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Anna MOSKAL D

Monash University / Jagiellonian University in Kraków annamariamoskal@gmail.com

MOVING TOWARDS A SUSTAINABLE DIGITAL FUTURE WITH UBER – A LEGITIMATE STEP **TOWARDS A GREENER ECONOMY OR MERELY GREENWASHING POLICY?**

ABSTRACT The main objective of this article is to assess whether Uber should be evaluated as a profit-driven corporation hiding its destructive practices under green--washing slogans, or as the pioneer of a new sustainable and environmentally friendly business model. Analysis of the Uber's business model leads to the conclusion that the company deliberately benefits from hiding under the umbrellaterm of a sharing economy to attract more users and to operate in an unregulated or not-fully regulated market. Furthermore, Uber's detrimental impact on the environment has been detailed in several European and American studies. Nevertheless, Uber has made steps away from a business model focused on service provision regardless of the environmental cost, and towards sustainably aware, low impact functioning. Uber's ambitious Green Recovery plan of 2020 aims to start a green revolution in the ride-sharing market; however, it is questionable whether Uber will meet its own ambitious milestones.

> Keywords: sustainable development, sharing economy, collaborative economy, Uber, ride-sharing, green economy

INTRODUCTION

In today's globalized and digitalized world, the new business models based on on--demand, peer-to-peer platforms for products and services are rapidly growing in popularity. Their emergence and growth occurred in a moment of human history when people seemed to realize that in order to secure limited natural resources for future generations, sustainable development goals have to be met and effective steps have to be imminently taken. One of the most promising ways to achieve this involves successfully transitioning from a linear economy (based on the 'take, make and dispose' approach) to a circular economy (grounded in the 'make, use and recycle' concept). A component of achieving a more circular economy is through the use of principles relating to the sharing economy, whereby excess individual resources (i.e. tools, space, time, skills) are utilized by many people.¹ Companies which have implemented sharing economy principles are frequently digital, peer-to-peer platforms for products and services that connect excess capacity with demand or offer across-over-ownership by enabling renting, lending, reselling, or swapping.² The assessment of the social, economic, and environmental impacts of implementing the sharing economy is complex and generates a great deal of heated debate in both academic and media discourse. While the supporters of the sharing economy believe that it is a promising opportunity for individual activism and environmental progress, opponents denounce it as a misleading mystification of a disruptive and unjustly idealized 'low cost' access economy.³

Uber has managed to establish the status of one of the most common examples of sharing economy over the last decade, both in media and academic discourse. Given its domination of the ride-sharing market and its socio-economic impact on the business ecosystem, the term 'Uberization' has surfaced to describe the practice of facilitating transactions between clients and service providers through digitalized platforms, specifically mobile applications. This new buzzword indicates a fast-growing trend of moving from a production-based economy to a service-based economy. Uberization is getting more and more recognition and is becoming a popular *modus operandi* of many companies around the globe; therefore, analysing the impact of Uber's business model on society, economy, and the environment constitutes an excellent case study for a broader trend and problems related to it.

The main objective of this article is to evaluate whether Uber should be seen as a profitdriven corporation, which hides its disruptive business model under green-washing

¹ A. Stemler, "The Myth of the Sharing Economy and Its Implications for Regulating Innovation", *Emory Law Journal* 2017, vol. 67, no. 2, p. 209, at https://scholarlycommons.law.emory.edu/elj/vol67/iss2/1, 25 September 2022.

² M. Möhlmann, A. Geissinger, "Trust in the Sharing Economy. Platform-Mediated Peer Trust", in N.M. Davidson, M. Finck, J.J. Infranca (eds), *The Cambridge Handbook of the Law of the Sharing Economy*, Cambridge 2018, p. 27.

³ A. Acquier, V. Carbone, "Sharing Economy and Social Innovation", in N.M. Davidson, M. Finck, J.J. Infranca (eds), *The Cambridge Handbook...*, p. 51.

slogans, or as a pioneer in transforming commercial business models into sustainable and environmentally friendly companies. In order to address this complex problem, the article has been divided into following four key sections: section 1 illustrates Uber's successful development history, section 2 explains whether Uber truly enforces the principles of sharing economy, section 3 presents the most recent European and American research studies on Uber's impact on the environment, and section 4 reports the Uber's newest ambitious 'Green Recovery' plan to become a fully zero-emission platform by 2040.

