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.

Written feedback provided in other document formats, can be uploaded through the button made available at the end of the questionnaire.

The survey will remain open until 31 May 2020.

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?

Develop and strengthen academy and industry partnerships to guide the AI development towards industrial applications is very important for the waterborne sector as a whole both to further enhance design and shipbuilding practices and for application of AI when sailing at sea with potential benefits to the safety of navigation and increased efficiency of the maritime traffic with relevant reduced environmental impact.

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					X	

research						
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 should be considered?

The role of the public sector in fostering and creating a business environment for the development of common test cases in critical sectors and for the spin-off of starts-up should be further exploited and reinforced.

While probably in the naval domain, in the short term the development of AI technologies will still be driven by military applications (such as target identification, underwater signature analysis and voice control operation, AUV and ASV), shipbuilding and maritime industry as a whole is one of the business sector that could possibly benefit most from AI applications in both shipbuilding design and construction processes but also in the daily management of the ships at sea with enormous potential for increased efficiency and safety of navigation.

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				X		

industrial research						

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

The theoretical foundation of AI principles cannot certainly be underestimated; this work is normally best carried out by academia and research centers, however for the application cases, the partnership with industry is of the outmost importance.

EC programs such as Horizon 2020 and Horizon Europe are certainly creating a suitable environment to develop such collaboration also for the Waterborne sector. The AUTOSHIP project in Horizon2020 is first of this kind, creating a solid experience for future and more ambitious plan.

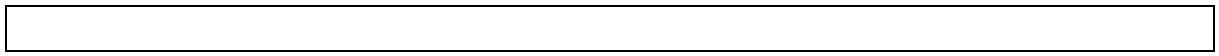
Focusing on Small and Medium Enterprises (SMEs)
The Commission will work with Member States to ensure that at least one digital innovation hub per Member State has a high degree of specialisation on AI.

In your opinion, how important are each of these tasks of the specialized 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?

At such early stage of AI development, raising awareness of the technology potential is certainly of relevance to the least to build a common understanding knowledge basis in the industry and society.



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

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

For maritime industrial applications the development and enforcement of an international regulatory framework is of essence. While AI applications are growing in shipyards design and building process (Industry 4.0, often couple with IoTs and other digital technologies), the AI role in autonomous shipping could develop in a paradigm shift of the industry. In that respect, without such set of rules developed at IMO level the deployment of autonomous surface ships would not be possible. The maritime industry is fully backing the process that has already started at IMO (Maritime Autonomous Surface Ship - MASS exercise), the European Commission (DG MOVE developing Guidelines for VTS services) and the EMSA that issued a first study on SAFEMASS.

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
- ○ Other
- ○ No opinion

Other, please specify

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
- X Other
- ○ No opinion

Other, please specify:

In the shipbuilding sector, again two distinct domain of potential application of AI technologies can be identified: the shipbuilding design and process and the use of AI systems at sea for navigation aid.

While for the first category of problems the requirements should follow and adhere to the relevant and applicable legislation for the safety and wellbeing of workers and to the efficiency of the technologies for a sustainable and profitable business, for the second category a fully fledge regulatory framework has to be established, as explained earlier, at international level.

Do you agree with the approach to determine "high-risk" AI applications proposed in Section 5.B of the White Paper?

- ○ Yes
- ○ No
- X Other
- ○ No opinion

Other, please specify:

The waterborne sector is highly regulated at both European and International level and respond to detailed standards, norms and international conventions where the presumption of conformity is not applied. Such regulations and rules are mostly developed by solid and quantitative risk-assessment principles.

Therefore for what the safety of products is concerned (and for the ship as a whole), each application of the AI in whatever element, system, system-of-systems has to be verified and approved under European and international rules. All such rules need therefore to be adapted to cater for AI applications.

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

Maritime Autonomous Surface Ships – MASS

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	

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)

- o Other special requirements in addition to those mentioned in the question above should be imposed (please specify)
- x 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.
- o Biometric identification systems should never be allowed in publicly accessible spaces
- o No opinion

Please specify your answer:

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?

- o Very much
- X Much
- o Rather not
- o Not at all
- o No opinion

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

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

- o Compliance of high-risk applications with the identified requirements should be self-assessed ex-ante (prior to putting the system on the market)
- o Compliance of high-risk applications should be assessed ex-ante by means of an external conformity assessment procedure
- o 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
- X A combination of ex-ante compliance and ex-post enforcement mechanisms
- o Other enforcement system
- o No opinion

Please specify any other enforcement system:

Risks connected to AI are only partially predictable: some risks will rise only ex-post and need to be properly addressed. The risks identified ex-post should be limited and addressed before they are acted.

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

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?

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

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

For applications of AI at sea during navigation, all regulations should be developed by strictly following risk-assessment procedure as already stipulated at international level in the IMO rule-making process.
For AI and robotics applications in shipbuilding, relevant legislation should be adapted to take into consideration the new potential risks raising from the application of these technologies.

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

- X Yes
- o No
- o No opinion

Do you have any further considerations regarding risk assessment procedures?

As explained, maritime industry has a solid and long track record of developing regulations based on risk-assessment frameworks. Overall these procedures are

grouped under the Formal Safety Assessment rule making process at the IMO. This is quantitative analysis carried out whenever a new set of rules need to be developed. It has some similarities with the Better Regulation of the EC, when coupled with a Cost Benefit Analysis.

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?

- X Yes
- ○ No
- ○ No opinion

Do you have any further considerations regarding the question above?

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
- X Yes, for specific AI applications
- ○ No
- ○ No opinion

Please specify the AI applications:

Applications having high autonomy levels, where the AI based system can take decisions unsupervised or supervised but without a strict control but also high-risk situations needs to be regulated.

For the waterborne sector liability regime is established at international level at the IMO, given the global character of maritime shipping. The liability rules should be updated internationally to allow for safe deployment of autonomous applications to ship sailing at sea.

Do you have any further considerations regarding the question above?

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.