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**SUBMISSION TO THE CMA IN
RELATION TO THE PROPOSED
AMAZON/IROBOT MERGER**
BY FOXGLOVE LEGAL COMMUNITY INTEREST COMPANY

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Introduction

We make this submission on behalf of Foxglove, the UK-based community interest company that fights to make the use of technology fair for everyone.¹ Foxglove investigates and challenges unfair practices by both governments and major incumbent technology companies that harm citizens, consumers, and workers – including excessive data harvesting, unsafe algorithmic management, and anti-competitive practices.

Foxglove has serious concerns about the recently announced acquisition by Amazon.com, Inc. (“Amazon”) of iRobot Corporation (“iRobot”), the home robotics firm and well-known founder of the robotic vacuum cleaner “Roomba” (the “Proposed Merger”).

The Proposed Merger is an obvious existential threat to other makers of robotic home vacuums but poses serious risks that go far beyond the Roomba itself. The Federal Trade Commission (FTC) has recently launched an investigation into the Proposed Merger,² and for the reasons set out in this submission, Foxglove urges the Competition and Markets Authority (CMA) to do the same to protect competition and consumers within the UK.

In short, the CMA should investigate this acquisition because it buttresses Amazon's strong position in and across fast growing consumer markets relating to smart home devices. Combining a rich new source of consumer “Home Knowledge” data and smart home technology with Amazon's other offerings, like the virtual assistant/smart speaker “Alexa”, smart speaker “Echo”, and “Ring” (smart doorbell), will create an almost unchallengeable smart home device and home knowledge juggernaut. Failing to block the Proposed Merger risks allowing Amazon to consolidate its chokehold in online retail, entrenching Amazon's extensive consumer data collection powers and damaging users' privacy, and further, risks disincentivising competition in multiple markets.

With its cascading, mutually-reinforcing significant market positions, Amazon functions like Google and Meta – it maintains its immense market power with self-reinforcing incumbency advantages.³ Amazon Chair Jeff Bezos has called this the ‘flywheel’, in which Amazon's entry into new markets is meant to produce efficiency and savings for consumers. A growing body of commentary suggests, however, that Amazon's concentrated market power – far from promoting innovation – dilutes it, stops new and innovative market entrants gaining a foothold, raises costs for third-party sellers and rivals, and raises consumer prices overall.⁴

Amazon also has a chequered history when it comes to acquisitions of potential competitors. Foxglove has grave concerns that the Proposed Merger is yet another example of Amazon's habit of “snuffing out” innovative entry and broader competition in existing and emerging markets.

With each acquisition, Amazon amasses more consumer data which it will be incentivised to foreclose from rivals to deter entry and increase its economies of scope and network effects. Any transaction which enhances the significant data advantages of an enterprise with such immense power should be

¹ Foxglove Legal Community Interest Company: www.foxglove.org.uk.

² CNN, “FTC probes Amazon's \$1.7 billion acquisition of Roomba maker iRobot”, 20 September 2022: <https://www.cnn.com/2022/09/20/tech/roomba-amazon-ftc-investigation/index.html>

³ Competition and Markets Authority, “Online platforms and digital advertising – Market study final report”, 1 July 2020, (Digital Platforms Final Report) at [7]: https://assets.publishing.service.gov.uk/media/5fa557668fa8f5788db46efc/Final_report_Digital_ALT_TEXT.pdf

⁴ The New York Times, “California files antitrust lawsuit against Amazon”, 14 September 2022: <https://www.nytimes.com/2022/09/14/technology/california-files-antitrust-lawsuit-against-amazon.html>

investigated with extreme scrutiny; as the CMA has correctly noted, a concentration of personal data amongst few providers risks a negative impact on consumer welfare, harming consumer choices and control in the long run.⁵

Of the 400 acquisitions made by the world's largest digital firms from 2008 to 2018, none were blocked by competition authorities, and there is now an increasing perception that some of those mergers should not actually have gone ahead.⁶ The CMA boldly made the first move away from this trend when it forced Meta to divest GIPHY. Foxglove therefore urges the CMA to similarly investigate the Proposed Merger in detail, and to take advantage of the fact it does not have to be bound by an analysis of static competition – but instead to view the Proposed Merger in the context of the future and dynamic competition across the smart home device and emerging market ecosystems that are at risk here.

The merging parties

iRobot is a powerful player in the market for robotic vacuum cleaners. With its vast resources, history of producing smart home devices and massive global platform, Amazon is a significant actual and potential competitor. The Proposed Merger is therefore yet another example of Amazon avoiding competition and achieving and maintaining dominance by acquiring competitors.

iRobot

iRobot has an estimated 43% market share in Europe, the Middle East and Africa (EMEA) and 53% market share worldwide (excluding China).⁷ It has over \$187 million recorded UK revenue through its subsidiary, iRobot UK Limited (iRobot UK).⁸ Known for pioneering the home robotic vacuum, "Roomba" in 2002, iRobot is a technology company that specialises in designing and building consumer robots, holding over 1,000 patents worldwide.⁹

In addition to Roomba, the company's product range includes robotic floor moppers (Braava), and air purification systems. Some of these products deploy sophisticated "Smart Mapping" technology which enables the robots to chart and "remember" your home, as well as using a front camera to identify objects. For example, users are advised that it is normal for a Roomba to leave a room while cleaning it and return later: "[it] is working to ensure it continues to understand the space it is in."¹⁰ Some products "remember" up to ten "floor plans and room names so users can customize cleaning jobs and direct the robot to clean specific rooms by voice".¹¹ iRobot devices already interface with both Amazon's and Google's "smart home" ecosystems through connecting to devices with Amazon's Alexa or Google Assistant.