1. FROM UBERCAP TO UBERIZATION

Uber Technologies Inc., commonly known as Uber, can be described as one of the most successful and controversial startup companies in the world. Even its brand name, which is derived from the German word Über meaning 'above all the rest', corresponds to the company's questionable, yet extremely fruitful, dominating policy. Over the last 12 years of its existence, the San-Francisco based company founded in 2009 by Garrett Camp, Oscar Salazar and Travis Kalanick has gained massive worldwide popularity and completely revolutionized modern transportation. In addition, Uber has expanded its services to food delivery, couriers, freight transportation, as well as electric bicycle and motorized scooter rental. With the exception of China, the company can also boast that they perform the largest global food delivery operations in the world.⁴ Today, Uber, with its 93 million active users⁵ and technology available in more than 10,000 cities in over 70 countries⁶, constitutes a leading global company in the ridesharing market. Uber's innovative technology, explosive development, pioneering approach, and ingeniously used networking effects made the company the most valuable startup in the world. According to Uber's release for the second quarter of 2021, the company achieved an impressive net income of \$1.1 billion, and registered 1.5 billion trips conducted by 3.5 million Uber drivers.⁷

According to Uber's official website, the company's fascinating origin story commences during a Parisian snowstorm in December 2008 where two entrepreneurs, Travis Kalanick and Garrett Camp, struggled with ordering a taxi and came up with the idea of timeshare transport service that could be ordered via phone.⁸ However, this sto-

⁴ Uber, "2021 Investor Presentation", 10 February 2021, at https://s23.q4cdn.com/407969754/files/ doc_financials/2020/q4/InvestorPresentation2021.pdf, 25 September 2022.

⁵ B. Dean, "Uber Statistics 2021: How Many People Ride with Uber?", 23 March 2021, at https://back linko.com/uber-users#key-uber-statistics, 25 September 2022.

⁶ Uber, "2020 Annual Report", p. 8, at https://s23.q4cdn.com/407969754/files/doc_financials/2021/ ar/FINAL-Typeset-Annual-Report.pdf, 25 September 2022.

⁷ Uber Investor, "Uber Announces Results for Second Quarter 2021", 4 August 2021, at https://inves tor.uber.com/news-events/news/press-release-details/2021/Uber-Announces-Results-for-Second-Quarter-2021/, 25 September 2022.

⁸ Uber, "The History of Uber – Uber's Timeline", *Uber Newsroom*, at https://www.uber.com/en-GB/ newsroom/history/, 25 September 2022.

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ry is a rather a catchy 'after-the-fact-creation myth', given that the idea of an on-demand car service had already been mentioned by Camp before that famous night, and is believed to be a result of his own frustration about the difficulty of getting a cab in San Francisco.⁹ Regardless of who conceived the original idea, the entrepreneurs worked together on developing an innovative application which enabled users to hail a car from their smartphones. The app was launched in March 2009 as UberCab and began to operate immediately. The greatest strengths of this new method of transportation were: lower prices compared to regular taxis, and the route to the destination being displayed prior to commencing the ride. Thanks to these two factors, as well as the application's overall simplicity and usability, the company grew in popularity and quickly became one of the top-hiring companies in the United States. The explosive growth and remarkable hiring spree helped the company obtain its first major funding, an impressive sum of \$1.25 million, in October 2009.¹⁰

In December 2011, the company, now rebranded to Uber, expanded internationally starting with Paris. Within next few years, Uber not only increased its operation field, but also significantly broadened the scope of its services to UberX in 2012, UberKITTENS in 2013, UberPOOL and UberRUSH in 2014, and UberCARGO and UberEATS in 2015.¹¹ In mid-2015, Uber was valued at \$51 billion after its funding rounds, and reached the status of the most valuable start-up in the world.¹² In September 2016, the Uber's first self-driving pilot programme was launched in Pittsburgh¹³, and by the end of 2017, Uber's fleet of self-driving vehicles reached 2 million autonomous miles, driving an average of 80,000 miles per week.¹⁴ In mid-June 2018, Uber registered 10 billion trips and signed a partnership contract with Lime to expand its services with the addition of electric scooters.¹⁵ What is perhaps most interesting and noteworthy is the fact that in September 2018, Uber set up the 'Fund for Sustainable Mobility', with a view to increase the sustainability of their business model. Through this fund came policies such as congestion pricing and better infrastructure for e-bikes.¹⁶

- ¹³ Uber, "The History...".
- ¹⁴ Ibid.

¹⁶ Uber, "The History...".

⁹ K.M. Wyman, "The Novelty of TNC Regulation", in N.M. Davidson, M. Finck, J.J. Infranca (eds), *The Cambridge Handbook...*, p. 131.

¹⁰ N. Mcalone, "How Uber Became the Most Valuable Startup in the World", at https://www.inc.com/ business-insider/how-uber-became-the-most-valuable-startup-in-the-world.html, 25 September 2022.

