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20200609 EU Consultation on the White Paper on Artificial Intelligence

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Consultation on the White Paper on Artificial Intelligence - A European Approach

Introduction

Artificial intelligence (AI) is a strategic technology that offers many benefits for citizens and the economy. It will change our lives by improving healthcare (e.g. making diagnosis more precise, enabling better prevention of diseases), increasing the efficiency of farming, contributing to climate change mitigation and adaptation, improving the efficiency of production systems through predictive maintenance, increasing the security of Europeans and the protection of workers, and in many other ways that we can only begin to imagine.

At the same time, AI entails a number of potential risks, such as risks to safety, gender-based or other kinds of discrimination, opaque decision-making, or intrusion in our private lives.

The European approach for AI aims to promote Europe's innovation capacity in the area of AI while supporting the development and uptake of ethical and trustworthy AI across the EU. According to this approach, AI should work for people and be a force for good in society.

For Europe to seize fully the opportunities that AI offers, it must develop and reinforce the necessary industrial and technological capacities. As set out in the accompanying European strategy for data, this also requires measures that will enable the EU to become a global hub for data.

The current public consultation comes along with the White Paper on Artificial Intelligence - A European Approach aimed to foster a European ecosystem of excellence and trust in AI and a Report on the safety and liability aspects of AI. The White Paper proposes:

- Measures that will streamline research, foster collaboration between Member States and increase investment into AI development and deployment;
- Policy options for a future EU regulatory framework that would determine the types of legal requirements that would apply to relevant actors, with a particular focus on high-risk applications.

This consultation enables all European citizens, Member States and relevant stakeholders (including civil society, industry and academics) to provide their opinion on the White Paper and contribute to a European approach for AI. To this end, the following questionnaire is divided in three sections:

- **Section 1** refers to the specific actions, proposed in the White Paper's Chapter 4 for the building of an ecosystem of excellence that can support the development and uptake of AI across the EU economy and public administration;
- **Section 2** refers to a series of options for a regulatory framework for AI, set up in the White Paper's Chapter 5;
- **Section 3** refers to the Report on the safety and liability aspects of AI.

Respondents can provide their opinion by choosing the most appropriate answer among the ones suggested for each question or suggesting their own ideas in dedicated text boxes. Feedback can also be provided in a document format (e.g. position paper) that can be uploaded in the Commission's online questionnaire.

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.

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				X		
Focussing the efforts of the research and innovation community					X	
Skills					X	
Focus on SMEs					X	
Partnership with the private sector					X	
Promoting the adoption of AI by the public sector					X	

Are there other actions that should be considered?
[insert text: 500 characters maximum]

Standardization as a mean to achieve a harmonized European market and to foster innovation has not been addressed sufficiently in the whitepaper. Moreover, standards will be the key for an EU-wide certification of AI products, services, and companies using or providing AI based technologies and, thus, are a necessary element of establishing a common level for trustworthiness and performance throughout Europe.

The experts of the German DIN's National Standardization Committee for AI therefore believe that the promotion of European standards is a highly important sixth action to be taken by the European Commission.

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.

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					X	
Establish world-reference testing facilities for AI					X	
Promote the uptake of AI by business and the public sector					X	
Increase the financing for start-ups innovating in AI					X	
Develop skills for AI and adapt existing training programmes					X	
Build up the European data space					X	

Are there other areas that that should be considered?

[insert text: 500 characters maximum]

N/A

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.

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		X				
Network of existing AI research excellence centres					X	
Set up a public-private partnership for industrial research					X	

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

[insert text: 500 characters maximum]

A lighthouse centre as only one research centre would not be beneficial as it concentrates excellence in one place at the risk of reducing the plurality of opinions and ideas in general, and of excluding researchers from other areas within the EU. Additionally, a monolithic approach goes against the current (highly successful) distributed European research infrastructure, likely not leveraging the existing excellence.

Similar to standardization, research on a European scale ought to be a participatory and collective effort uniting the expertise, priorities and viewpoints of a plurality of diverse stakeholders.

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.

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					X	
Provide access to testing and reference facilities					X	
Promote knowledge transfer and support the development of AI expertise for SMEs					X	
Support partnerships between SMEs, larger enterprises and academia around AI projects					X	

Provide information about equity financing for AI startups				**X**		

Are there any other tasks that you consider important for specialised Digital Innovations Hubs?