⁵ Digital Platforms Final Report, at [5.328].

⁶ Beesley Lecture, "A new route forward for regulating digital markets", 28 October 2021: [Beesley Lecture: A new route forward for regulating digital markets - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/speeches/beesley-lecture-a-new-route-forward-for-regulating-digital-markets)

⁷ iRobot, "Introduction to iRobot Corp", March 2022: <https://investor.irobot.com/static-files/a6147f70-f50a-43d3-9161-9af57981ea0f>

⁸ iRobot UK Ltd, "Annual Report and Financial Statements for the Year Ended 31 December 2020": <https://find-and-update.company-information.service.gov.uk/company/10785183>

⁹ iRobot UK Ltd, "Annual Report and Financial Statements for the Year Ended 31 December 2020": <https://find-and-update.company-information.service.gov.uk/company/10785183>

¹⁰ iRobot, "Smart Maps for i3/i4/i5 Roombas", 27 January 2022: <https://homesupport.irobot.com/s/article/64103>

¹¹ iRobot, "New iRobot Roomba i7+ Robot Vacuum Learns a Home's Floor Plan and Empties Itself", 6 September 2018: <https://www.prnewswire.com/news-releases/new-irobot-roomba-i7-robot-vacuum-learns-a-homes-floor-plan-and-empties-itself-300707662.html>

Amazon

Amazon is one of the world's largest companies. The UK is its third largest market, generating approximately US\$31.9 billion in net sales in 2021 (roughly 10% of its US net sales).¹² Amazon's global net sales increased by US\$83 billion (17%) in 2020, to US\$469 billion in 2021. Amazon's operations include online retail and marketplace,¹³ manufacturer and retailer of consumer and home electronics, film and television production, book publishing, delivery and logistics,¹⁴ and groceries. It holds major market power in many of these sectors. Indeed, the CMA is currently investigating whether Amazon's practices in relation to third-party sellers on Amazon Marketplace constitutes an abuse of a dominant position.¹⁵

Amazon's "Alexa" system dominates the global "smart speaker" market with around 40% recorded market share worldwide in 2021.¹⁶ Earlier this year, Amazon announced plans to open a consumer robotics centre in India to support its robotics division, which launched its first consumer robot, Astro, in 2021.¹⁷ Astro combines Alexa with navigation technology to find its way around, and learn the layout of, its owners' home, with a publicly-stated focus on home monitoring – though it is not difficult to see the potential segue into home cleaning.¹⁸ In addition, Amazon's offering extends to smart home security devices, "Ring" and "Blink".

Concerns the Proposed Merger is a 'killer acquisition'

Amazon's "Astro" has struggled to gain a foothold in the smart devices market. Since its release in 2021, Astro remains available by invitation only and its reception has been described as "lacklustre".¹⁹

Rather than rise to the competition iRobot presents, Amazon is pursuing the well-known "copy-acquire-kill" acquisition strategy to swallow its most successful potential or dynamic competitor and its technology.²⁰ Amazon has a history of leveraging its dominance to buy or suppress potential rivals and gain access to valuable consumer insights and data, mostly in adjacent markets.²¹ The Proposed

¹² Amazon.com, Inc., Form 10-K, 4 February 2022 at 66: <https://ir.aboutamazon.com/sec-filings/default.aspx>

¹³ Amazon has roughly 407 million visits per month within the UK, with eBay as runner up with 298 million visits followed by Etsy with 36 million: Webretailer, "Online Marketplaces in the UK: Amazon and eBay dominate", updated 10 November 2022: <https://www.webretailer.com/marketplaces-worldwide/online-marketplaces-uk/>

¹⁴ Amazon Logistics is now the UK's second largest courier, with a market share of 15%. It is only second to Royal Mail, which has 35% of the market: Business Leader, "Another sector conquered: Amazon Logistics is now the UK's second largest courier", 10 February 2021: <https://www.businessleader.co.uk/another-sector-conquered-amazon-logistics-is-now-the-uks-second-largest-courier/>

¹⁵ Competition and Markets Authority, "CMA investigates Amazon over suspected anti-competitive practices", 6 July 2022: <https://www.gov.uk/government/news/cma-investigates-amazon-over-suspected-anti-competitive-practices>

¹⁶ Skyquest, "Global Smart Speaker Market", October 2022: <https://skyquestt.com/report/smart-speaker-market>

¹⁷ Amazon Robotics is the product of Amazon's acquisition of Kiva Systems in 2012; Brand Equity.com, "Amazon to develop software for its consumer robots in India", 30 May 2022: <https://brandequity.economictimes.indiatimes.com/news/business-of-brands/amazon-to-develop-software-for-its-consumer-robots-in-india/91892177>

¹⁸ Amazon, "How Amazon is enhancing Astro for the home and beyond", 28 September 2022: <https://www.aboutamazon.com/news/devices/amazon-astro-2022>