¹¹ D. Blystone, "The Story of Uber", *Investopedia*, 19 September 2021, at https://www.investopedia. com/articles/personal-finance/111015/story-uber.asp#citation-1, 25 September 2022.

¹² S.A. O'Brien, "Uber Is the Most Valuable Startup in the World, CNN Business, 31 July 2015, at https://money.cnn.com/2015/07/31/technology/uber-50-billion-valuation/index.html, 25 September 2022.

¹⁵ A.J. Hawkins, "Uber Is Teaming Up with Lime to Add Electric Scooters to Its App", *The Verge*, 9 July 2018, at https://www.theverge.com/2018/7/9/17548848/uber-investment-lime-scooter-alphabet, 25 September 2022.

On 10 May 2019, Uber officially went public on the New York Stock Exchange under the ticker symbol 'UBER.', with an initial share price of \$45, and a market capitalization of \$75.5 billion.¹⁷ It made one of the largest initial-public-offering prices in American history.¹⁸ Since then, Uber has completed several high-profile acquisitions of companies such as Jump Bikes, Postmates, Otto, Geometric Intelligence, and Drizly.¹⁹ In 2020, as with many other commercial transport companies, Uber had to face the threat posed by the COVID-19 pandemic. Even though Uber's capabilities in local commerce dramatically declined, its delivery business more than doubled over the year.²⁰ This clearly demonstrates the company's resilience and ability to adapt even during a horrendous time of unprecedented global socio-economic crisis.

2. PROMISING A SHARING ECONOMY IDEA AND PROVIDING DISAPPOINTING GREENWASHING PRACTICES

Although many companies use their financial resources to transform their commercial activity into sharing economy business models, others put up a facade of sustainability while continuing to perform activities that have a detrimental impact on the environment. Given the public's general positive associations with the concept of sharing and the difficulty in identifying the scope and impact of implementing a sharing economy, many companies openly claim, or subtly indicate, that their business models are part of a sharing economy. By hiding under the umbrella-term of a sharing economy, corporations can operate in a not-fully, or unregulated, market undisturbed, and subsequently reach their full potential without limiting legal or fiscal restrictions. Furthermore, such companies tend to attract more aware users (especially younger generations), and by using greenwashing slogans and networking effects they can successfully outperform their competitors. According to Nielson's Global Corporate Sustainability Report, 66% of consumers would spend more on products and services that come from companies who are committed to positive social and environmental impacts.²¹ Hence, there are undoubtedly significant advantages in promoting a business as environmentallyfriendly and socially inclusive, and Uber is definitely aware of this fact.

¹⁷ P. Leskin, "Uber Is Going Public in One of the Biggest IPOs of All Time as All Its Execs Swarm the NYSE", *Business Insider*, 10 May 2019, at https://www.businessinsider.com/uber-goes-public-in-ipoon-new-york-stock-exchange-photos-2019-5?IR=T, 25 September 2022.

¹⁸ Ibid.

¹⁹ D. Blystone, "The Story..."; Ch. Goswami, A. Banerjee, "Uber – How This Ride-Hailing Giant Made It To The Top!", *Startup Talky*, 9 August 2022, at https://startuptalky.com/uber-story/, 25 September 2022.

²⁰ Uber Investor, "Uber Announces Results for Fourth Quarter and Full Year 2020", 10 February 2021, at https://investor.uber.com/news-events/news/press-release-details/2021/Uber-Announces-Res ults-for-Fourth-Quarter-and-Full-Year-2020/default.aspx, 25 September 2022.

²¹ Nielsen Global Responsibility Report, "The Sustainability Imperative. New Insights on Consumer Expectations", October 2015, p. 8, at https://www.nielsen.com/wp-content/uploads/sites/3/2019/04/Global20Sustainability20Report_October202015.pdf, 25 September 2022.

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Since the commencement of its functioning on the market, Uber has been frequently accused of using greenwashing strategies and marketing techniques in order to create a warped image of its activity and business model. For instance, in order to distract people from its multi-billion-dollar valuations and rapidly growing profits, Uber deliberately employs powerful de minimis rhetoric which minimises the magnitude of Uber's peer-to-peer transactions.²² This strategy is commonly used by many gigantic companies which claim to be a part of the sharing economy – Uber advertises itself as Everyone's private driver, Lyft calls itself Your friend with a car, and Airbnb states that its greatest achievements aren't monumental... They're the small, meaningful connections that happen between us every day.²³ By presenting their business models as the smallscale behaviours of individual users, digital platforms deflect the focus off their participation in the transaction and minimize their own responsibility for the cumulative negative impacts of the activity. Another example of strategic parsing of words, which proves that Uber obfuscates its true characteristics and present itself in a favorable light, is the fact that the company tends to use the term 'driver partner' instead of just 'driver' in many of their publications.²⁴ Such phrasing contributes to building an image of drivers as independent contractors and indicates a socially inclusive character of the company. This artfully used rhetoric goes even further in terms of the company's impact on the environment. According to the official webpage of Uber, it is *constantly trying* to make the world a better place by reducing the need to drive or own a car, minimizing parked cars in the city and reducing tree loss.²⁵

