ECOSIA: MOBILE BROWSERS AND CLOUD GAMING MARKET INVESTIGATIONS

(22nd JULY)

1. **Introduction**:
    a. Ecosia is a search engine that plants and protects trees. We dedicate 100% of our surplus revenue to the planet and create simple ways for people to be climate active every day. Collaborating with local communities, we have planted more than 200 million trees all over the world. Ecosia is based in Berlin and has approx 100 employees working in a range of teams from product, engineering, marketing, operations and tree planting. Ecosia is steward-owned, meaning that no one can ever sell Ecosia or take profits out of the company and that Ecosia's mission is locked into its business model. In 2014 Ecosia became Germany's first B-Corp.
    b. As an alternative search engine and browser that has consistently called for better and more comprehensive regulations of online search and browsing market, we welcome the CMA's commendable efforts throughout the Mobile Browsers and Cloud Gaming market investigations.
    c. We provide our response to WP1-3 in the following sections.

2. ***The nature of competition in the supply of mobile browsers and browser engines***
    a. Browsers are the main gateway for users to access the internet and the search engines that will deliver the results to their queries.
    b. However, gatekeepers such as Apple and Google present significant challenges for smaller search alternatives such as Ecosia in their ability to access users, innovate and improve the search and browser development and experience for consumers looking to use their services.
    c. Ecosia has browser applications on both Android and iOS platforms. As such we are acutely aware of the challenges and competitive dynamics within the mobile browser market.
    d. In our view the current competitive landscape in the mobile browser market is heavily skewed in favor of firms with dominant and entrenched market power who create significant and often insurmountable barriers for smaller competitors like ours - harming consumer choice and innovation at the same time.
    e. Ecosia has consistently and will continue to call on regulatory authorities, such as the CMA, to address these issues by holding the firms to account for anti competitive actions and promoting fair competition practices in the search and browser markets. Unlocking the innovative potential of mobile browser extensions and ensuring a level playing field in the browser market will benefit consumers, foster innovation, and enhance the overall health of the digital ecosystem.
    f. The competition in the supply of mobile browsers and browser engines is shaped by several critical factors:
        i. Dominance of gatekeepers: The mobile browser market is heavily dominated by gatekeepers such as Google and Apple, which control the default browsers (Chrome and Safari, respectively) on their operating systems. This dominance is reinforced by pre-installation and default settings, which significantly limit users' exposure to alternative browsers.
        ii. Restrictions on browser engines: On iOS, all browsers must use WebKit, Apple's browser engine, which limits differentiation and innovation among browsers.

Conversely, Android allows more flexibility with browser engines, but the dominance of Chrome, which uses Google's Blink engine, creates a challenging environment for competitors to gain traction.

iii. Pre-installation and default settings:

1. These practices are more prevalent and powerful on mobile devices than on desktops. Users are often locked into using the default browsers provided by the operating system, reducing the likelihood of them seeking out and installing alternative browsers.
2. While some jurisdictions have sought to remedy this such as the EU's Digital Markets Act, where Apple was forced to roll out a choice screen, a number of challenges related to the continued bundling / preferential treatment of its browser and search functionality within its own operating system persist. For example, when a user selects an alternative browser in the choice screen, Safari remains in the home dock. By choosing not to replace incumbent gatekeeper's application in the default position the user's new choice is not respected and while installation numbers increase, search numbers do not and defacto the choice screen does almost nothing to improve competition and market share.
3. Improved iterations of Apple's choice screen must ensure the user's alternative choice automatically replaces and removes Safari which has been pre-installed in the home dock.
4. In addition, Safari does not offer extensions on mobile or desktop, nor can you search engine be added without revenue share deals, which come at significant cost to business operations and ability to compete fairly for smaller competitors.
5. However, for many years, Ecosia had been asking Apple to be a secondary search option however we had no response. When in 2021 Apple did finally decide to add Ecosia as a secondary search option, a representative from Apple was briefly in contact with Ecosia, however this person has since left. For this reason, gatekeeper or SMS browsers must be allow users to change their default settings in their menu through different means, for example, if a user visits a competing service that service should be listed as an alternative service in an easier to access menu and competitors should be able to prompt users to use their service in the same way that incumbent gatekeepers currently do.
6. It is worth noting that, Ecosia has discussed choice screens extensively with the EU and CMA as well as other regulators around the world to address this issue. However, those currently being rolled out across EEA markets thanks to the EU's Digital Market's Act, have so far delivered mixed results and limited success due to the failure of gatekeepers to implement compliant choice screens.

iv. Limited access to browser extensions:

1. On desktop platforms, browser extensions play a vital role in enhancing functionality and allowing new entrants to accessing and growing user numbers and innovating at low cost.
2. However, despite the importance of browser extensions, in the EU the DMA failed to designate syndication which would have addressed a number of issues such as discrimination across different platforms and on mobile support for browser extensions on devices also remains extremely limited, particularly on iOS.

