6 Are there any other actions to strengthen the research and innovation community that should be given a priority?

500 character(s) maximum

A coordinated network among existing AI research excellence centres should be prioritised over creating a new one. This network needs to: create a leadership structure to ensure coordination and coherent operation, agree on a vision regarding the focus and priorities beyond national borders and provide continuous financial investment at the necessary level. AI funding should be prominent in Horizon Europe, for core AI research plus AI components in research projects supporting distributed and federated learning, providing data training access, allowing access to multiple data sets, while data remain in the original research centre.

Focusing on Small and Medium Enterprises (SMEs)

The Commission will work with Member States to ensure that at least one digital innovation hub per Member State has a high degree of specialisation on AI.

1.7 In your opinion, how important are each of these tasks of the specialised Digital Innovation Hubs mentioned in section 4.D of the White Paper in relation to SMEs (1-5: 1 is not important at all, 5 is very important)?

	1 - Not important at all	2 - Not important	3 - Neutral	4 - Important	5 - Very important	No opinion
Help to raise SME's awareness about potential benefits of AI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provide access to testing and reference facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Promote knowledge transfer and support the development of AI expertise for SMEs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Support partnerships between SMEs, larger enterprises and academia around AI projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provide information about equity financing for AI startups	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1.8 Are there any other tasks that you consider important for specialised Digital Innovations Hubs?
500 character(s) maximum

Specialised Digital Innovation Hubs should support SMEs and start-ups in their developing, accessing and using AI. Their variety and divergence in terms of digital literacy, sector of activity and size are important for creating different needs.

Digital Innovation Hubs should provide points of contact, as well as services and tangible support in SMEs' transformation, including helping them assess which technologies to adopt and advising how to implement them.

Moreover, SMEs and start-ups could be given access to data sets and federated training with allocated time to Graphical Processing Units (GPUs) and special hardware.

Legal certainty and simple rules are also important, within a proportionate principles-based regulatory framework.

In addition, open source initiatives are needed to support SMEs and start-ups to comply with the European Union's General Data Protection Regulation in relation to AI.

SECTION 2 – AN ECOSYSTEM OF TRUST

Chapter 5 of the White Paper sets out options for a regulatory framework for AI.

2.1 In your opinion, how important are the following concerns about AI (1-5: 1 is not important at all, 5 is very important)?

	1 - Not important at all	2 - Not important	3 - Neutral	4 - Important	5 - Very important	No opinion
AI may endanger safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AI may breach fundamental rights (such as human dignity, privacy, data protection, freedom of expression, workers' rights etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The use of AI may lead to discriminatory outcomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

AI may take actions for which the rationale cannot be explained	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AI may make it more difficult for persons having suffered harm to obtain compensation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AI is not always accurate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.2 Do you have any other concerns about AI that are not mentioned above? Please specify:

500 character(s) maximum

The concerns listed above can easily be addressed by providing evidence of design quality and by demonstrating performance, as well as by reassuring the general public that AI, while technically complex, is really no different than other similar technologies which are widely accepted. Actually, for purposes of assessing the impact and increasing the trustworthiness of Artificial Intelligence, the opposite of these concerns is missing from the list above. AI can be an excellent tool (and sometimes the only available) to find and prove discrimination, a breach of human rights, or to ensure safety to an extent no other tool is currently able to do. All these questions should be considered in the context of what was the safety of the system pre-dating AI, what was the level of discrimination before the use of AI, how much people understood about the technologies or software code used before using AI, and how hard it was to file a request for compensation before AI.

2.3 Do you think that the concerns expressed above can be addressed by applicable EU legislation? If not, do you think that there should be specific new rules for AI systems?

- ☐ Current legislation is fully sufficient
☐ Current legislation may have some gaps x
☐ There is a need for a new legislation x
☒ Other
☐ No opinion

Other, please specify

500 character(s) maximum

Evidently, there is a need for new domain specific, sector-based regulation where AI is likely to have a significant impact, to encourage technological evolution. However, such regulation should be appropriately timed and carefully calibrated to the predictable use cases and impact so as to prevent premature intervention that adversely affects innovation and investment. In addition (and equally important) there is even a need for deregulation within the existing legislative framework (explained in the answers below), as well as in the additional comments provided in the paper attached to this questionnaire.

For example, existing traffic laws should be adapted to enable the use on public roads of autonomous vehicles.

Equally, regulations that enable sandboxing and piloting should be implemented to allow stakeholders to act on the basis of proven data and actual, observed facts, rather than mere assumptions. Also, as an alternative to legislative action, increasing interoperability through cross-domain dialogue and collaboration, and accelerating standard setting activities can also significantly improve quality and trustworthiness of AI applications and expand their use significantly.

2.4 If you think that new rules are necessary for AI system, do you agree that the introduction of new compulsory requirements should be limited to high-risk applications (where the possible harm caused by the AI system is particularly high)?

- ☐ Yes
☒ No
☐ Other
☐ No opinion

Other, please specify

500 character(s) maximum

A significant challenge for the regulation of AI is the lack of a clear and widely accepted definition. Further, the lack of such a definition makes it difficult to accurately define risk which is essential for purposes of creating enabling, domain-specific regulation. Identifying and clarifying the domain-specific use cases could contribute to risk definition and calibration.

