

## **SUSTAINABLE URBAN MOBILITY IN THE SHARING ECONOMY: DIGITAL PLATFORMS, COLLABORATIVE GOVERNANCE, AND INNOVATIVE TRANSPORTATION**

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**ABSTRACT.** Research evidence (e.g. Cassetta et al., 2017; Ma et al., 2018a,b; Vazifeh et al., 2018) suggests that nearly all sharing mobility business patterns give hope of green and affordable urban transport. Using data from APTA, Dalia Research, McKinsey & Company, The National League of Cities, The Shared-Use Mobility Center, Statista, I performed analyses and made estimates regarding continued growth potential for shared mobility, cities' regulatory response to the sharing economy, and shared mobility services booked online. Empirical and secondary data are used to support the claim that the swiftly expanded processes of sharing mobility business patterns have frequently brought about considerable disorder and tensions to city governance.

**Keywords:** sustainable urban mobility; sharing economy; innovative transportation

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### **1. Introduction**

Urban transformation is crucial to worldwide sustainable advancement as individuals gradually come to reside in cities where the mobility sector holds out hope for the paramount capacity of carbon emission decrease. The disorderly business advance generated by the onset of app-based smart-sharing systems (Alpopi and Silvestru (Bere), 2016; Grčić Fabić, Zekić, and Samaržija, 2016; Mircică, 2017; Pera, 2017) has unshackled collaborative use of mobility at significant scales. Harmonizing the current yet inadequately realized low-carbon urban transport modes with developing and expanding app-based sharing mobility business patterns provides tremendous potential to remodel city mobility toward sustainability. (Ma et al., 2018a)

## 2. Literature Review

Information and communication technologies have initiated the approach to innovative solutions for city mobility that supply superior procedures to match users with on-demand vehicles. (Vazifeh et al., 2018) Cutting edge in the transport sector is required from the assimilation of innovative technologies and the advancement of fashionable notions of mobility. The present transport setting has undergone reorganizations, as indicated by the advent of an array of redesigned applications, business patterns and specialisations (Farber, 2017; Michailidou, 2017; Pearson, 2017; Popescu et al., 2017; Teubner, Hawlitschek, and Dann, 2017), in addition to the coming of new participants. (Cassetta et al., 2017) Sharing of products and services, furthered by digitalization, brings about additional underlying forces for urban metabolism. Various routes of urban advancement are influenced by the coaction between the land-use, transport and telecommunications systems (Bratu, 2017; Hurd, 2016; Nica, Comănescu, and Manole, 2017; Popescu Ljunghom, 2016a, b) and their utilization concerning accessibility. (Lyons et al., 2018)

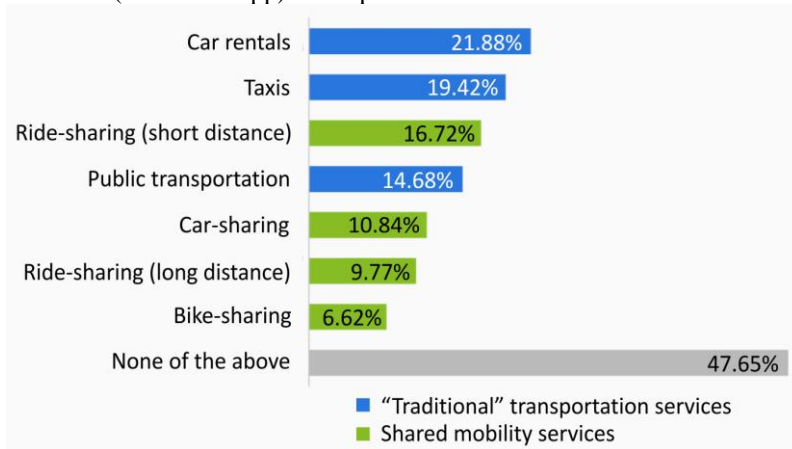
## 3. Methodology

Using data from APTA, Dalia Research, McKinsey & Company, The National League of Cities, The Shared-Use Mobility Center, Statista, I performed analyses and made estimates regarding continued growth potential for shared mobility, cities' regulatory response to the sharing economy, and shared mobility services booked online. Empirical and secondary data are used to support the claim that the swiftly expanded processes of sharing mobility business patterns have frequently brought about considerable disorder and tensions to city governance.