3. These restrictions hamper the ability of smaller browsers to compete by offering unique features and customizations that consumers may find appealing (see section 3).

v. Consumer harm:
   1. The restricted access to alternative browsers and alternative browser extensions harms consumers by limiting their choices and preventing them from accessing innovative features that could enhance their browsing experience.
   2. This includes features related to privacy, ad-blocking, and in our case numerous green features and innovations that we would like to be able to provide our users but are currently prevented from doing so, particularly on mobile.

vi. Innovation stifling and ability to compete:
   1. The barriers imposed by dominant incumbents such as Apple and Google therefore stifle innovation by making it difficult for smaller competitors to enter the market and test new ideas. Not only does this limit the diversity of available browsers in the market but smaller competitors, like Ecosia, face significant financial risks and burdens when trying to develop competitive mobile browser applications.
   2. The costs associated with creating and maintaining a browser app on both Android and iOS can be prohibitive, especially for non-profit or mission-driven organizations that have limited resources. We set out some recommendations in the next sections:

3. *The requirement for browsers operating on iOS devices to use Apple's WebKit browser engine*

a. Ecosia does not build browsers as its main product therefore our response to this section will be limited.
b. We would like to highlight however that in 2017 we were left with little choice but to do otherwise and so in November of that year built our first browser app on iOS after being effectively forced to do so in order to access users.
c. This was because there was no option to select Ecosia and for a long time we were not one of the options in Safari. Therefore, in order for people to be able to use us at all on mobile it was the only way to access users.
d. We provide the browser apps using the following engine on each OS:
   i. Ecosia iOS app store - (WebKit)
   ii. Ecosia Android play store - (Chromium / Blink)
   iii. Desktop browser (launching April 2024 for Windows and Mac, both with Chromium / Blink)
e. Ecosia built its app on the open source repository using WebKit as is required by Apple.
f. As all browser apps on iOS are built on the same rendering source, Ecosia is only able to build on this functionality minimally.
g. This prevents us from being able to innovate and provide our users with new, greener features as we are not able to effectively compete with Safari or develop a unique proposition or advantage e.g. improve the speed of the service, not tracking users, ad blocking or content filtering to improve the user experience blocking. Instead we are forced to limit our innovation to building on top of their functionality.

h. More generally, we would like to note that while using a non-WebKit engine would be our preference, even more beneficial to Ecosia would be if were able to operate one browser instead of two (e.g. either Chrome browser on iOS or one single browser), which would also save us 2x resources and allow us to add more features.
i. However, at this time we do not intend to use an alternative browser engine as none are ready to use and Ecosia does not have the resources necessary to develop an alternative engine for iOS.
j. In order for Ecosia to compete effectively with the Safari browser, there are a number of areas where we currently lack sufficient interoperability with iOS hardware and software features that would need to be opened up.
k. Most useful to us would be much of the information that exists within Safari or sits within the Cloud. Currently, even if a user were to grant us permission to access this key information we cannot currently import this data which means that the user goes back to Safari. These key areas for us include: the user key chain and passwords, bookmarks and browsing history. At this stage, there is no clear process or point of contact to communicate with Apple for requesting this information. Therefore we have not been able to request this information at this stage.
l. In summary, we would like to highlight the requirement for browsers operating on iOS devices to use Apple's WebKit browser engine is ineffective and problematic for several reasons including limiting innovation and product differentiation to benefit consumers; entrenching gatekeeper's such as Apple dominance and control of the browser market on iOS by mandating the use of WebKit.
m. By lifting the requirement for iOS browsers to use the WebKit engine, the CMA has the potential to foster a more dynamic, innovative, and competitive browser market, ultimately benefiting alternative and smaller competitors and end users including consumers.