[insert text: 500 characters maximum]

N/A

Section 2 - An ecosystem of trust

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

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						
AI may breach fundamental rights (such as human dignity, privacy, data protection, freedom of expression, workers' rights etc.)						
The use of AI may lead to discriminatory outcomes						
AI may take actions for which the rationale cannot be explained						
AI may make it more difficult for persons having suffered harm to obtain compensation						
AI is not always accurate						

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

The table as currently included in the consultation template is open for a wide variety of interpretations by the respondent, casting doubt on the overall usefulness as a tool for gathering targeted input to topics with potentially significant ramifications on the policy level.

Generally, it seems questionable whether the proposed angle and granularity of information are suitable for an expedient discussion regarding the topic of potential risks posed by the introduction of AI components into practical applications. The majority of provided concerns in the current phrasing seem to indicate that AI as a technology would be the root cause of potential problems; this is beyond the point (or even misleading) in that the described problems are much rather due to misuse or abuse of systems using AI and, thus, reside on the side of the system designer, provider and/or operator. Therefore, the corresponding problems are unlikely to be solved on this level of discussion, but seem to require targeted work with established domain experts in AI, safety and security of technological systems, regulation of technological systems, etc.

Additionally, leaving the apparent focus on safety considerations underlying the indicated topics aside, attention should be given to the fact that AI may engender security vulnerabilities (ref. to intentional acts, such as attacks, as opposed to accidents), as well as to the blurred lines in the distinction of safety and security when talking about AI systems.

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?
[Choose only 1 option]

Current legislation is fully sufficient	
Current legislation may have some gaps	
There is a need for a new legislation	
Other	**X**
No opinion	

[If you chose] Other, please specify

[insert text: 500 characters maximum]

Reviewing the current landscape, we find that most industrial applications do not need new regulations as they are already sufficiently covered by existing ones, like the Machinery Directive. Sector-specific legislation exists in particular for those sectors regarded as "high-risk" in the AI White Paper. Across sectors, data protection and privacy topics are addressed by the GDPR.
However, in order to have a common understanding about applying the existing rules, guidance would be helpful on how to apply sector-specific legislation as well as horizontal legislation, like the GDPR.

Notwithstanding, efforts have to be made to identify and cover the few remaining gaps, and to assure that existing and newly introduced legislation

remains adaptive and gets continuously and mutually informed by standardisation efforts and assessments of the rapidly developing potential of AI applications.

In the context of these efforts but also generally in the context of AI legislation there is an urgent need to avoid competing goals among EU and member states policies/priorities, and among overarching and concomitant EU policies (such as the Industrial Strategy for Europe, the EU Strategy for Data, but also the EU Dual Use regulation) with regard to standards and assessment criteria, and before deciding to define red lines for AI in legislation.

Regarding the above, particular consideration should be given to the following aspects:

- **There is a strong need to streamline the upcoming AI legislative framework with the Industrial Strategy for Europe (COM(2020) 102 final, from 10.3.2020), particularly with regard to the key role of standards and certificates for the functioning and robustness of the single market.**
- **Technology (risk) assessments referring to AI need to take explicitly into account the moving-target and the multi-purpose horizon of applications (including the event of mission creep). Regulatory risk assessments should see the establishment of a continuous monitoring mechanism for registering R&D trends and documenting regulatory good practices ("what works"), including standardisation efforts and results. Furthermore, the relative weight of criteria such as energy efficiency, needs to be recast in risk assessments. As of now, a joint and accepted, AI-sensitive ex-ante assessment template is missing, which limits the elaboration of safety and liability implications of AI, along with a forward-looking base for the formulation of standards.**
- **There is the need to consider Dual Use and Misuse aspects of AI (Council Regulation (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items, currently under review), along other international treaties, such as the Wassenaar Arrangement. Also, from the perspective of safety and security, civilian use cases for standards need to be thought together with defence and space-related related applications (e.g. in the event of synergies, but also risk), particularly when AI is used in the strategic context of critical infrastructures.**

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)? **[Choose only 1 option]**

Yes	
No	

Other	X
No opinion	

[If you chose] Other, please specify

Requirements should focus on the need to perform thorough risk analyses and assessments of the impact AI may have on individuals and society.

Basing compulsory requirements on a general category of "high risk applications", in particular if it strongly emphasizes safety issues, is not appropriate. Relevant risks can, among others, also be related to privacy, fairness, erosion of democratic processes, etc.