Over the last decade Uber has managed to establish the status of one of the most commonly cited examples of sharing economy in both media and academic discourse. The question is whether it really embodies the ideals of the sharing economy, i.e. whether it uses an excess capacity and provides sustainable solutions. After analysing the literature and Uber's business models the author reaches the conclusion that there are salient criticisms of this idea. This is because Uber generally does not use the surplus of drivers' unused or underused capacity of time and space. When users order an Uber, most of the time they do not share their trip with a person who happens to take the same road at the same time and wants to share their car space, but rather they get into the taxi-like vehicle which is driven by a person who aims to earn money from taking their passengers from point A to point B. Instead of using their underutilized driving activities, Uber drivers frequently work full time for the platform. A survey conducted in December 2014, demonstrated that almost 40% of Uber's partner drivers had no other job before joining ride-sharing companies²⁶ and for 20%, Uber is their only

²² K. Zale, "Scale and the Sharing Economy", in N.M. Davidson, M. Finck, J.J. Infranca (eds), *The Cambridge Handbook...*, p. 42.

²³ Ibid.

²⁴ A. Stemler, "The Myth...", p. 208.

²⁵ Uchil, "Adopt A Plant This World Environment Day", *Uber Newsroom*, 1 June 2016, at https://www.uber.com/en-IN/newsroom/wedubergreen/, 25 September 2022.

²⁶ J.V. Hall, A.B. Kruger, "An Analysis of the Labor Market for Uber's Driver-Partners in the United States", *NBER Working Paper*, no. 22843, November 2016, p. 10.

source of personal income.²⁷ When asked about their motivations to join Uber, drivers provided mostly economic motives rather than environmental goals. The most common answers included motivations *to earn more income to better support myself or my family* (91%); *to be my own boss and set my own schedule* (87%); *to have more flexibility in my schedule and balance my work with my life and family* (85%); *to help maintain a steady income because other sources of income are unstable/unpredictable* (74%).²⁸ Additionally, the interactions between drivers and users are limited by the platform itself, which uses algorithms to set prices and the most optimal routes. Hence, Uber does not facilitate gratuitous sharing of goods and service with a view to use an excess capacity. It places profit maximization above the core values of the sharing economy such as collaboration, openness, and sources reusage. Due to these reasons, Uber hardly qualifies as a representative example of sharing economy business model. This also explains why Uber is referred to by some as a 'pseudo-sharing economy' and is accused of using greenwashing empty slogans to distort its real image and impact on the environment.

Nevertheless, the above-mentioned reflections refer only to UberX which is the most basic transportation service offered by Uber. It must be highlighted that, since the beginning of its existence, Uber has been regularly expanding its scope of services and many of them seem to be introduced with a view to reduce the harmful impact of the company on the environment. For instance, UberPOOL, introduced in 2014, enable users to split the ride and cost with other users who take a similar route. Hence, empty seats in the car are filled up and carbon emissions are reduced by sharing rides. The more recent example is UberGreen which allows Uber customers to request lowemission electric cars, including hybrid electric vehicles, plug-in hybrids, and true electric vehicles. With regards to Uber Eats, in 2019 the company decided to take a step towards the reduction of plastic waste by removing plastic utensils, straws and other additional items, only making them available by request and with an additional fee.²⁹ Moreover, Uber teamed up with their partner restaurants to increase the use of recyclable packaging.³⁰ Given Uber's size and its negative impacts on environment these are rather small steps, however, they are certainly taken in the right direction. Additionally, as it was highlighted in previous section, Uber introduced the 'Fund for Sustainable Mobility' and pledged \$10 million to funding initiatives devoted to minimizing traffic congestion and advertising public transportation.

Taking all these points into consideration, the author has no doubts that, overall, Uber does not operate in the spirit of a sharing economy, but deliberately benefits from presenting as though it does, in order to operate undisturbedly in an unregulated or not-fully regulated market. In addition, Uber is accused of using greenwashing

²⁷ Ibid., p. 11.

²⁸ Ibid.

²⁹ E. Boman, "Making Food Delivery More Accessible & Sustainable", *Uber Newsroom*, 26 September 2019, at https://www.uber.com/en-AU/newsroom/making-food-delivery-more-accessible-sustain able/, 25 September 2022.