Any mandatory requirements in relation to AI systems should be formulated in these domain-specific regulations, commensurate with the identified risks. For example, the regulation of autonomous vehicles should be based on different premises than that of AI used in medical devices, given the significantly different pain points; also, Domain-specific AI systems have a specific degree of robustness on specific tasks, the trustworthiness of which cannot be objectively evaluated outside their particular domain.

(If “yes” clicked) Do you agree with the approach to determine “high-risk” AI applications proposed in Section 5.B of the White Paper?

- ☐ Yes
☒ No
☐ Other
☐ No opinion

Other, please specify
500 character(s) maximum

2.5 If you wish, please indicate the AI application or use that is most concerning (“high-risk”) from your perspective:

500 character(s) maximum

It is worth pointing out that an AI application in itself carries no risk. Rather, it is the use of and AI application that carries a higher or lower level of risk. For example, a benign function like face recognition is harmless in providing access to a building, but if is scaled for mass surveillance, it will most certainly cause ethical and legal issues. Therefore, for this particular use case, certain mandatory requirements for development and deployment should be formulated that would guarantee the use of such applications in a way that does not negatively impact fundamental rights and freedoms.

Also, some use cases should have restrictions on what are the methods that can be used. But there is already similar restricting for examples in the content of advertising (AI or not). So, this can be addressed with domain specific legislation.

2.6 In your opinion, how important are the following mandatory requirements of a possible future regulatory framework for AI (as section 5.D of the White Paper) (1-5: 1 is not important at all, 5 is very important)?

	1 - Not important at all	2 - Not important	3 - Neutral	4 - Important	5 - Very important	No opinion
The quality of training data sets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The keeping of records and data	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information on the purpose and the nature of AI systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Robustness and accuracy of AI systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Human oversight	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clear liability and safety rules	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.7 In addition to the existing EU legislation, in particular the data protection framework, including the General Data Protection Regulation and the Law Enforcement Directive, or, where relevant, the new

possibly mandatory requirements foreseen above (see question above), do you think that the use of remote biometric identification systems (e.g. face recognition) and other technologies which may be used in public spaces need to be subject to further EU-level guidelines or regulation:

- ☐ No further guidelines or regulations are needed
- ☒ Biometric identification systems should be allowed in publicly accessible spaces only in certain cases or if certain conditions are fulfilled (please specify) 1 but
- ☐ Other special requirements in addition to those mentioned in the question above should be imposed (please specify)
- ☐ Use of Biometric identification systems in publicly accessible spaces, by way of exception to the current general prohibition, should not take place until a specific guideline or legislation at EU level is in place.
- ☐ Biometric identification systems should never be allowed in publicly accessible spaces
- ☐ No opinion

Please specify your answer:

The mass scoring and surveillance in public places should be restricted to benign use cases. If a risk is foreseen, it should be accurately specified. Please also refer to our answer under question 2.5. Even when allowed, the use of AI systems in this context should be regularly assessed and the system shall follow the GDPR rules on personal data.

2.8 Do you believe that a voluntary labelling system (Section 5.G of the White Paper) would be useful for AI systems that are not considered high-risk in addition to existing legislation?

- ☐ Very much
- ☐ Much
- ☒ Rather not
- ☐ Not at all
- ☐ No opinion

2.9 Do you have any further suggestion on a voluntary labelling system?

500 character(s) maximum

More important than a voluntary labelling system are the sector-based approvals subject to a number of specific requirements, e.g. for the medical device categories and for autonomous cars. As mentioned before, risk is best defined in the specific context of use cases. Following an impact assessment, it should be possible to determine if users of certain AI systems fulfil certain conditions (e.g. minimum age) or have certain skills (e.g. medical knowledge, knowledge of traffic rules) necessary at a given moment and in a given use case. Such approach would be much more valuable than applying a label (even if voluntary) on the AI system itself, possibly even resulting in a virtuous circle of improvements across the entire spectrum of stakeholders. Identifying the sectors that are not currently subject to specific regulation yet would warrant this in the context of AI use cases should be prioritized.

2.10 What is the best way to ensure that AI is trustworthy, secure and in respect of European values and rules?

- ☐ Compliance of high-risk applications with the identified requirements should be self-assessed ex-ante (prior to putting the system on the market)
- ☐ Compliance of high-risk applications should be assessed ex-ante by means of an external conformity assessment procedure
- ☐ Ex-post market surveillance after the AI-enabled high-risk product or service has been put on the market and, where needed, enforcement by relevant competent authorities
- ☒ A combination of ex-ante compliance and ex-post enforcement mechanisms
- ☐ Other enforcement system
- ☐ No opinion

Please specify any other enforcement system:

500 character(s) maximum

We do not recommend the implementation of additional mandatory assessments of AI systems on top of the impact assessments foreseen by the current regulatory framework. However, certain testing, piloting and due diligence activities are opportune. For high risk use cases, piloting is crucial to assess the performance of the system in specific environments in accordance with a set of values, rights and rules. The requirements finally imposed upon the AI system should be based on the results achieved

in these trials. No mandatory often hypothetical, ex-ante assessment should be utilized as this could have the secondary effect of inhibiting innovation.