¹⁹ NPR, "Amazon is buying Roomba vacuum maker iRobot for \$1.7 billion", 5 August 2022: [Amazon is buying Roomba vacuum cleaner maker iRobot for \\$1.7 billion : NPR](https://www.npr.com/2022/08/05/amazon-is-buying-roomba-vacuum-cleaner-maker-irobot-for-1-7-billion/)

²⁰ Washington Post, "Congress has battled airlines, banks, tobacco and baseball. Now it's preparing to clash with Big Tech", 27 January 2020: <https://www.washingtonpost.com/technology/2020/07/27/congress-tech-hearing/>

²¹ Report of the Subcommittee on Antitrust, Commercial and Administrative Law of the Committee on the Judiciary, "Investigation of Competition in Digital Markets", 2020, (Investigation of Competition in Digital

Merger is no different. Over the past two decades Amazon has bought over 100 companies, in an increasingly aggressive, expansionist way:²²

- In 2009, Amazon acquired the online shoe retailer, Zappos, which an Amazon internal planning document had named as a "primary competitor" of Amazon's other online retail store, Endless.com.
- The following year, Amazon bought Quidsi, the parent of online diaper and baby care retailers, Diapers.com and Soap.com, which Amazon saw as its "largest and fastest growing competitor" in that space. Evidence in the US digital markets investigation reportedly showed that Amazon waged an aggressive price war against Diapers.com, causing the business to struggle within a few months, until Amazon snapped it up.
- In 2012, Amazon purchased warehouse robotics firm Kiva Systems for US\$775 million. Kiva Systems built robots to help retailers manage and fulfil orders. Kiva had committed to continue providing its technology to other vendors even after the merger, but Amazon then said that retailers seeking to use Kiva robots would need to use Amazon Services to fulfil orders in Amazon warehouses.²³
- In December 2017, Amazon acquired the maker of Blink home security cameras for US\$90 million and in February 2018, home security system company Ring, for US\$1.2 billion. Internal documents released during the US House Judiciary Committee probe into the tech industry explain that Amazon was "willing to pay for market position as it's hard to catch the leader".²⁴
- Also in 2017, Amazon acquired its grocery competitor Whole Foods for US\$13.7 billion – its largest acquisition to date. The Whole Foods acquisition expanded Amazon's brick-and-mortar footprint and its online grocery offering, and gave it access to a vast trove of consumer grocery shopping data.²⁵

The effects of this strategy are well-traversed. Every time Amazon snuffs out a rival, it adds to its goldmine of consumer data, shoring up Amazon's position in existing markets and fuelling its expansion into others, and building upon its ecosystem of products and services. Each time, there is potentially substantial harm to competition, potential innovation, and ultimately consumers.²⁶

The Proposed Merger

The Proposed Merger was announced on 5 August 2022, with Amazon set to acquire iRobot for US\$61 per share in an all-cash transaction valued at approximately US\$1.7 billion.

The parties filed notification and the required forms with the FTC and the Antitrust Division of the US Department of Justice on 19 August 2022. In September 2022, the FTC issued a second request

Markets) at 261-267:

https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf?utm_campaign=4493-519

²² Investigation of Competition in Digital Markets, at 261-263.

²³ PitchBook, "M&A flashback: Amazon announces \$775M Kiva Systems acquisition", 19 March 2018:

<https://pitchbook.com/news/articles/ma-flashback-amazon-announces-775m-kiva-systems-acquisition>

²⁴ The Verge, "Amazon bought Ring for market position, not technology, emails suggest", 30 July 2020:

<https://www.theverge.com/2020/7/30/21348483/amazon-jeff-bezos-alexa-ring-market-dominance-antitrust-hearing-congress>

²⁵ CNBC, "A year after Amazon announced its acquisition of Whole Foods, here's where we stand", 15 June 2018: <https://www.cnbc.com/2018/06/15/a-year-after-amazon-announced-whole-foods-deal-heres-where-we-stand.html>

²⁶ The role of strategic acquisitions in digital markets and the effects of the accumulation of power by a small number of firms is discussed in the Advice of the Digital Markets Taskforce: Competition and Markets Authority, "A new pro-competition regime for digital markets – Advice of the Digital Markets Taskforce", December 2020, (Digital Taskforce Advice):

https://assets.publishing.service.gov.uk/media/5f9e7567e90e07562f98286c/Digital_Taskforce_-_Advice.pdf

for information and documents.²⁷ This means that the Proposed Merger cannot complete until 30 days after iRobot and Amazon have substantially complied with the request.

Anti-monopoly and pro-privacy campaigners in the US, Members of Congress and Senators have publicly written to the FTC, voicing concerns with the Proposed Merger, and urging the FTC to block the deal, citing many of the same concerns that Foxglove has with the deal. We are not aware of any relevant merger filings in the UK or the EU.

The CMA's test for reference appears overwhelmingly likely to be satisfied

Although currently a voluntary merger regime in the UK, it seems highly likely that Amazon will be designated with strategic market status by the Digital Markets Unit and therefore the Proposed Merger would be required to be reported to the CMA to allow review. As noted by the CMA in the Advice of the Digital Markets Taskforce, the accumulation and strengthening of market power by a small number of digital firms has the potential to cause significant harm to consumers, innovation, the economy and wider society.²⁸

The duty to refer a merger arises under section 33 of the Enterprise Act 2002 when arrangements are in progress or contemplation which will (1) create a relevant merger situation that (2) may be expected to result in a substantial lessening of competition in any UK market. The CMA has discretion not to make a reference if it considers that the market is not of sufficient importance, the arrangement is not sufficiently likely to proceed or sufficiently advanced, or any customer benefits outweigh the competition concerns.