³⁰ UberEats, "Sustainability", at https://ubereats.enviropack.org.uk/sustainability, 25 September 2022.

strategies and marketing techniques to attract more users. However, it must be noted that Uber has taken some action, such as the above-mentioned steps, towards greening their business model. Whether these actions are enough to balance the negative impacts of the company's activity on the environment remains unknown due to insufficient information. For instance, information such as the amount ecofriendly options, such as UberPOOL and UberGreen, are utilized as a percentage of total Uber service delivery has not yet been disclosed by the company.

3. THE ENVIRONMENTAL IMPACT OF UBER ON AMERICAN AND EUROPEAN MARKETS

Studies conducted in metropolises in the United States of America leave no doubt that car trips performed by ride-sharing applications such as Uber increase driving miles, raise car ownership, decrease public transport rides, exacerbate congestion, and contribute to air pollution. Specifically, a report prepared by Bruce Schaller, an expert on issues surrounding the rise of new mobility services American cities, demonstrates that Uber and other transportation network companies add 5.7 billion driving miles annually in the Boston, Chicago, Los Angeles, Miami, New York, Philadelphia, San Francisco, Seattle and Washington DC metro areas.³¹ Even though there are some drivers who decide to leave their private cars at home and use ride-pooling services to fill empty seats, this does not make up for the fact that both UberPOOL and Uber Express POOL are reported to add mileage to city streets.³² Furthermore, census statistics show that, in recent years, total car ownership has risen in the eight major cities where Uber is most concentrated.³³ In a study performed at the University of Kentucky, three independent experts examined 22 American cities and presented a model that estimated a 1.29% decrease in rail ridership and 1.7% decrease in bus ridership per year following the entry of Uber and other ride-sharing app-based companies to a city.³⁴ Another study, in which data from 7 major US cities was analysed by scholars from the University of California, estimates that between 49% and 61% of ride-hailing trips would have not been made at all, or made by walking, biking, or public transit.³⁵ This is particularly concerning because, according to data from the U.S. Department of Transportation's National Transit

³¹ B. Schaller, "The New Automobility: Lyft, Uber and the Future of American Cities", Schaller Consulting, 25 July 2018, p. 2, at http://www.schallerconsult.com/rideservices/automobility.pdf, 25 September 2022.

³² Ibid.

³³ Ibid.

³⁴ M. Graehler, R.A. Mucci, G.D. Erhardt, Understanding the Recent Transit Ridership Decline in Major US Cities: Service Cuts or Emerging Modes?, submitted for presentation on 98th Annual Meeting of the Transportation Research Board, 1 August 2018, p. 12.

³⁵ R.R. Clewlow, G.S. Mishra, "Disruptive Transportation: The Adoption, Utilization, and Impacts of Ride-Hailing in the United States", Davis, October 2017, Research Report UCD-ITS-RR-17-07, p. 29, at https://escholarship.org/uc/item/82w2z91j, 25 September 2022.

Database, public transit ridership is falling in 31 out of 35 major U.S. transit markets.³⁶ Undermining public transport not only leads to more traffic and congestion in the cities, but also increases tailpipe emissions. A California Air Resources Board study on the climate impacts of transportation network companies estimated that ride-sharing vehicle fleets produced approximately 50% higher CO2 emissions than the state-wide passenger vehicle fleets in 2018.³⁷ The study also indicates that transportation network companies' fleets have a 7% lower passenger occupancy than California state-wide passenger vehicles.³⁸ This data is mirrored in Uber's own "Climate Assessment and Performance Report 2017-2019" which exposes that on-demand rides using Uber in 2019 resulted in 41% higher carbon intensity and 39% lower travel efficiency compared to average-occupancy private cars in the United States and Canada mega-regions.³⁹

Similarly to the research findings on American market, a study conducted by an independent pan-European research association, Transport & Environment, demonstrates that the rapid growth and popularization of Uber in Europe brought about a rapid increase in the number of private hire vehicles (hereinafter: PHV) drivers, which poses a serious risk of increasing detrimental air pollution and greenhouses gas emissions.⁴⁰ Moreover, this study examined London, which constitutes Uber's biggest European market. Since Uber's arrival in London, taxi and private hire vehicle trips have increased by roughly 25% in the city, which strongly correlates with a 23% increase in overall CO2 emissions in the United Kingdom in the same period.⁴¹ According to the report, the overwhelming majority of the vehicles used by Uber and other ride-hailing apps are equipped with internal combustion engines, releasing CO2 and air pollutants in several European cities.⁴² It is estimated that Uber operations in London, Paris, and Brussels combined contribute around 525 kt CO2 per year, which equates to adding an extra 250,000 cars.⁴³ To make matters worse, it is believed that these extra kilometres

⁴¹ Ibid., p. 7.