## 4. Results and Discussion

The swift business enlargement and advance of the sharing mobility firms have thoroughly challenged current urban socio-economic links, knowledge systems and physical infrastructures. There is a substantial harmonization process between the shift in order to achieve a more sustainable urban place at the macro-level (Belás et al., 2017; Havu, 2017; Moser, 2017; Peters, 2017; Roca-Sales and Lopez-Garcia, 2017) and the business ecosystem leading edge with the aim of developing a more environment-friendly and fashionable transport at the meso-level. The two-level shifts, set in motion by the disorderly cutting edge process of the sharing economy and regulated by urban radical change towards sustainability (Cheng, 2016; Ionescu, 2017; Nica, Potcovaru, and Mirică (Dumitrescu), 2017; Popescu Ljungholm, 2017), conjointly shape each other and re-implement sustainable values and routines in the rapidly inconstant urban environment and business leading edges. (Ma et al., 2018a) (Figures 1–6)

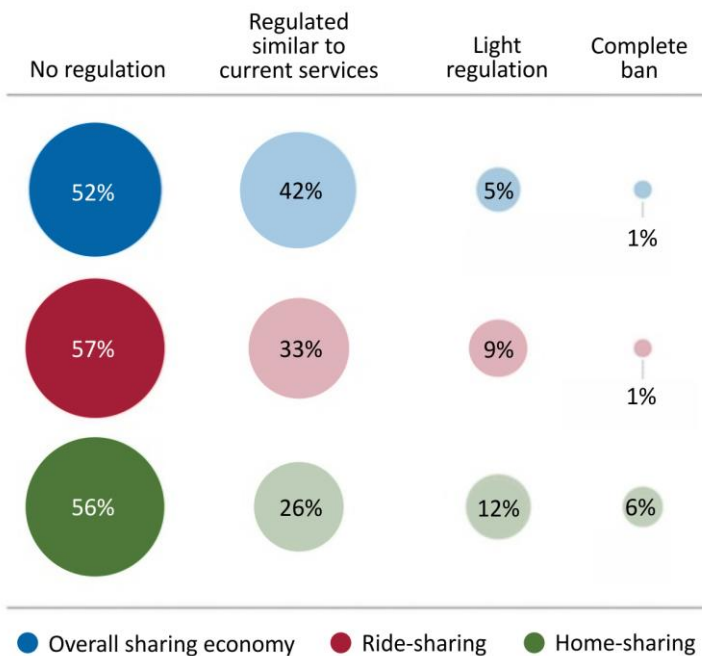
**Figure 1** Which of these services have you booked online (website or app) in the past 12 months?



Sources: Statista Global Consumer Survey; my survey among 2,600 individuals conducted October 2017.

Note: Multiple answers allowed.

**Figure 2** Cities' regulatory response to the sharing economy

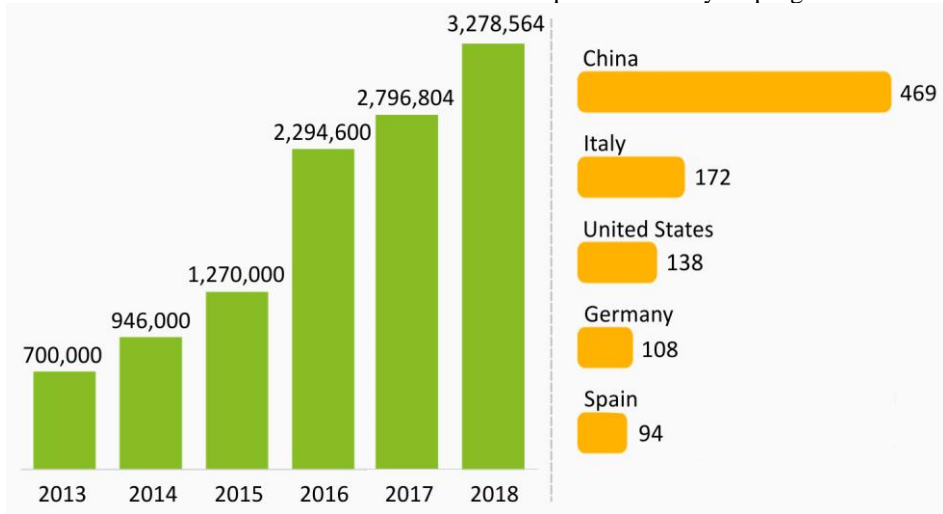


Sources: The National League of Cities City Survey; my survey among 2,600 individuals conducted October 2017.

