Consultation: Development of a National Strategy on Artificial Intelligence

CCPC Response – November 2019

CONSULTATION RESPONSE

NB. This response follows the format of the online response form:

1. Please provide your name or the name of the organisation you represent (if applicable) and your contact email address

Competition and Consumer Protection Commission (CCPC)

XXXXXXXXXX

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2. What do you consider to be issues of particular importance that a National Artificial Intelligence (AI) Strategy should address?

   Please select any or all that apply

   Education, skills and talent pipeline

   Research, development and innovation in AI   x

   Enterprise-level understanding, development and deployment of AI   x

   Public sector procurement, use and applications of AI

   Social and economic implications of AI   x

   AI for Good

   Standards, Governance and Regulatory Framework

   Ethics, human rights, diversity and inclusion in AI

   Data Protection and Privacy

   Trust and Cybersecurity

   Access to appropriate data sets for AI development   x

   Telecommunications and digital infrastructure

   AI literacy for the general public

   Other   x (Competition and Consumer Protection Issues)

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Iomaíocht agus
Cosaint Tomhaltóirí
Competition and
Consumer Protection
Commission

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3. Please explain here the choice you made in Question 2, if you wish

The Competition and Consumer Protection Commission (CCPC) welcomes the opportunity to respond to the consultation on the *Development of a National Strategy on Artificial Intelligence.* Under S.10(1) of the Competition and Consumer Protection Act (2014), the CCPC has a statutory function to promote competition and to promote and protect the interests and welfare of consumers. The CCPC response reflects this mandate.

In the CCPC's answer to question 2, we identified issues of particular importance that the National Strategy on AI should consider, which relate directly to the statutory remit of the CCPC. In this response, the CCPC will outline some of the implications of AI for consumer protection and competition, and elaborate further on our suggestions for issues that should be considered as the area, and the response of the State, develops. As is detailed below, the CCPC is active in seeking to understand the implications in this area for consumers and for competition, and we would welcome the opportunity to discuss further with BEI.

Implications for Consumers

Via e-commerce, consumers are increasingly steered towards certain purchase options. They may be purchase options that yield a higher margin of profit for the retailer, products the retailer has been paid to promote, or a platforms' own products. Consumers may be steered by individualised search results or homepage layouts, or different groups of consumers could be quoted different prices. These processes, which can constantly refresh and iteratively refine themselves online, are driven by algorithms and AI.

The CCPC is closely monitoring developments in this area individually and with other competition and consumer protection bodies, through international groups such as the European Commission's Consumer Protection Co-operation (CPC) and European Competition Network (ECN), as part of the wider analysis of digital markets. The CCPC also works closely with other Economic Regulators in Ireland in this regard.

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Although these algorithms are becoming more common, they may not always be apparent to the consumer, especially when they are being 'steered'. AI will have ongoing potential to affect pricing even more in the future. The National AI Strategy should in the CCPC's view establish a mechanism for understanding where harm could be occurring to consumers when they are purchasing products online.

The CCPC has noted the proposals in the European Commission's *New Deal for Consumers* (to be finally adopted) that there should be a specific information requirement *"to inform the consumer when the price is personalised based on automated decision – making."* [1] This reflects a wider recognition that e-commerce retailers should provide "*appropriate disclosures*" - clear information not only about the goods themselves but also the *"transaction conditions".* [2] This is intended to enable the consumer to make an informed decision about a transaction.

AI is becoming integral to retailers' interactions with consumers. While it may not be practical to provide full details of algorithms to consumers, the National AI Strategy should consider how transparent the workings of AI can be made to individual consumers, based on a principle of allowing consumers to make informed transactional decisions.

Competition Implications - Productivity

The development of AI has implications for competition in markets. AI governed algorithms, honed by machine learning, may act independently of human management. This raises possibilities such as tacit collusion, where algorithms in different companies independently decide how to maximise profits. Because this is an emerging area of technology, there are less definitive verdicts on the impact of algorithms on the stability of collusion. [3]

Explanations about how market players generate decisions may be significantly more difficult to communicate or investigate in the future. The recent joint report on

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[1] European Parliament, Texts Adopted (Provisional) P8_TA-PROV (2019)0399, 'Better Enforcement and Modernisation of EU Consumer Protection Rules'.

[2] OECD, 'Toolkit for Protecting Digital Consumers: A Resource for G20 Policy Makers'.

[3] Authorité de la concurrence and Bundeskartellamt, 'Algorithms and Competition.'

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Algorithms and Competition by the German and French Competition Authorities has outlined some of the practical challenges of investigating algorithms, particularly when more understanding is needed of functionality. Source code could be extensive and lack supporting documentation. [4] In these circumstances, other factors such as traceability, auditability and transparent communication take on more importance. [5] A national AI strategy should emphasise these principles, as part of a reflection of the broader question of ethics that should underpin AI standards.

Data is one of the *"key ingredients"* of Artificial Intelligence. [6] In e-commerce, online 'platform' firms have grown and maintained large user bases through network effects and focused targeting of consumers. As a result, they possess large datasets about the purchase, and other activities, of users.

As the power of AI increases, it will have more potential uses, and be a key tool in improving productivity. Productivity improvements at present are developed and led by what have been referred to as 'frontier firms', from a narrow base of highly productive sectors. A substantial number of other (traditionally SME) firms are 'lagging' in productivity terms, with the gap rising. [7] Given the imbalance in data holdings, this is a gap future development of AI could exacerbate.

