The European Committee for Interoperable Systems' Submission on the European Commission's White Paper on Artificial Intelligence – a European approach to excellence and trust

The European Committee for Interoperable Systems ("ECIS") welcomes the European Commission's White Paper on Artificial Intelligence and believes that artificial intelligence ("AI") is an opportunity which the EU should embrace. The EU should be allowed to innovate and care should be taken in order to avoid overregulating AI in the EU. If innovation is allowed to thrive, AI can offer enormous benefits. ECIS will however, discuss below some of the potential issues which AI may bring about if care is not taken at an early stage. ECIS will focus specifically on competition issues associated with AI, and liability concerns regarding AI.

AI and Competition Law

AI is, broadly speaking, a good thing and is beneficial to consumers. To ensure that consumers benefit from AI, it is crucial that companies can freely compete and innovate in AI technologies. To maximise the potential of AI, it is essential to foster open standards to prevent vendor lock-in, and the consumer harm it leads to. Open standards in AI are crucial to promoting innovation, driving competition on the merits, creating consumer trust, and accelerating the scaling of interoperable AI solutions. Although companies should, under normal circumstances, not be permitted to exchange competitively sensitive information, in order to help spread the results of research into AI, collaborative research should be promoted. Therefore, companies should be encouraged and permitted under EU competition law to collaborate for the purposes of undertaking AI research activities.

Notwithstanding the benefits and potential of AI and collaborative research, AI may raise some competition law concerns, and possibly enable collusive conduct. It may be feasible for competitors in a market to program their AI algorithms in a way that causes them to engage in unlawful collusive conduct, for instance by determining that the most profitable way to respond to a price increase by a competitor would be to increase one's own price. AI might also be used to enable an undertaking to abuse their dominance such as where an AI machine determines how it can for instance maximise revenue by using a strategy of loyalty discounts, which can be unlawful in certain circumstances. Therefore, competition authorities should closely monitor AI developments to ensure that competitors are not unlawfully foreclosed from markets.

Access to data has a crucial role in ensuring companies can freely innovate in AI. Indeed, the best algorithms out there cannot achieve good results if they have insufficient data from which to learn and improve on their results. A particularly salient illustration of this is provided by online search services. Due to the particular machine-learning nature of a search engine, it is query scale – not technology – that is the primary driver of search engine profitability and competitiveness. Search algorithms learn from user queries and how users interact with search results, and the higher the number of queries (in particular the so-called "long tail" queries), the more relevant results the search engine will be able to show to users. This helps explain why barriers to entry can be so high in a search engine market where one company has an overwhelming advantage in scale of queries. If dominance is achieved via scale in data, a

company has an incentive to undertake conduct to preserve its position and prevent others from obtaining requisite scale to compete – and such conduct can be anticompetitive. This conduct may enable markets for AI to be foreclosed by dominant undertakings at an early stage. The European Commission should seek to ensure that in the EU, data does not act as a barrier to innovation in AI, preventing companies from undertaking research and benefitting European consumers.

Extra-contractual liability in relation to AI and the Internet of Things

Recent developments have led to AI systems providing remarkable levels of progress and value in different areas – from robotics in manufacturing and supply chain, to social networks and e-commerce, and systems that underpin society such as health diagnostics. As with any technology there is an initial period of hype, with excessive expectations and then a period of reality and measurable results – we are at the beginning of such a period right now. Our comments concern machine learning systems that are trained with data sets and algorithms, and not the so-called Artificial General Intelligence.

As with similar technological developments in the past, it is important that the industry is left free to develop, and that technology evolves in time according to the needs of businesses and consumers. Intervening at such an early stage would have a detrimental impact on the evolution of this technology, and should therefore be avoided. Nonetheless, there is a need for a strong ethical approach as to how AI should be applied, which should be properly set out at EU level (if not at global level). For this reason, ECIS supports the European Commission's White Paper on Artificial Intelligence in seeking to promote ethical guidelines and the ethical use of AI.

For the development of AI technology, we consider it essential that the algorithm used for AI purposes is transparent (in the sense of Recital 71 of the General Data Protection Regulation), which means that where there is unintended bias, this bias can be addressed. Moreover, it is appropriate that AI systems are subjected to extensive testing on the basis of appropriate data sets as such systems need to be "trained" to gain equivalence to human decision making. With regard to liability, it is important among other aspects, to consider the complex supply chain in AI services. Software algorithms and data sets which are used to train the software are important elements but other aspects need to be considered, such as the purpose of the AI application, and the sector specific norms that are in place. In addition, algorithms should be inspected at a technical level, so that the reasons for malfunctions can be established. Rules that impose liability on parties in the AI supply chain that do not have control over the final product should be avoided. In this respect, we support the Commission's decision not to take up this issue in its White Paper, maintaining its policy of taking a targeted approach to the issue of AI liability.

About ECIS

ECIS is an international non-profit association founded in 1989 that endeavours to promote a favourable environment for interoperable ICT solutions. It has actively represented its members regarding issues related to interoperability and competition before European, international and national fora, including the EU institutions and WIPO. ECIS' members include large and smaller information and communications technology hardware and software providers. The association strives to promote market conditions in the ICT sector that ensure there is vigorous competition on the merits and a diversity of consumer choice.