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

OMG AI WHITE PAPER: POSITION STATEMENT

As with most technologies, AI technologies are neither inherently good nor inherently bad. The outcomes they produce in society are largely related to the method and context of their implementation. The question is *how can one create a situation where AI technologies can be developed in a way that maximises their potential for social good*?

In response to that question, we propose the following:

Decouple research from industry.

Pure research into AI should be supported directly by the EU through the establishment of a significant research infrastructure. We propose the European Lighthouse Research Centre as a "CERN-for-AI" in which researchers are funded to develop their fundamental ideas for the common good. Existing technical infrastructures such as the AI4EU project should be guaranteed, supported and expanded as part of this network. This should include connection with on-going developments in the research data space (e.g. European Open Science Cloud, DECODE). Overall, we welcome the focus on developing the 'ecosystem of excellence' particularly the commitment to developing international research networks and attracting international talent but we believe this ecosystem must be grounded in a philosophy that embraces fundamental research and a commitment to human centred technologies. This is something which can only be guaranteed at the scale of an institution such as the EU.

The introduction of AI technologies into the public sphere should be well regulated.

The EU has an important role to play in the regulation of AI-related technologies as these kinds of technologies have the potential to impact on public health, both physical and mental, as well as on a wide range of social conditions. AI tech has been shown to interact with the physiology and psychology of human subjects in ways that are comparable to drugs. They also have the potential to cause real world harm like a malfunctioning appliance. The White Paper makes significant reference to this type of danger but in making new regulatory recommendations the Commission focuses on high risk AI. We believe the Commission should widen their scope for new regulation to include AI that poses any level of risks to

humans or society. It is important that regulation is developed in parallel with research into AI technologies.

Enterprises that intend to introduce AI-based products into the public sphere should have to go through a rigorous 'independent' testing process similar to pharmaceutical companies or a company that has developed a new domestic appliance. This process could produce a report similar to an Environmental Impact Assessment and should include inputs from a variety of stakeholders including end-users and other AI subjects. It should include details of the proposed product's psychological and physiological effects on human subjects, its sustainability in terms of the resources it makes use of and a description of the human-guided processes they propose to put into place to monitor its effects on an ongoing basis. Some questions such a report should answer include:

- Is the system biased in potential illegal ways?
- Does the AI-based technology create an effect or result that is unattainable in any other way?
- Is it more efficient than existing non-AI-based approaches to the same problem? If not, then what is its purpose?

In short, we support the focus on the proposed regulatory requirements that may be required (see 5.D), but we reiterate the need to apply these across all AI.

The need to address the EU's underlying assumptions.

The EU has identified a number of key Societal Challenges. We feel that it is important to harness the positive potential of trustworthy and ethical AI to assist in addressing these challenges. Europe has the potential to lead the world in this regard. In order to meet these Societal Challenges fundamental changes to the EU's existing economic and social structures are required. Contemporary AI techniques make decisions based on historical data and as a result, run the risk of reproducing existing inequities. We feel that in order to harness AI's positive potential the EU needs to position it as part of a wider social, economic and environmental restructuring and reform. In this way, AI-based technologies can play a part in transitioning us from the context in which the White Paper was devised to a society founded on human-centred values. As such, the development of 'human centred AI' or an 'ecosystem of trust' is only possible within the wider context of trust in EU institutions and their commitment to human centred values.

The White Paper is framed by an implicit political position, one that positions the role of the EU (or Member States) primarily in an economic and managerial context of optimisation and efficiency. Public institutions are framed as a cost to the private world of individuals and private enterprise rather than as a social, constitutive and productive part of a shared society.

To illustrate this point, consider the White Paper's opening line: '[AI] will change our lives by…improving the efficiency of farming…' This statement presupposes that improving efficiency is the primary challenge, rather than the need to address issues of food security, habitat destruction, climate change, rural economy and social cohesion that have resulted from the industrialisation of agriculture since the Green Revolution.

Similarly, the commission's support for a regulatory scheme based solely on addressing high-risk AI in order to make development more efficient and straightforward for industry is yet another example of how the economic system and EU priorities are in conflict with the Human Centric approach to AI supported elsewhere.

In short, the White Paper fails to address the complexity of the existing social conditions into which AI-based tools are being inserted and suggests that challenges within these contexts are of a technical rather than political nature. The creation of the Lighthouse Research Centre referenced in the White Paper is one way in which the EU could mitigate this and innovate. We feel it is important this Centre would include world reference testing facilities, where claims about AI-based technologies and products can be evaluated through a mix of technical, academic and social ways. Recent history has exposed the limits of self-regulation in relation to algorithmic or AI-based products and the EU has had great success in the realm of regulation in relation to the introduction of GDPR. This centre, which would be a "CERN-for-AI", would develop both the tools and relevant complimentary regulatory, critical and educational frameworks required to ensure these technologies achieve the broadest social benefit.

Conclusion

Overall, the White Paper deals with a number of the concerns we have raised but does not go far enough to realise a human-centric vision for AI. We believe the EU should create a world reference AI research centre to guide the development of AI towards the widest possible societal benefit. This centre should support fundamental research in parallel with the development of appropriate regulatory, testing, educational and public engagement frameworks. The Lighthouse Research Centre should be committed to transdisciplinary research while serving as a place that reduces distance between domain experts, policy-makers, the public and the policy process. This approach will serve evidence-based policy-making and active research-enabled policy while enabling the EU to harness the positive potential of AI to meet current and future societal challenges.