2.11 Do you have any further suggestion on the assessment of compliance?

500 character(s) maximum

The assessment of compliance with recommendations is best done through surveys and checklists, which can be both generic, as well as domain specific. Compliance with the generic requirements can be addressed through the tool being developed by the High-Level Expert group. As for compliance with any regulatory requirements, we recommend attention be given to taking a multi-disciplinary approach, with involvement of a sufficiently diverse specialisms, to ensure a technically correct and balanced review.

SECTION 3 – SAFETY AND LIABILITY IMPLICATIONS OF AI, IOT AND ROBOTICS

The overall objective of the safety and liability legal frameworks is to ensure that all products and services, including those integrating emerging digital technologies, operate safely, reliably and consistently and that damage having occurred is remedied efficiently.

3.1 The current product safety legislation already supports an extended concept of safety protecting against all kind of risks arising from the product according to its use. However, which particular risks stemming from the use of artificial intelligence do you think should be further spelled out to provide more legal certainty?

- ☐ Cyber risks
- ☐ Personal security risks
- ☐ Risks related to the loss of connectivity
- ☐ Mental health risks

3.2 In your opinion, are there any further risks to be expanded on to provide more legal certainty?

500 character(s) maximum

An expansion of risks does not seem to be necessary at this time. The current product safety framework is technology neutral and has proven to be fit for purpose, even for technologies that were not in existence at the time when that framework was set up. Further technological developments (including aspects such as software as product, connectivity and even automated decision making) were addressed already through sector-specific legislation. Additional regulation in this domain could give a false sense of legal certainty, while in fact disincentivising investments in innovation and further development of AI. We believe that at a framework level, the risk description is sufficient, whereas specific risks should be identified and addressed through a sector-level approach, as done in the automotive and medical sectors. This is because safety issues and requirements vary significantly between domains, even for AI use cases. For example, the safety aspects and quality requirements for an AI feature in the computer graphics of a game and the AI feature in medical analysis should be different, because the level of risk is significantly different. Adopting a domain approach and building on exiting best practices and standards in a future-proof way should be the preferred approach.

3.3 Do you think that the safety legislative framework should consider new risk assessment procedures for products subject to important changes during their lifetime?

- ☐ Yes
- ☒ No
- ☐ No opinion

3.4 Do you have any further considerations regarding risk assessment procedures?

500 character(s) maximum

New risk assessment procedures are not necessary, rather fine-tuning existing, proven risk assessment processes (such as the data protection impact assessment under the GDPR) in line with technological developments seems more suitable. While it may seem tempting to work with pre-defined concepts such as “high-risk AI” and “low-risk AI”, it is important to give due consideration to the fact that low-risk AI deployment could have distributive effects. Rather, conducting ex-ante and ex-post impact assessments for each AI use case – with a pre-defined approach for the possible outcomes – seems to be more suitable for this rapidly evolving technology. This type of assessment would address the ethical, fundamental rights, safety and liability aspects consistently and in a coordinated manner, while still allowing for specific requirements for particular AI applications which are found to pose high risks to users.

3.5 Do you think that the current EU legislative framework for liability (Product Liability Directive) should be amended to better cover the risks engendered by certain AI applications?

- ☐ Yes
☒ No
☐ No opinion

3.6 Do you have any further considerations regarding the question above?

500 character(s) maximum

The existing basic legal structure already offers victims appropriate means for the recovery of damages caused by Artificial Intelligence applications. Rather than adapting the product liability directive, promoting and expanding concepts and principles such as privacy-by-default and by-design, security-by-design and “trustworthiness-by-design” and incentivising those designers and producers/manufacturers that implement these into the AI solutions they sell, seem to be better approaches which will ultimately result in a healthy competition among qualitative products and yielding benefits for all stakeholders.

3.7 Do you think that the current national liability rules should be adapted for the operation of AI to better ensure proper compensation for damage and a fair allocation of liability?

- ☐ Yes, for all AI applications
☐ Yes, for specific AI applications
☒ No
☐ No opinion

Please specify the AI applications:

We do not see a need to adapt national liability regimes as long as no gaps are identified. However, as in many sectors that are impacted by the digital revolution, there is a clear need for more harmonization of national approaches to strengthen the Digital Single Market.

3.8 Do you have any further considerations regarding the question above?

500 character(s) maximum

As stated above, victims have currently various possibilities to obtain compensation for damages. Contractual allocation of liability as well as insurance coverage allow for recovery of damages and can be applied in addition to tortious liability. In addition, adapting the approach of impact assessments as described above could help uncover issues to be addressed before the occurrence of harm. Actually, the transparency of AI systems should be perceived as an additional guarantee for allocation of responsibility and for appropriate corrective actions which prevent the reoccurrence of the same harm.

Thank you for your contribution to this questionnaire. In case you want to share further ideas on these topics, you can upload a document below.

Contact

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Online link to the Consultation: <https://ec.europa.eu/eusurvey/runner/AIConsult2020>