These 'frontier firms' many of which are now well established multi-national companies, especially internet platforms, have access to unparalleled amounts of data. They are large intermediaries, with a view of all sides of a multi-sided market. They have unique insight into the activity of suppliers, consumers, and themselves. With the imbalance in market power, even SMEs selling to consumers on a platform may not have rights to data generated by sales of their products. Platforms may be using their AI capabilities to consistently steer users to their products, on their own platform, making it more difficult for companies making competing products. Challenger platforms face a paradox – they need to offer an attractive platform to attract personal and business users, but may need users and their data before they can develop and hone the AI that would support a sufficiently attractive platform.

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[4] Authorité de la concurrence and Bundeskartellamt, 'Algorithms and Competition.'

[5] European Commission, 'Independent High-Level Expert Group on Artificial Intelligence: Ethics Guidelines'.

[6] European Commission, 'Competition Policy for the Digital Era'.

[7] Department of Finance, *Patterns of Firm Level Productivity in Ireland: Technical Background Paper for the Economic Development Review Committee,* (2018).

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As AI becomes increasingly capable, it becomes more important for many businesses to have access to high quality data. The quality of AI algorithms is largely a function of the quality and volume of the data inputted to them. [8] If businesses have too little consumer data or resource to develop AI independently, they will be confined to securing software from external AI suppliers. But competition in the supply market may not operate fully. The necessity of ensuring company hardware and software is compatible with AI supplied from an external organisation will make switching more difficult and costly.

It is noteworthy that DG Comp is beginning to actively question the bargaining position of platform firms and to question whether this requires redress through competition policy. Whilst the development of the AI Strategy will not address these market power positions, we are of the view that the Strategy should be cognisant of the need to ensure the market power of those with access to large amounts of data is not further strengthened.

Data Availability – State Approach

One of the key inputs to the development of AI capability is data. Data is essential for AI as *"algorithms in these systems need large quantities of high quality data to perform properly and to develop further by learning."* With these dynamics, there may need to be other opportunities created for SMEs to obtain the data needed to create their own AI.

The European Data Portal, which harvests anonymised public sector information from public data portals across European countries, indicates that the development of AI systems requires a significant volume of data, variety of data and veracity of data. In many cases it will be difficult for SMEs to generate or harvest the data themselves.[9] Data silos, questions of data ownership and technological incompatibility are barriers to transfer even when there are participants willing to share it.[10]

To overcome this issue of SMEs not being able to generate or manipulate "big" data, the OECD states in its *Recommendation of the Council on Artificial Intelligence* that

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[8] European Commission, 'Competition Policy for the Digital Era'.
[9] European Data Portal, 'AI and Open Data: A Crucial Combination'.
[10] OECD, 'Data-driven Innovation for Growth and Well-Being: Interim Synthesis Report'.

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governments should *"consider public investment and encourage private investment in open datasets"*, and consider the use of 'data trusts' to ensure the safe and fair sharing of data.[11][12] This has been echoed by national AI strategies. In France, the prospect has been raised of designating certain categories of data as 'open data', with relevance to the efficient operation of markets and public policy.[13] The process of exchanging data between large organisations and SMEs has the greatest potential for value creation, subject to being implemented in a way that does not create opportunities for anti-competitive conduct.[14] We note that this links to some broad themes identified in the recent report and roadmap for SME and Entrepreneurship Policy in Ireland that was conducted by the OECD for BEI, such as incentivising larger firms to undertake Research and Development in partnership with SMEs and technology centres.[15]

To ensure a level playing field amongst enterprises developing AI capability, access to such data should be made available on fair, reasonable and non-discriminatory basis (FRAND), with the accompanying infrastructure and pilot areas that makes it simple and fast for SMEs to be involved and have access to data.[16] We believe that the AI Strategy should explore, through the stakeholder work that is already being done, forums to make rich datasets available to SMEs.

The CCPC recognises that AI technology can make many improvements for consumers and assist competition. It can improve products, processes and business models thanks to its ability to process huge amounts of data to improve efficiency.[17] However, in this section we have outlined new problems AI could create, in terms of the choice and control consumers have, and competition implications and the CCPC suggest that the impact of AI on consumers and competition should be considered on an ongoing basis. In addition, the interaction between data and AI software is key. Smaller businesses struggle to gain access to datasets to develop AI, while consumers do not have full transparency about what AI software is doing. The National AI Strategy should provide a framework for this interaction to be developed further across the economy.

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[11] OECD, 'Recommendation of the Council on Artificial Intelligence', (2019).
[12] Data Trusts are legal structures that provide for independent, third-party stewardship of data.
[13] Cedric Villani, 'For a Meaningful Artificial Intelligence: Towards A French and European Strategy.'
[14] German Federal Government, 'Artificial Intelligence Strategy'.
[15] OECD, 'A Road Map For SME And Entrepreneurship Policy In Ireland'.
[16] Finnish Ministry of Economic Affairs and Employment, 'Finland's Age of Artificial Intelligence'.
[17] Government of Ireland, 'Future Jobs Ireland 2019: Preparing Now for Tomorrow's Economy'.

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4. Please indicate the level to which you agree with the following statements

The CCPC has not included a response to these options, as many seem to be aimed at consumers and businesses at an individual level, and it would not add further detail to the response to do so.

	Strongly Disagree	Somewhat disagree	Neutral	Somewhat agree
I have a good understanding of what AI is				
AI will result in job losses				
AI will be beneficial				
Ireland is well prepared for adopting AI				
My business/organisation is well prepared for adopting AI				
I would trust the Government's use of AI in public services				
Decisions made by AI systems are fair and transparent				
I am worried about AI				
Ethical considerations of AI are important				
I have encountered AI				
I would be interested in learning more about AI				

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5. If you have any additional information related to AI research, development or policy, or recommendations for the use of AI that you believe the Government should consider, please provide details

N/A