**Figure 3** The global rise of bike-sharing

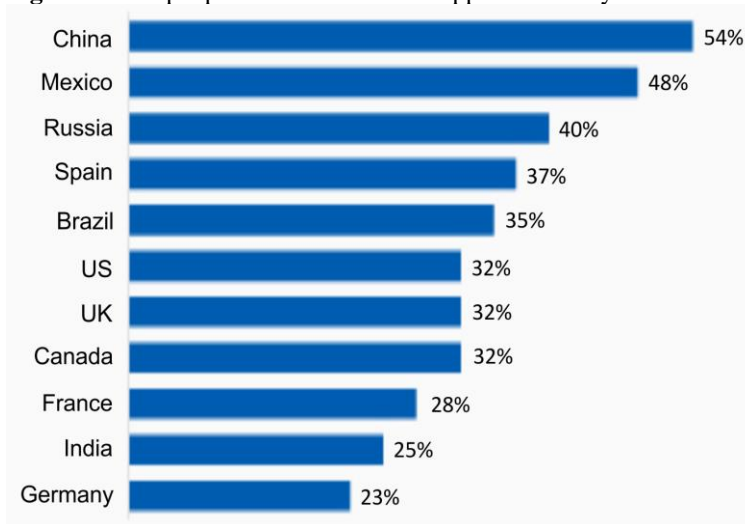
Number of public-use bicycles in the world

Top 5 countries by number of public-use bicycle programs



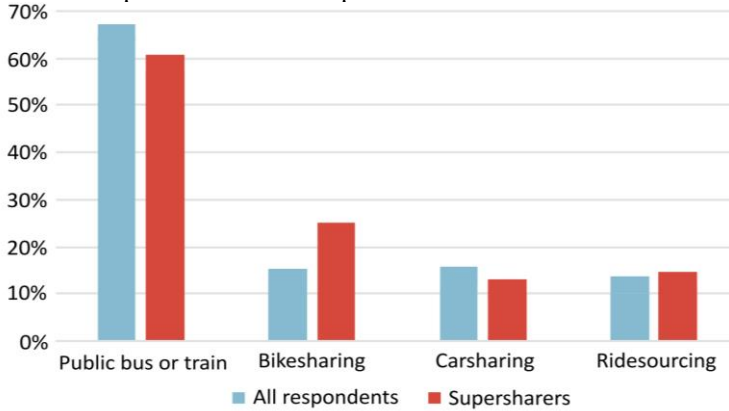
Sources: Russell Meddin, Bike-sharing Blog; Statista; my estimates.

**Figure 4** % of people who have used an app for mobility services



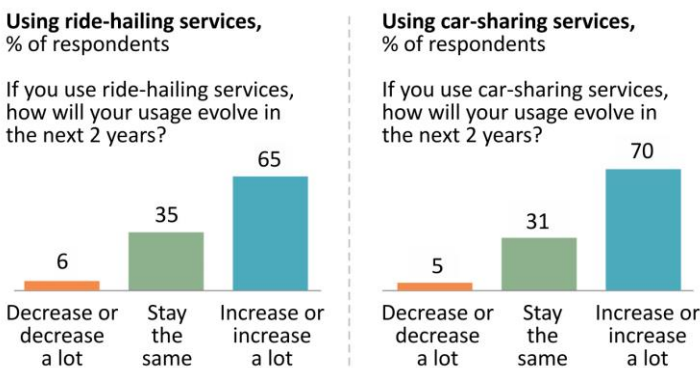
Sources: Dalia Research; Statista; my 2018 estimates.

**Figure 5** Single shared mode used most often – supersharers vs. all respondents



Sources: The Shared-Use Mobility Center; APTA; my survey among 3,100 individuals conducted September 2017.