If the Proposed Merger is carried into effect, it will result in a relevant merger situation:

- According to public announcements, Amazon will acquire 100% of the shares in iRobot. If the deal closes, Amazon and iRobot will therefore cease to be distinct.
- The 2020 reported revenue for the UK subsidiary of iRobot Corporation, iRobot UK, exceeded \$187 million, comfortably exceeding the statutory "turnover test".

According to public sources, the Proposed Merger has not completed and is paused pending the FTC's investigation.

Potential market definition

Much like the CMA's approach to the Meta/Giphy merger, the Proposed Merger does not demand a bright-line market definition analysis in the context of static, existing competition between the merging parties.²⁹ Rather, the acquisition raises issues about potential and dynamic competition, and requires a forward-looking assessment of potential innovation and invention, in both existing and emerging markets and ecosystems.³⁰

As recognised by the CMA and the Competition Appeal Tribunal, dynamic competition can arise where businesses engage in a fluid competitive process which revolves around innovation potentially across more than one, connected market. In circumstances where the relevant products are "complex

²⁷ United States Securities and Exchange Commission, Form 8-K, iRobot Corporation (20 September 2022): <https://investor.irobot.com/static-files/1d2250a7-dd08-4c69-8a09-dd1bb1ca6322>

²⁸ Digital Taskforce Advice, at [2.7].

²⁹ Competition and Markets Authority, "Completed acquisition by Facebook, Inc (now Meta Platforms, Inc) or Giphy, Inc (Final report on the case remitted to the CMA by the Competition Appeal Tribunal)", 18 October 2022, (Meta/Giphy Final Report) at [5.5] :

https://assets.publishing.service.gov.uk/media/635017428fa8f53463dcb9f2/Final_Report_Meta.GIPHY.pdf

³⁰ Meta/Giphy Final Report, at [5.4].

and differentiated and include recent (and forthcoming) product developments", the CMA will focus on the broader competitive assessment rather than on static market definition.³¹ The Competition Appeal Tribunal has endorsed the CMA's approach – noting that although the starting point is the state of static competition in potentially relevant markets, dynamic competition is more fluid with the potential for constraints from firms in different markets.³²

We have identified several potential markets in and across which the Proposed Merger threatens competition:

- The growing market for robotic vacuum cleaners. iRobot has been a dominant player with its "Roomba" line of vacuum cleaners, holding over 40% EMEA market share and over 50% market share worldwide (excluding China).
- The market for smart home devices more generally, such as iRobot's "Aeris" air purifier.
- The emerging market for "Home Knowledge" data, or data in relation to the layout and features of customers' homes which is gathered by robotic vacuum cleaners and other smart home devices. For example, iRobot collects data on users' homes through its "Smart Mapping" technology and shares that data across iRobot devices.³³ Some Roomba models also have a camera which helps the robot to learn the layout of each room including placement of furniture and other obstacles. Triggers can also be set so that cleaning would begin only once the user (or their smartphone) has left the house. iRobot can also share this data with other integrated smart home devices in the "Internet of Things" ecosystem.
- Online retail – both in terms of online intermediation services (or the marketplace) and downstream retail.

Potential theories of harm

As noted in the CMA's Merger Assessment Guidelines, mergers involving a potential entrant can lessen competition in different ways. Such a merger may harm future competition by removing the threat of competition between the incumbent and potential rival.³⁴ A merger could also lead to a loss of dynamic competition by reducing incentives of dynamic competitors to independently enter or expand, or of existing players to try to mitigate against the potential impact of the dynamic competitor.³⁵ These concerns are interrelated as they both involve assessment of the constraints from potential entrants and the effect of the potential entrant on competition.³⁶ A vertical merger between firms active at different levels in the same industry could lead to foreclosure of current or potential rivals.³⁷

³¹ Meta/Giphy Final Report, at [5.4].

³² *Meta Platforms, Inc v Competition and Markets Authority* [2022] CAT 26, (Meta/Giphy Judgment) at [34]-[37], [66]-[67] and [100]-[102]: https://www.catribunal.org.uk/sites/default/files/2022-06/20220614_1429_Judgment_FINAL%20%5B2022%5D%20CAT%2026.pdf

³³ iRobot, "Smart Maps for i3/i4/i5 Roombas", 27 January 2022: <https://homesupport.irobot.com/s/article/64103>

³⁴ Competition and Markets Authority, "Merger Assessment Guidelines", 18 March 2021, (Merger Assessment Guidelines) at [5.2] and [5.13]: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1051823/MAGS_for_publication_2021_-__.pdf

³⁵ Merger Assessment Guidelines, at [5.1]-[5.3] and [5.19]; Meta/Giphy Judgment, at [35].

³⁶ Meta/Giphy Final Report, at [7.17].

³⁷ Merger Assessment Guidelines, at [7.2].