To end positively, the White Paper is devised in such a manner that the non-expert can engage with its contents seamlessly and it is grounded in examples that make the consultation process very accessible to individuals with limited to no technical background. The White Paper comes at a crucial time and engages with important questions and we commend the Commission and relevant stakeholders for producing such a comprehensive and thought invoking document.

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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)?	Rating Importance on a scale of 1-5 (not important at all - very important) 3 = Neutral
Working with Member States	5
Focusing the efforts of research & innovation community	5
Skills	5
Focus on SMEs	3
Private Partnerships	3
Promoting the adoption of AI by the Public Sector	1

Are there other actions that should be considered?

Working with stakeholders to increase EU citizens' AI awareness and knowledge is key. We are less concerned with a focus on the private sector for reasons identified in our position statement. Building AI skills and education should take prominence over investment in the private sector. We are against the use of public procurement at Member State level to induce systematic change toward unregulated AI adoption e.g for reasons of bias.

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)?	Rating Importance on a scale of 1-5 (not important at all - very important) 3 = Neutral
Strengthen excellence in research	5
Establish world-reference testing facilities for AI	5
Promote the uptake of AI by business and the public sector	1
Increase the financing for start-ups innovating in AI	3
Develop skills for AI and adapt existing training programmes	4
Build up the European data space	5

Are there other areas that that should be considered?

AI technologies present increasing & insurmountable asymmetry between decision-makers & users. Creating & developing tools & literacy for individuals & civil society groups to address asymmetries is vital to mitigate/prevent AI harm. Establishing world-reference testing facilities & engaging with institutions (GOs/NGOs) & representative groups (Unions) is key. We must fund AI literacy initiatives (e.g. AI4EU) & rebalance the European data space to ensure people have more control of their data.

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)?	Rating Importance on a scale of 1-5 (not important at all - very important) 3 = Neutral
Support the establishment of a lighthouse research centre that is world class and able to attract the best minds	5
Network of existing AI research excellence centres	5
Set up a public-private partnership for industrial research	3

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

Include societal forums as part of robust impact assessment mechanisms (RIAM) in regulatory framework to involve citizens & leading experts who can detail applicability of AI to certain domains & its societal impact. Forums should be chief anchor of the Lighthouse Research Centre serving to reduce distance between domain experts, stated policy & implementation process. Provide significant resources to AI4EU to ensure it is positioned to collaborate or lead the type of societal forums envisaged.

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)?	Rating Importance on a scale of 1-5 (not important at all - very important) 3 = Neutral
Help to raise SME's awareness about potential benefits of AI	4
Provide access to testing and reference facilities	5
Promote knowledge transfer and support the development of AI expertise for SMEs	4
Support partnerships between SMEs, larger enterprises and academia around AI projects	3
Provide information about equity financing for AI startups	3

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

DIH could play a bigger role than currently envisaged as a venue to encourage cross-disciplinary work/fora. There is a need to highlight the potential drawbacks of AI for SMEs. DIH fora should elicit tacit knowledge about pros/cons of deployment in situational contexts & involve technical & non-technical stakeholders. This is crucial for sandboxing testing.

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)?	Rating Importance on a scale of 1-5 (not important at all - very important) 3 = Neutral
AI may endanger safety	5
AI may breach fundamental rights (such as human dignity, privacy, data protection, freedom of expression, workers' rights etc.)	5
The use of AI may lead to discriminatory outcomes	5
AI may take actions for which the rationale cannot be explained	5
AI may make it more difficult for persons having suffered harm to obtain compensation	5
AI is not always accurate	5

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

See OMG AI White Paper Position Statement

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
- ● **There is a need for a new legislation**
- ○ Other
- ○ No opinion

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

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

The use of AI in policing, provision of services, determination of risk pricing, hiring amongst other areas are by definition subject to historical bias and therefore reproduce multiple forms of existing inequality. We believe these should be banned by default within the EU and not simply monitored as High Risk AI as suggested in the White Paper.

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)?	Rating Importance on a scale of 1-5 (not important at all - very important) 3 = Neutral
The quality of training data sets	5
The keeping of records and data	5
Information on the purpose and the nature of AI systems	5
Robustness and accuracy of AI systems	5
Human oversight	5
Clear liability and safety rules	5

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)
- 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

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

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

We support a labelling system (LS). Data subjects must be informed about automated decision-making processes currently (GDPR). Due to this & our view it promotes public trust, a LS should be compulsory. Anything more specific than 'AI is used here' for mandatory LS will require technical understanding by system operators & subjects. Whilst desirable, some may suggest it's unworkable. DIH should therefore be involved in related capacity building across EU-States, which could make this possible.

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

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

Any new regulatory requirements should be applicable to AI in any form that pose a risk & may adversely affect parties or society. We also believe a robust impact assessment mechanism (RIAM) that reviews direct & unintended consequences of an AI application is required (see OMG AI WP Position Statement). In line with our view that ex-ante compliance and ex-post enforcement mechanisms are needed, RIAM must be reviewed periodically. The introduction of RIAM could be required by law under 5.D.c.

Section 3 – Safety and liability implications of AI, IoT & 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?

- Cyber risks
- 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?

No Comment provided

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

Do you have any further considerations regarding risk assessment procedures?

No Comment provided

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

Do you have any further considerations regarding the question above?

Our response is based on our reading of the White Paper and related documents.

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

Do you have any further considerations regarding the question above?

Our response is based on our reading of the White Paper and related documents.