**Figure 6** Continued growth potential for shared mobility



Sources: McKinsey & Company; my survey among 3,100 individuals conducted September 2017.

## 5. Conclusions

Actual city transport systems have substantially regulated the urban economies and societies, but disruptive technologies’ main alterations are imminent. (Kane and Whitehead, 2018) Nearly all sharing mobility business patterns give hope of green and affordable urban transport, but their swiftly expanded processes (Esty, 2017; Makrakis, 2017; Olssen, 2017; Popescu, Comănescu, and Manole, 2017) have frequently brought about considerable disorder and tensions to city governance. The absence of assimilation and integration of cutting-edge social participants are pivotal barriers to an entirely-operational government–business–society synergic management (emerging social participants may be administrative collaborators in the sharing economy). (Ma et al., 2018b)

### Author Contributions

The author confirms being the sole contributor of this work and approved it for publication.

### Conflict of Interest Statement

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## REFERENCES

- Alpopi, Cristina, and Ramona Silvestru (Bere) (2016). "Urban Development towards Smart City – A Case Study," *Administratie si Management Public* 27: 107–122.
- Belás, Jaroslav, Ján Dvorský, Ladislav Tyll, and Katarína Zvaríková (2017). "Entrepreneurship of University Students: Important Factors and the Propensity for Entrepreneurship," *Administratie si Management Public* 28: 6–25.
- Bratu, Sofia (2017). "Is Green Consumerism Really an Environmentally Conscious Behavior?," *Geopolitics, History, and International Relations* 9(2): 167–173.
- Cassetta, Ernesto, Alessandro Marra, Cesare Pozzi, and Paola Antonelli (2017). "Emerging Technological Trajectories and New Mobility Solutions. A Large-scale Investigation on Transport-related Innovative Start-ups and Implications for Policy," *Transportation Research Part A: Policy and Practice* 106: 1–11.
- Cheng, Tony (2016). "Compositionality and Believing That," *Linguistic and Philosophical Investigations* 15: 60–76.
- Esty, Daniel C. (2017). "Toward a Sustainable Global Economy: An Initiative for G20 Leadership," *Journal of Self-Governance and Management Economics* 5(2): 46–60.
- Farber, Michael (2017). "The Future of Journalistic Labor in the Age of Digital Narratives: The Algorithmic Authority of Automated News as a Legitimate Knowledge Producer," *Psychosociological Issues in Human Resource Management* 5(2): 199–204.
- Grčić Fabić, Mirjana, Zdravko Zekić, and Luka Samaržija (2016). "Implementation of Management Innovation – A Precondition for the Development of Local Government Effectiveness: Evidence from Croatia," *Administratie si Management Public* 27: 7–29.
- Havu, Katri (2017). "The EU Digital Single Market from a Consumer Standpoint: How Do Promises Meet Means?," *Contemporary Readings in Law and Social Justice* 9(2): 146–183.
- Hurd, Heidi M. (2016). "The Innocence of Negligence," *Contemporary Readings in Law and Social Justice* 8(2): 48–95.
- Ionescu, Luminița (2017). "Productivity Accounting and Business Financial Performance: A Review of Current Evidence," *Economics, Management, and Financial Markets* 12(2): 67–73.
- Kane, Michael, and Jake Whitehead (2018). "How to Ride Transport Disruption – A Sustainable Framework for Future Urban Mobility," *Australian Planner* 54(3): 177–185.
- Lyons, Glenn, Patricia Mokhtarian, Martin Dijst, and Lars Böcker (2018). "The Dynamics of Urban Metabolism in the Face of Digitalization and Changing Lifestyles: Understanding and Influencing Our Cities," *Resources, Conservation and Recycling* 132: 246–257.
- Ma, Yuge, Ke Rong, Diana Mangalagiu, Thomas F. Thornton, and Dajian Zhu (2018a). "Co-evolution between Urban Sustainability and Business Ecosystem Innovation: Evidence from the Sharing Mobility Sector in Shanghai," *Journal of Cleaner Production* 188: 942–953.