[If you chose "Yes" to the previous question] Do you agree with the approach to determine "high-risk" AI applications proposed in Section 5.B of the White Paper? **[Choose only 1 option]**

Yes	
No	
Other	X
No opinion	

[If you chose] Other, please specify

Clear rules have to be defined on how to define high-risk applications based on standardized risk management processes.
Moreover, it is questionable if high-risk applications are limited to specific high-risk sectors, especially taking the different areas of risks (i.e. safety, security, privacy, bias) into account.

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

[insert text: 500 characters maximum]

N/A

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					X	

The keeping of records and data			X			
Information on the purpose and the nature of AI systems					X	
Robustness and accuracy of AI systems					X	
Human oversight			X			
Clear liability and safety rules					X	

It has to be noted that criteria regarding the quality of training data only relate to machine learning, and thus are important only in this particular context. There are numerous other types of approaches to building AI systems that are not based on machine learning.

Regarding the keeping of records and data, this is a procedural requirement that should be better expressed in terms of transparency for data use. Standards such as ISO/IEC 19944-1 can play an important role here.

The need to provide information on the purpose of an AI system depends on the use case. This holds true also for requirements on robustness/accuracy and human oversight.

Clear liability and safety rules are obvious requirements for the use of any technology.

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: **[Choose only 1 option]**

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)	
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	**X**
No opinion	

Please specify your answer

[insert text: 500 characters maximum]

N/A

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? **[Choose only 1 option]**

Very much	
Much	
Rather not	
Not at all	**X**
No opinion	

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

Voluntary labelling of an industrial AI application (in a B2B context) does not offer any added value and is bound to impose an extra administrative burden for companies (especially for SMEs and startups). A B2B relationship is by definition based on trust between partners (supplier/user) and on mutual contractual agreements (specifications) which always ought to be respected. Additionally, since the label is supposed to be voluntary, there is a risk that

some providers of AI systems and services could use it rather in a function similar to a marketing tool.

Instead, it would be more appropriate to invest in the development of testing and validation methods, which would be applied based on a risk impact assessment. Instead of voluntary labelling, the European Commission should consider promoting a proper certification approach for AI systems where meaningful.

What is the best way to ensure that AI is trustworthy, secure and in respect of European values and rules? **[several selections possible]**

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	**X**
Other enforcement system	
No opinion	

[**If you chose "Other enforcement system"**] Please specify any other enforcement system:

[insert text: 500 characters maximum]

Ex-ante mechanisms should concentrate on:

- **Product and service conformity assessments based on an impact assessment in the intended application domain. Standards play an important role (a) to provide methodologies for impact assessment, and (b) to provide technical requirements for risk mitigation.**
- **Organisational certification based on management standards has to complement product and service conformity assessments, because (a) not all technical requirements can be validated by approaches focusing on the product and service itself, without taking into account measures taken during the development of the product or service; (b) AI-based services (like any other IT service) undergo continuous updates and thus any assessment that concentrates on a service only would be invalid after a short period of time, and (c) the current focus of the whitepaper on product/service conformity assessment completely ignores the way how such products and services are used.**

Ex-post mechanisms should take into account certifications as described above as evidence for the fulfillment of organizational duty of care and liability requirements. A scheme similar to GDPR, Art. 42/43 is appropriate, provided that it is not restricted to product/service conformity assessment for the reasons provided above.

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.

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? **[several selections possible]**

Cyber risks	**X**
Personal security risks	
Risks related to the loss of connectivity	
Mental health risks	

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

The experts of the German DIN's National Standardization Committee for AI do not believe that any other particular risk requires highlighting in this context.

Do you think that the safety legislative framework should consider new risk assessment procedures for products subject to important changes during their lifetime? **[Choose only 1 option]**

Yes	**X**
No	
No opinion	

Do you have any further considerations regarding risk assessment procedures?

[insert text: 500 characters maximum]

N/A

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? **[Choose only 1 option]**

Yes	**X**
No	
No opinion	

Do you have any further considerations regarding the question above?

[insert text: 500 characters maximum

N/A

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? **[Choose only 1 option]**

Yes, for all AI applications	
Yes, for specific AI applications	
No	
No opinion	**X**

[**If you chose "Yes, for specific AI applications**"] Please specify the AI applications:

[insert text]

N/A

Do you have any further considerations regarding the question above?

[insert text: 500 characters maximum]

N/A

Thank you for your contribution to this questionnaire.

[At the end of the Commission's online questionnaire there is a facility to upload a document, with file size limit of 1 MB.]