Horizontal effects on potential and/or dynamic competition

Amazon already has a leading (if not dominant) position in online retail.³⁸ In buying iRobot, it will gain a leading position in the manufacture of robotic vacuum cleaners and mops – a growing market which Amazon has already moved towards with its Astro product, and which had shown signs of becoming more competitive.³⁹ The Proposed Merger will remove this potential and dynamic competition from Amazon entirely and presents a threat to the viability of actual and potential competing robotic cleaners.

More broadly, the Proposed Merger raises grave concerns for competition in relation to smart home devices generally. As recently as late 2021, iRobot acquired the air purification company, Aerus Cleantec AG, which marked iRobot's first diversification beyond vacuum cleaners and mops.⁴⁰ In March 2022, iRobot appears to have explored expanding its range to include "smart speakers" and "home security" (see Figure 1 below).⁴¹ These are product markets in which Amazon is a strong (potentially dominant) market incumbent, with its Echo, Alexa, Blink and Ring offerings. In that context, iRobot's potential to innovate and enter or expand is even more important.⁴²

³⁸ Competition and Markets Authority, "CMA investigates Amazon over suspected anti-competitive practices", 6 July 2022: <https://www.gov.uk/government/news/cma-investigates-amazon-over-suspected-anti-competitive-practices>

³⁹ iRobot's estimated market share in EMEA has fallen from 50% in 2020 to 43% in 2021: iRobot, "iRobot Corporation Investor Presentation", August 2021: [iRobot Corporation Investor Presentation - August 2021 - Investors | IROBOT CORPORATION \(readkong.com\)](https://investor.irobot.com/static-files/a6147f70-f50a-43d3-9161-9af57981ea0f); iRobot, "Introduction to iRobot Corp.", March 2022: <https://investor.irobot.com/static-files/a6147f70-f50a-43d3-9161-9af57981ea0f>

⁴⁰ iRobot, "iRobot acquires air purification company, Aerus Cleantec AC", 18 November 2021: [iRobot Acquires Air Purification Company, Aerus Cleantec AG | iRobot Corporation](https://investor.irobot.com/static-files/a6147f70-f50a-43d3-9161-9af57981ea0f)

⁴¹ iRobot, "Introduction to iRobot Corp.", March 2022: <https://investor.irobot.com/static-files/a6147f70-f50a-43d3-9161-9af57981ea0f>

⁴² Merger Assessment Guidelines, at [4.12(a)] and [5.15]; Meta/Giphy Final Report, at [7.23]: "The impact of a potential entrant on competition is likely to be more significant when there are few strong existing competitive constraints...and where the merger party already has significant market power...In such circumstances, even small increments in the market power held by a firm with a strong position in the market may give rise to competition concerns."

Figure 1



Although we do not have any further detail on market opportunities and efforts that may be pursued by iRobot absent the Proposed Merger, the effects of the Proposed Merger on potential or future competition in this market clearly warrant further in-depth analysis by the CMA. The CMA has recognised that uncertainty about how dynamic competition might play out including through innovation efforts, does not prevent an assessment of the economic value of the dynamic process or of the competitive effects of a merger.⁴³ Accordingly, it is not necessary to identify specific overlaps at a certain point in time.⁴⁴

The Proposed Merger will also increase Amazon's market share in the emerging market for "Home Knowledge" data which will no doubt be used to reinforce Amazon's online retail and advertising businesses, including the interactive audio-ads on the Echo and Alexa devices which allow users to verbally add advertised items to their Amazon cart.⁴⁵ Amazon will also be able to use the data to support expansion of its range of smart home devices and to induce consumers to buy into a suite of Amazon products and services. Amazon is known for bundling its products and selling bundles at a steep discount which effectively "locks in" consumers, making it much more difficult for other firms to genuinely compete on the merits.⁴⁶

Further, Amazon has a history of pricing its smart home devices, such as Echo, aggressively low.⁴⁷ Applied in the context of the Proposed Merger, this kind of predatory pricing threatens to increase barriers to entry and ultimately raises potential monopoly concerns in the long term in the markets for robotic vacuum cleaners and smart home devices more generally.

⁴³ Merger Assessment Guidelines, at [5.20]; Meta/Giphy Final Report, at [7.24].

⁴⁴ Merger Assessment Guidelines, at [5.21].

⁴⁵ TechCrunch, "Alexa may answer your questions with ads soon", 14 September 2022:

<https://techcrunch.com/2022/09/14/alexa-answers-customer-questions-with-ads/#:~:text=In%202021%2C%20the%20company%20launched,brands%20to%20run%20promotions%20as>

⁴⁶ Competition in Digital Markets, at 312.

⁴⁷ Competition in Digital Markets, at 312.

Vertical effects through input foreclosure

Vertical mergers may give rise to competition concerns “when one of the merger firms had a degree of pre-existing market power with which it would be able to...foreclose its rivals”.⁴⁸ In the Merger Assessment Guidelines, the CMA identifies that input foreclosure may arise when one merging party supplies an input to competitors of the other merging party:⁴⁹

The concern with an input foreclosure theory of harm is that the merged entity may use its control of an important input to harm its downstream rivals’ competitiveness, for example by refusing to supply the input (total foreclosure) or by increasing the price or worsening the quality of the input supplied to them (partial foreclosure). This might then harm overall competition in the downstream market, to the detriment of customers. This may occur irrespective of whether the merger firms have a pre-existing commercial relationship.