- Ma, Yuge, Jing Lan, Thomas Thornton, Diana Mangalagiu, and Dajian Zhu (2018b). “Challenges of Collaborative Governance in the Sharing Economy: The Case of Free-floating Bike Sharing in Shanghai,” *Journal of Cleaner Production* 197: 356–365.
- Makrakis, Vassilios (2017). “Unlocking the Potentiality and Actuality of ICTs in Developing Sustainability-Justice Curricula and Society,” *Knowledge Cultures* 5(2): 103–122.
- Michailidou, Artemis (2017). “Feminine Cities: New Orleans in the Work of John Gregory Brown,” *Journal of Research in Gender Studies* 7(2): 11–26.
- Mircică, Nela (2017). “The Ethics of Envy on Facebook,” *Analysis and Metaphysics* 16: 124–130.
- Moser, Keith (2017). “Michel Serres’s Encyclopedic Philosophical Vision of an Ever-Changing Human Landscape,” *Review of Contemporary Philosophy* 16: 11–37.
- Nica, Elvira, Mihaela Comănescu, and Cristina Manole (2017). “Digital Reputation and Economic Trust in the Knowledge Labor Market,” *Journal of Self-Governance and Management Economics* 5(3): 83–88.
- Nica, Elvira, Ana-Mădălina Potcovaru, and Cătălina-Oana Mircică (Dumitrescu) (2017). “A Question of Trust: Cognitive Capitalism, Digital Reputation Economy, and Online Labor Markets,” *Economics, Management, and Financial Markets* 12(3): 64–69.
- Olssen, Mark (2017). “Exploring Complexity through Literature: Reframing Foucault’s Research Project with Hindsight,” *Linguistic and Philosophical Investigations* 16: 80–89.
- Pearson, Holly E. (2017). “Moving towards the Trialectics of Space, Disability, and Intersectionality: Intersecting Spatiality and Arts-based Visual Methodologies,” *Knowledge Cultures* 5(5): 43–68.
- Pera, Aurel (2017). “Do Incessant Comparisons on Social Media Generate Facebook Envy?,” *Analysis and Metaphysics* 16: 117–123.
- Peters, Michael A. (2017). “Ecopolitical Philosophy, Education and Grassroots Democracy: The ‘Return’ of Murray Bookchin (and John Dewey?),” *Geopolitics, History, and International Relations* 9(2): 7–14.
- Popescu Ljunghom, Doina (2016a). “Sustainability Implementation and Organizational Performance,” *Review of Contemporary Philosophy* 15: 139–145.
- Popescu Ljungholm, Doina (2016b). “The Role of Work Organizations in the Social Construction of Gender,” *Journal of Research in Gender Studies* 6(1): 269–275.
- Popescu Ljungholm, Doina (2017). “Global Policy Mechanisms, Intergovernmental Power Politics, and Democratic Decision-Making Modes of Transnational Public Administration,” *Geopolitics, History, and International Relations* 9(2): 199–205.
- Popescu, Gheorghe H., Mihaela Comănescu, and Cristina Manole (2017). “Mobile Knowledge Work, Information Routines, and Digital Technologies,” *Psychosociological Issues in Human Resource Management* 5(2): 187–192.
- Popescu, Gheorghe H., Cristina Alpopi, Mihaela Comănescu, and Florin Cristian Ciurlău (2017). “Through a Glass Darkly: The Political Foundations of Sustainable European Monetary Union,” *Economics, Management, and Financial Markets* 12(3): 70–75.
- Roca-Sales, Meritxell, and Guillermo Lopez-Garcia (2017). “Contemporary Portrayals of Women and Femininity. A Case Study of Lifestyle Blogs in the U.S.,” *Journal of Research in Gender Studies* 7(2): 186–210.
- Teubner, Timm, Florian Hawlitschek, and David Dann (2017). “Price Determinants on Airbnb: How Reputation Pays Off in the Sharing Economy,” *Journal of Self-Governance and Management Economics* 5(4): 53–80.
- Vazifeh, M. M., P. Santi, G. Resta, S. H. Strogatz, and C. Ratti (2018). “Addressing the Minimum Fleet Problem in On-demand Urban Mobility,” *Nature* 557: 534–538.

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