⁴³ Ibid., p. 10.

³⁶ F. Siddiqui, "Falling Transit Ridership Poses an 'Emergency' for Cities, Experts Fear", *The Washington Post*, 24 March 2018, at https://www.washingtonpost.com/local/trafficandcommuting/falling-transit-ridership-poses-an-emergency-for-cities-experts-fear/2018/03/20/ffb67c28-2865-11e8-874b-d517e912f125_story.html, 25 September 2022.

³⁷ California Air Resources Board, "SB 1014 Clean Miles Standard 2018 Base-year Emissions Inventory Report", December 2019, p. 3, at https://ww2.arb.ca.gov/sites/default/files/2019-12/SB%20 1014%20-%20Base%20year%20Emissions%20Inventory_December_2019.pdf?utm_medium=email&utm_source=govdelivery, 25 September 2022.

³⁸ Ibid.

³⁹ Uber, "Climate Assessment and Performance Report 2017-2019", 2020, p. 20, at https://dlnyez h1ys8wfo.cloudfront.net/static/PDFs/CAsPR2020_CompleteReportFinal.pdf?uclick_id= 50393768-8154-42fd-9616-0b913782b325, 25 September 2022.

⁴⁰ Transport & Environment, "Europe's Giant 'Taxi' Company: Is Uber Part of the Problem or the Solution?", November 2019, p. 2, 11, at https://www.transportenvironment.org/wp-content/up loads/2021/07/T&E_Europe%20s%20giant%20taxi%20company%20is%20Uber%20part%20 of%20the%20problem%20or%20the%20solut...%20(1).pdf, 25 September 2022.

⁴² Ibid., p. 2.

have mostly been added by diesel cars.⁴⁴ This trend jeopardizes the climate objectives of European cities. Hence, the European non-governmental organisations blame Uber's business model for adding to the problem of climate change and air pollution and call for the retirement of petrol and diesel cars and shifting to 100% electric vehicles.⁴⁵ Interestingly, a poll of 12,523 people carried out by YouGov in seven European countries reveals that the majority of people under 35 who use taxi services are willing to pay more for zero-emission Uber and taxi rides.⁴⁶

As a consequence of the above-mentioned findings, in November 2019 a broad coalition of green non-governmental organizations operating in the United States, Great Britain, Germany, France, the Netherlands and Belgium launched the powerful #True-CostOf Uber campaign, which aimed to raise citizens and city authorities' awareness of Uber's detrimental impact on the environment and called on Uber to go 100% clean in large cities by 2025 by switching to zero-emission vehicles. The campaign turned out to be successful; just ten months later Uber declared in its Clean Air Plan to provide 50% of its rides in emissions-free vehicles by 2025 across seven European capitals, and committed to switch to a 100% electric fleet within five years of the cost of running an electric car reaching parity with a petrol or diesel vehicle.⁴⁷ Moreover, on 8 September 2020, Uber published its first-ever report which not only sheds light on the climaterelated impacts of its passenger trips, but also introduces Uber's ambitious Green Recovery plan to become a fully zero-emission platform by 2040.⁴⁸

4. UBER'S GREEN RECOVERY PLAN

According to the Uber's Chief Executive Officer, Dara Khosrowshahi, the COVID-19 pandemic was taken by the company as an opportunity to assess its environmental impact and shape its future strategies of development in a sustainable manner.⁴⁹ As a result, Uber published its first Climate Assessment and Performance Report and committed to addressing the problem of climate change by driving a 'green recovery' in the

⁴⁴ Ibid.

⁴⁵ Y. Le Petit, "Uber's Environmental Impact in Europe Revealed", Transport & Environment, 16 December 2019, at https://www.transportenvironment.org/discover/ubers-environmental-impact-europe-revealed/#:~:text=Based%20on%20data%20compiled%20by,of%20an%20extra%20250%2C000% 20cars, 25 September 2022.

⁴⁶ Transport & Environment, "The Future of Uber in Europe: Electric and Shared? Consumer Attitudes Towards Uber and Taxi Services", January 2020, p. 2, at https://www.transportenvironment. org/wp-content/uploads/2021/07/The%20future%20of%20Uber%20in%20Europe_electric%20 and%20shared%20(1).pdf, 25 September 2022.

⁴⁷ S. Lopez, "T&E Campaign Secures 'Electric' Commitment from Uber", Transport & Environment, 27 September 2020, p. 1, at https://www.transportenvironment.org/discover/te-campaignsecures-electric-commitment-uber/, 25 September 2022.