4. ***Access to browser functionalities within the iOS and Android mobile ecosystems***
    a. *Choice screens:*
        i. As mentioned in previous sections, as a small search engine we have been largely focussed in recent years on topics such as browser and search engine choice screens thanks to the EU's Digital Markets Act (DMA).
        ii. Well-designed and fair choice screens are essential for ensuring users are able to access alternative browsers and their functions within iOS and Android mobile ecosystems.
        iii. For this reason it is paramount that the CMA ensures the swift re-introduction of an improved choice screen regime within the UK at the earliest possible opportunity - which Ecosia, together with DuckDuckGo and Which have called for in recent weeks.
        iv. Without this important mechanism, progress towards a democratic, competitive, innovative, and user-friendly digital environment in the iOS and Android mobile ecosystems will be limited as choice screens are crucial to ensuring that users are able to exercise their right to choose from wide range of perspectives and features that align with their values, be it related to the environment or privacy.

v. As of March 7th 2024, Ecosia's browser appears on both Google and Apple's choice screen for default browsers across the EU and EEA. Whilst the initial downloads of Ecosia increased in the immediate aftermath of the DMA's compliance day, at this stage we have not seen a significant increase in searches or a substantial improvement in market share.

vi. This is particularly the case with Apple's interpretation of the DMA, whereby despite a user selecting Ecosia, the *defacto* uninstallation process starts to materialize very soon after the user is presented with the choice screen.

vii. Ecosia has voiced its concern about to the EC, including, but not limited to the fact that:

1. users who have already selected an alternative choice are being targeted by the choice screen and are being pushed back to Safari
2. intentionally designed dark patterns make it hard for users to select and continue to use the default browser selected in the choice screen such as the non-removal of Safari from the home dock and replacement with default browser choice; and
3. there is an unnecessarily complicated multi-step download process with unknown break up rate.
4. the consumers' choice is not respected as the gatekeeper's preinstalled service is not replaced or delete by the user's new choice in the home dock

viii. At this stage, Ecosia has not received sufficient data or information from Apple regarding selection rates to be able to effectively assess Apple's roll out of the browser choice screen. However, we do see that the effect of the above and a number of other related issues is that as much as one third of the users who have decided for Ecosia do not even open our app once.

ix. Google's roll out of the choice screen provides comparatively better results as, the user's choice is respected and reflected in the default position and the design is significantly better.

x. We will continue to advocate for a competitive and iterative design process in order to ensure adjustments are made to promote competition and protect consumers including to respond to any compatibility or functionality issues reported for users after having switched to an alternative search or browser provider.

b. *Browser extensions in mobile ecosystems:*

i. Given the significant challenges users face in accessing alternative offerings and browser functionalities within the iOS and Android mobile ecosystems, we welcome the CMA's recognition of the broken mobile browser market, which barely exists when compared to the desktop market. This discrepancy arises from several factors: a) Desktop browsers can utilize any browser engine regardless of the operating system; b) Pre-installation and default settings more effectively lock users into gatekeeper ecosystems on mobile devices; c) Browser extensions have long been available on desktop, serving as critical infrastructure for new entrants to access the market, innovate their products, and do so at low cost.

ii. In contrast, limited access to browser extensions on iOS and Android devices harms both consumers and competitors, while protecting the interests of gatekeepers with entrenched market dominance such as Apple and Google.

iii. Smaller alternatives and potential new entrants into the mobile browser market miss out on low-cost market testing market, browser extension providers are restricted from reaching mobile consumers, and app developers lose an alternative distribution route.

iv. This stifles innovation and ultimately harms consumers, who in our case, miss out on innovative green features that enhance their browsing experience and improve their ability to be climate active—a notable fact, considering Google itself once relied on extensions to enter the desktop market

v. As mentioned above, Ecosia has also had to invest millions of pounds in building applications—funds that could have been used to improve our product. This investment might not have been necessary if mobile browser extensions were available.

vi. Finally, while extensions are needed to help switch settings, we also ultimately need a one click switch solution so the user is able to switch all search access points in a quick and easy way. This choice must be protected and respected by the gatekeeper.

vii. We urge the CMA to continue leading the call to action to unlock the innovative potential of mobile browser extensions. We stand ready to assist the CMA in designing and implementing necessary remedies.