Foreclosure analysis requires assessment of three cumulative considerations which ask whether the merged entity would have the ability to foreclose, the incentive to do so, and whether the effects would substantially lessen competition.⁵⁰ In the Meta/Giphy final report, the CMA identified three potential means of vertical foreclosure in the technology sector, each of which raises alarm bells in the context of the Proposed Merger:⁵¹

- worsening the terms of supply of inputs (eg, degrading the quality provided) to rivals;
- reprioritising innovation and development of the input towards the requirements of the merged entity’s own downstream product over those of its rivals; and
- “data foreclosure” by making access to the input conditional on the rivals providing data about their users or aggregate trends in a way that puts them at a competitive disadvantage.

In recognition of the increasing importance of data in competition policy and (in particular) the risks of foreclosure, the CMA acknowledged in a joint statement with the Information Commissioner’s Office:⁵²

[T]he most important factor from a competition standpoint is that market participants compete with one another on a level playing field. In circumstances where competitors in a digital market have significantly differential access to data, then competition ‘on the merits’ is likely to be undermined. As a result, consumers will have less choice, and will ultimately lose out through higher prices, lower quality, and reduced innovation.

This framework for analysis should apply to the Proposed Merger.

iRobot is a supplier of “Home Knowledge” data as an input into smart home devices. All Roomba and Braava robots are currently compatible with Amazon's Alexa, as well as Google Assistant. Users simply

⁴⁸ Merger Assessment Guidelines, at [7.7].

⁴⁹ Merger Assessment Guidelines, at [7.9].

⁵⁰ Meta/Giphy Final Report, at [8.7]

⁵¹ Meta/Giphy Final Report, at [8.10].

⁵² Competition and Markets Authority and Information Commissioner's Office, "Competition and data protection in digital markets: a joint statement between the CMA and the ICO", 19 May 2021, (CMA/ICO Joint Statement) at [32]:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/987358/joint_CMA_ICO_Public_statement_-_final_V2_180521.pdf

need to enable the iRobot "Home" skill for Alexa (or Google Assistant), and then Alexa can be used to control the relevant iRobot product as it moves throughout the user's home.⁵³ By acquiring iRobot, Amazon will gain unlimited access to and control of the "Home Knowledge" data of users worldwide that iRobot has accrued over two decades.

iRobot's current privacy policy states that it does not sell customer data to third parties, and that no data will be shared with third parties without the customer's knowledge or control.⁵⁴ Customers can, however, choose to share their data to enable voice control of the robot – eg, with Amazon to use voice control through Alexa.⁵⁵ iRobot has not commented on whether the policies will remain in their current form if the Proposed Merger is completed.⁵⁶ Either way, if Amazon buys iRobot, it will be able to partially or fully foreclose this data as an input to its current and potential rivals across the fast growing market for smart home devices, deter entry into the emerging "Home Knowledge" data market, induce new consumers to sign up to a bundle of Amazon products, and lock existing consumers in.⁵⁷

Foreclosure could take any or all the forms that the CMA identified in the Meta/Giphy analysis, including:⁵⁸

- Amazon could entirely refuse to provide the data to some or all its rivals.
- Amazon may partially foreclose the data through supplying rivals with less granular and/or less up-to-date data, which is therefore less useful.
- Amazon may also decide to partially or fully foreclose some or all of the "Home Knowledge" data from rivals and instead use it exclusively to its own advantage over other sellers and/or smart home device manufacturers. For example, Amazon could identify consumer preferences and use it for product research and to tailor offers, especially for its own products. In other words, if Amazon identifies through Roomba data that a user is not connected to a speaker, it may then target the user with ads only for Echo or Alexa, rather than rival ads.
- Amazon could engage in data foreclosure through requiring rivals to provide commercially valuable data of their operations in exchange for access to its "Home Knowledge" data.

As observed by the European Commission in its preliminary report on the "internet of things", Amazon (along with Google and Apple) occupies a unique position with its ecosystem combining voice

⁵³ Amazon, "iRobot Home": <https://www.amazon.com/iRobot-Home/dp/B06Y3PSHQ3>

⁵⁴ iRobot, "Privacy and data sharing common questions", 19 November 2021: <https://homesupport.irobot.com/s/article/964>

⁵⁵ Reuters, "Roomba vacuum maker iRobot betting big on the 'smart' home", 24 July 2017: <https://www.reuters.com/article/us-irobot-strategy-idUSKBN1A91A5>; iRobot, "Privacy and data sharing common questions", 19 November 2021: <https://homesupport.irobot.com/s/article/964>

⁵⁶ ZDNet, "Amazon acquires Roomba: iRobot CEO told us they will never sell your data", 9 August 2022: <https://www.zdnet.com/article/exclusive-roomba-ceo-responds-to-spying-story/>

⁵⁷ For example, the global market for smart speakers (such as Amazon's Alexa and Echo) – a key component in the "Home Knowledge" and smart home device space – is forecast to grow almost fourfold between 2022 and 2028: [Global Smart Speaker Market 2022: Global Industry Analysis by Top Manufacturers with Size, Share, Segments, Drivers and Challenges | Digital Journal](#)

⁵⁸ Meta/Giphy Final Report, at [8.12]. The foreclosure concerns are based on the assumption that any actions in relation to consumer data would always be in accordance with applicable data protection laws.

assistance and Amazon Marketplace – with every new smart device added, the ecosystem grows and gains unprecedented access to data.⁵⁹