⁴⁸ Uber, "Climate Assessment...".

⁴⁹ Ibid., p. 3.

cities to support the future of decarbonization and electrification.⁵⁰ In order to achieve this ambitious goal Uber specified three following commitments:

- 1) by 2025 to make more than \$800 million in resources available to help hundreds of thousands of drivers on Uber's platform more affordably switch to battery EVs;
- by or before 2030 to provide 100% of rides in electric vehicles in US, Canadian, and European cities as well as to reach net-zero climate emissions from corporate operations;
- by 2040 to provide 100% of emission-free rides globally, either in zero-emission vehicles, on micromobility, or on public transit.⁵¹

Uber also acknowledged that *Goals are important, but we know actions matter most* and presented the following 4 key actions intended to start the process of reducing emissions.

Firstly, Uber aims to significantly expand Uber Green, which is a program providing customers with an option to request a trip in electric or hybrid vehicles. Such trips are estimated to produce up to 44% fewer carbon gas emissions than trips in a regular gas-powered car.⁵² With a view to incentivize consumers to make greener choices, Uber decided to reward riders using Uber Green with 3 times the amount of Uber Rewards points for every trip taken, compared to 2 times the points for a typical UberX ride. Drivers receive an extra \$0.50 from a \$1 rider surcharge for every Uber Green trip completed. Indeed, Uber Green was successfully launched in September 2020 in several American and Canadian cities, and by the end of the year it became available in more than 65 cities globally. In 2021, this number increased to over 1,500 cities around the globe. Although this achievement is certainly worth admiration and bodes well for the future, Uber Green has several challenges and deficiencies which must be addressed in order to achieve the ambitious goals set by the company. These include, among others, a lack of appropriate charging, a lack of affordable electric or hybrid electric vehicles for drivers, and insufficient financial incentives to close the interim cost gap. The last one can be easily reduced by positioning the Uber Green option on the top of the list of available rides and making this option slightly cheaper. However, regardless of its prominent promises, Uber is still positioning Uber Green at the bottom of the list and pricing it \$1 more expensive than regular options, which casts doubts on Uber's environmental intentions.

Secondly, Uber has committed to providing \$800 million in resources to assist hundreds of thousands of drivers across US, Canada and Europe in transitioning to electric or hybrid vehicles. This is planned to be achieved by several means – by providing more earnings for drivers who will receive up to \$1.50 in extra cash per ride in a hybrid or electric vehicle, by teaming up with electric vehicle manufacturers, electric vehicle rental companies and charging network providers to offer specialized discounts to Uber drivers, and by partnering with local authorities to achieve 100% all-electric

⁵⁰ Ibid., pp. 3, 46.

⁵¹ Ibid., p. 46.

⁵² Ibid., p. 5.

transport in the cities. Ongoing programs such as the London Clean Air Plan and the French Clean Air Plan are the most recent examples of the last strategy and so far seem to be rather successful. They also prove that pressure from the legislators and cooperation with local institutions are effective incentives for ride-sharing companies to switch their fleet from diesel cars to electric or hybrid vehicles.

Thirdly, Uber commits to invest in the multimodal network by closely cooperating with public transportation agencies around the world. The pivotal step of this plan is to introduce a new multimodal feature in Uber application: UberX and Transit, which will integrate UberX and public transportation travel routes into one complete route, coupled with walking directions to the chosen destination in the app. From an economic perspective, it would establish Uber's position as a one-stop shop for transportation in the city and attract new clients. From an environmental perspective, it might contribute to lowering carbon emissions by encouraging people to walk and use public transport instead of taking a car ride. However, it might have the opposite effect – users might opt for cheap transport options instead of walking or cycling. In the author's opinion, more data and independent research is needed in order to evaluate the environmental impact of such a feature. Beside UberX and Transit, Ubers plans to expand zero-tailpipe-emission micromobility options through additional partner integrations and continuing cooperation with Lyme on renting electric scooters. Expanding lowcarbon mobility options will provide car-free opportunities for many users and ultimately should decrease traffic congestion and reduce air pollution.

Last but not the least, Uber has committed to being transparent and accountable to the public. Uber has started working with the World Resources Institute, Transport & Environment, the Sierra Club, GRID Alternatives, EVNoire, and other renowned environmental organisations.⁵³ This is undoubtedly a step in the right direction; however, cooperation with national and local legislators should be initiated too. In order to address accusations of performing greenwashing policy, on 8 September 2020, Uber shared its Climate Assessment and Performance Report, in which the company refrained from sugar-coating unfavourable data, such as the fact that Uber's carbon intensity is higher than the average-occupancy vehicle ride in the US and Canada.⁵⁴ On the same date Uber also issued the 2020 SPARK! Report⁵⁵ which addresses Uber's plan to convert ride-hailing from petrol vehicles to electric in Europe and examines the barriers and solutions to doing so over the next decade. Just a few months later, Uber published the 2021 Transit Horizons white paper⁵⁶, which explores the future of transportation up to 2030 and offers ideas on how to create resiliency through new business models, service models, cost structures, and technologies as cities impose carbon reducing policies.

⁵³ Ibid., pp. 3, 6.

⁵⁴ Ibid., p. 9.

⁵⁵ Uber, "SPARK! Partnering to Electrify in Europe", 8 September 2020, at https://d1nyezh1ys8wfo. cloudfront.net/static/PDFs/Uber_Spark_report.pdf?uclick_id=8b69d230-1a83-4b9e-95d1-f051 a66f0ac0, 25 September 2022.

⁵⁶ Uber, "Transit Horizons: Towards a New Model of Public Transportation", January 2021, at https:// www.uber.com/us/en/transit/horizons-paper/, 25 September 2022.

Taking all the above-mentioned points into consideration, it seems that Uber is strongly determined to take real actions to meet its ambitious targets. For the company, this also means reaching a respectable status of the most efficient, decarbonized, and multimodal platform in the ride-sharing market. However, questions remain whether and to what extent Uber will really be eager to sacrifice their profit-making business model for a more sustainable one, and whether it will still remain a leading transportation company over the coming decades. For now, it is certainly too early to answer these questions, especially during the COVID-19 pandemic, which is still impacting people's pre-COVID personal and commercial habits. Although Uber's future plans seem promising, the actions and performance of the company within the next few years have to be closely monitored.

CONCLUSION

There are no doubts that Uber has genuinely improved on-demand transport services around the world and revolutionized the transportation sector forever. The rapid growth of the company was achieved partly by posing as a sharing economy business model which is seen as a key factor in moving from an unsustainable linear economy towards a green, circular economy. This helped Uber avoid limiting legal and fiscal regulations, and promote itself as an environmentally-friendly and socially inclusive company. However, besides providing new jobs and increased opportunities for consumers, Uber has also brought about detrimental environmental consequences and risks, including an increase in driving miles, rise in car ownership, exacerbation of traffic congestion, decrease in public transport rides, and increase in air pollution.

In order to assess the environmental impact of the company it is vitally important to make a clear distinction between promises made by the company and its actual actions. In case of Uber, providing services such as Uber Green and UberPOOL, introducing scooters and bikes to its fleet, reducing plastic waste in UberEats and financing initiatives devoted to minimizing traffic congestion and promoting public transportation were certainly crucial first steps on the path towards sustainability. However, as numerous recent studies on American and European markets clearly demonstrate, this is not enough to rectify the negative outcomes of the company's activity on the environment, moreover, it is nowhere near addressing the full breadth of the damage. The most recommended effective solution recently pushed by non-governmental organisations and researchers is a prompt transition to zero-emission vehicles.

Being aware of the pressure from the academic, environmental and political communities as well as its widely criticised detrimental environmental impact, Uber announced a new Green Recovery plan which outlines an intention to conduct a 100% transition to fully electric fleets in US, Canadian, and European cities by 2030 and carry out 100% of rides in zero-emission vehicles, public transit, or through micromobility by 2040. If Uber manages to achieve these ambitious goals, it has a real chance of becoming the most efficient, decarbonized platform in the world for on-demand mobility. Only time will tell whether Uber will really live up to these expectations, however, it has certainly made steps away from its market-driven disruptive business model based on providing services regardless of the environmental costs, and towards a promising ecologically aware company which aims to start a green revolution in the ride-sharing market. And as history shows, if anything, Uber is an extremely successful and revolutionary company which is fully able to implement innovative solutions and catalyse far-reaching changes in the market.

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Anna MOSKAL – PhD researcher at Monash University (Australia), who holds titles of Master of Laws and Master of International Relations with First Class Honours at the Jagiellonian University (Poland). The author has published three books, and nine scientific articles in renowned journals, and is an active participant in over 40 national and international academic conferences. The author is the recipient of the Ryoichi Sasakawa Young Leaders Fellowship Fund and has extensive international academic experience at Harvard University (USA), University of Washington (USA), Cambridge University (UK), University of Melbourne (Australia), and Antwerp University (Belgium). The author has been awarded the National 'Student Nobel Prize', made the Minister's List for three consecutive years and Dean's List for four consecutive years. The author is also a lawyer, English tutor and qualified mediator, whose expertise includes international economic law, digital law, European Union law, and alternative dispute resolutions (specifically mediation and international investment arbitration).