The Proposed Merger is a clear example of this as it will increase Amazon's economy of scope in the "Home Knowledge" ecosystem by enabling it to combine that data with its smart home devices and existing databases, yielding potentially otherwise unattainable insights.⁶⁰ The costs of collecting this data, and the value inherent in aggregating it, can create incentives to prevent access to the data by rivals and lead to concentration.⁶¹ The costs to a rival of acquiring a dataset of a similar breadth and depth to that held by Amazon, would make it difficult for any potential competitor to attract customers and gain market share.⁶² We therefore agree with the Joint Statement that differential access to data can be a barrier to competition, and lead to foreclosure and market power issues.⁶³

In each case, and in addition to the competitive harms already identified across several markets, other online marketplaces may not be able to offer the same insights to sellers as Amazon. This will no doubt give Amazon's "flywheel" more momentum, bolstering its upstream dominance in online retail and tipping it further towards a monopoly, exacerbating existing network effects and raising the costs to consumers of switching outside Amazon's ecosystem.

Foreclosure concerns may be exacerbated through patents

iRobot holds over 1,000 patents worldwide which Colin Angle, iRobot's CEO, has described as a "huge part of [iRobot's] competitive moat" – noting that "it is getting really hard not to step on our intellectual property."⁶⁴ Indeed, it has been reported that iRobot has successfully enforced patents to slow down rivals, even forcing rivals out of the market.⁶⁵ Following a recent patent dispute, iRobot's rival, SharkNinja, said iRobot's patents in relation to mapping and targeted cleaning threaten to stifle innovation in the robotic cleaner market.⁶⁶

While iRobot's patents reflect iRobot's past research and development investment in these areas, they may also, individually or in combination, be essential for competing in the growing smart home device and "Home Knowledge" markets. With Amazon's vast resources and power, the ability and incentive to aggressively enforce these patents will only increase post-acquisition, which will reduce the likelihood of new entry and innovation.

The risk of input foreclosure through patents could be exacerbated if iRobot's patents have been deemed, or may in the future be deemed, Standard Essential Patents (SEPs) by standard-setting

⁵⁹ European Commission "Preliminary report for its sector inquiry into consumer internet of things", at [125]: https://competition-policy.ec.europa.eu/system/files/2021-06/internet_of_things_preliminary_report.pdf

⁶⁰ Reflecting the potential concerns identified in the CMA/ICO Joint Statement, at [26].

⁶¹ CMA/ICO Joint Statement, at [27].

⁶² Investigation of Competition in Digital Markets, at 260.

⁶³ CMA/ICO Joint Statement, at [28].

⁶⁴ iRobot Corporation, Annual Report 2021: <https://investor.irobot.com/static-files/cb7c1671-c1e1-459b-9601-85776264dff6>; Reuters, "Roomba vacuum maker iRobot betting big on the 'smart' home", 24 July 2017. <https://www.reuters.com/article/us-irobot-strategy-idUSKBN1A91A5>

⁶⁵ IP Watchdog, "Robot War at ITC Leads to Preliminary Win for iRobot", 10 October 2022: <https://ipwatchdog.com/2022/10/10/robot-war-itc-leads-preliminary-win-irobot/id=151928/>

⁶⁶ IP Watchdog, "Robot War at ITC Leads to Preliminary Win for iRobot", 10 October 2022: <https://ipwatchdog.com/2022/10/10/robot-war-itc-leads-preliminary-win-irobot/id=151928/>

organisations. A recent consultation by the Intellectual Property Office found that “most implementers said that SEP holders exercise market power”.⁶⁷

A substantial lessening of competition seems inevitable

It is not possible to fully imagine all the ways in which Amazon could strategically use "Home Knowledge" data gained through iRobot in combination with Amazon's vast resources, existing market position in smart home devices, and more broadly across online retail and advertising. What is clear, however, is that the Proposed Merger raises complex issues and clear risks to competition – even if the harm cannot be precisely defined or quantified now.

In short, the Proposed Merger risks a substantial reduction in the competitive pressure faced by Amazon in terms of price, quality, and other dimensions of competition. A substantial lessening of competition in these markets (and possibly others) seems inevitable. From a consumer perspective, the Proposed Merger risks creating barriers to multi-homing and switching (ie, for customers to switch out of Amazon's ecosystem of integrated smart home devices), and ultimately reduces consumer choice and control.

Similar concerns were identified in the market study into online platforms and digital advertising. There, the CMA found that Google and Facebook (now Meta) may enjoy “significant data advantages” that may have reached “such a scale that they are insurmountable without regulatory intervention.”⁶⁸ In other words, failure to act on earlier acquisitions has created almost unassailable data titans. The CMA suggested options to facilitate greater access to non-personal data between businesses and increased interoperability between services to help level the playing field and protect consumers from being "locked in" to any company's ecosystem.⁶⁹ In the EU, the Digital Markets Act introduces requirements for "gatekeeper" platforms intended to achieve similar goals for businesses and consumers alike. Investigation of the Proposed Merger presents an opportunity to prevent these issues from arising in the first place.

Behavioural commitments should not be entertained

The Proposed Merger is not an appropriate case for behavioural commitments. Behavioural commitments will not be able to get to the heart of the concerns of the Proposed Merger and Amazon's dominance: its sheer size and scale, its immense bargaining power, and control of an ecosystem that relies heavily on collection and use of consumer data. Contrary to the CMA's guidance on when behavioural remedies are generally used, the effects of the Proposed Merger will be long-lasting and potentially irreversible without further regulatory intervention. Beyond that, it is impossible to imagine precisely how the Proposed Merger will likely affect dynamic competition at some point in the future, such that behavioural commitments designed now cannot possibly be enough. Accordingly, it is submitted that structural intervention to prevent the Proposed Merger will be the most effective course.

Privacy and broader consumer protection concerns

In addition to the competition concerns, the Proposed Merger will enhance Amazon's surveillance powers and reach into customers' homes. As the CMA has recognised, the terms of service regarding user consumer data are an increasingly important dimension of competition in markets which involve collecting large amounts of data: "effective competition can enable stronger privacy protections, and

⁶⁷ Intellectual Property Office, [Consultation outcome – Standard Essential Patents and Innovation: Executive summary and next steps](#), updated 5 August 2022.

⁶⁸ CMA/ICO Joint Statement, at [33].

⁶⁹ Digital Platforms Final Report, at Chapter 8.

weak competition can undermine those protections."⁷⁰ Indeed, the Digital Regulation Cooperation Forum has come about as a result of the challenges presented by digital platforms, and seeks to (among other things) enhance alignment between regulation of competition and consumer privacy and information rights.

iRobot's Roomba and Braava use sensors to learn and map the layout of customers' homes. More recent releases also have cameras to learn the layout of and navigate around rooms. When it encounters an obstacle, the robot takes and transmits a photo to the user, who can then provide instructions to avoid or clean around the object. Technology updates include triggers that tell the cleaning to begin only once the user (or their smartphone) has left the house.⁷¹

Amazon's "Alexa" is known for collecting vast amounts of consumer data, including tracking whether lights are off inside the home, and the events in users' calendars.⁷² Alexa knows "what music you listen to, what you put on your shopping list, and what smart-home products you have", all based on what you asked of it.⁷³ Blink and Ring reflect advancements of Amazon's "in-home" strategy, in relation to which Mr Bezos noted in an internal email that "two senses matter – eyes and ears."⁷⁴

Not only will Amazon be able to see and listen to its users and their visitors through its existing devices, but it will gain access to detailed maps of users' homes and their features including the furniture and even where their pets are. With Alexa as the "ears", Ring and Blink as the "eyes" outside users' homes; buying the Roomba will bring Amazon's "eyes" inside the home. Data on the layout of customers' homes, and potentially images of their rooms, is plainly personal and private. Amazon's historical data practices are unlikely to lead to consumers (re)gaining control over this data.

Amazon already uses consumer data to feed its online retail business, and its digital advertising business is the third largest in the world, following behind Google and Meta.⁷⁵ Amazon launched interactive audio ads on its smart speaker devices last year, meaning users can buy something off Amazon simply by saying "Alexa, add to cart".⁷⁶ There can be no doubt that Amazon will seek to use the critical Home Knowledge data gained through iRobot to reinforce and expand Amazon's reach in this space. In the words of Mr Weissman, the president of the consumer rights advocacy group, Public Citizen, "The last thing [...] the world needs is Amazon vacuuming up even more of our personal information."⁷⁷

Conclusion

The Proposed Merger poses a substantial threat to competition within and across several markets and to consumer privacy. Amazon already watches our stoop and listens in our kitchens, all in the name of funnelling consumers towards buying more "stuff" on Amazon – the Proposed Merger will put Amazon inside our living rooms. It will deepen Amazon's retail and consumer data moats, which will

⁷⁰ CMA/ICO Joint Statement, at [51].

⁷¹ News Atlas, "Roomba i7 uses a camera to recognise objects – including pet waste", 10 September 2021: <https://newatlas.com/around-the-home/irobot-roomba-i7/>

⁷² Investigation of Competition in Digital Markets, at 306.

⁷³ The New York Times – Wirecutter Blog, "Amazon's Alexa never stops listening to you. Should you worry?" 8 August 2019: www.nytimes.com/wirecutter/blog/amazons-alexa-never-stops-listening-to-you/

⁷⁴ Investigation of Competition in Digital Markets, at 265 and 308.

⁷⁵ Insider, "Here's the latest on Amazon's ad business, which is \$31 billion and growing", 8 August 2022: www.businessinsider.com/inside-amazons-growing-ad-business-everything-we-know-2019-5?r=US&IR=T

⁷⁶ Tech Crunch, "Alexa may answer your questions with ads soon", 14 September 2012: <https://techcrunch.com/2012/09/14/alexa-answers-customer-questions-with-ads/#:~:text=In%202021%2C%20the%20company%20launched,brands%20to%20run%20promotions%20as>

⁷⁷ NPR, "Amazon is buying Roomba vacuum maker iRobot for \$1.7 billion", 5 August 2022: www.npr.org/2022/08/05/1115946395/amazon-buying-roomba-irobot

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no doubt bolster its vast ecosystem and dominance, and cause harm to consumers and competition in ways that cannot necessarily be fully imagined today.

Amazon has a long history of practices that warrant competition law scrutiny and Foxglove urges the CMA to investigate the Proposed Merger under the Enterprise Act to slow the "flywheel" and protect competition and consumer welfare.

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