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Germany: Co-Creating Cooperative and Sharing Economies

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Abstract

The chapter describes the sharing economy in Germany as a heterogeneous dynamic, combining local trends and histories with economic forms drawing on experiences mainly from across Europe and North America. Increasingly taken into account by policymakers in the regulation of markets and the redesign of innovation governance frameworks, “sharing” as a complex nexus linking the exercise of citizenship to sustainable consumption and informational self-determination in digital societies will continue to drive and frame the creation of value chains. Of particular interest are linkages between sharing economies and the traditions of cooperativism, currently

experiencing a renaissance. The latter is key because it shapes the context in which sharing economy initiatives exist and expand—an opening of definitions and narrative of innovation, of (public) value, and of collaborative agency and cooperative management.

Keywords: German Sharing Economy, Cooperativism, Platform Economy

Introduction

According to a survey undertaken by the European Commission, Germany has dropped below the European Union (EU) average (24%) regarding the use of sharing services with only 20% of the surveyed population; the percentage is even lower when it comes to sharing services (Germany 4%, EU 6%). The main reasons for this appear to be the lack of time/interest, the lack of technical knowledge, the lack of user trust and the lack of clarity regarding legal, tax, and labour issues (EC 2018a). According to a different survey, however, the sharing economy appears to be growing in Germany (PwC 2018).

The sharing economy requires increasing attention from federal regulators concerned with the design of markets characterised by the aggregation and facilitation of shared use of resources. Whereas current areas of innovation reflect the dominance of traditional sectors (especially automotive/mobility), the sharing economy also includes other significant actors. There are numerous initiatives of social movements and start-ups exploring the role of shared ownership and shared use in addressing complex social and sustainability issues, as well as processes of governance and organizational development in a data-driven economy.

Beyond a general overview of sharing economy developments in Germany, this survey wants to foreground the close relationship between more recent sharing economy trends and a much broader historical tradition of cooperativism that is currently experiencing a renaissance. The latter is key because it shapes the context in which sharing economy initiatives exist and expand—an opening of definitions and narrative of innovation, of (public) value, and of collaborative agency and cooperative management.

Definition

A comprehensive report commissioned and published by the Federal Ministry of Economic Affairs and Energy (Bundesministerium für Wirtschaft und Energie, BMWi) in 2018 provides the following definition: “The sharing economy consists of companies whose business models focus on the web-based temporary provision of goods, sometimes combined with services. This provision happens in a sequential manner to various end consumers. In some of the sharing business models, the sharing company itself is the owner of the goods (e.g., short-term commercial car-sharing such as Drive-Now). In other sharing business models, the sharing company brokers the goods or services that users provide (e.g., procurement of private accommodation via Airbnb)” (BMW 2018: 2).

Useful in its emphasis on the distinctive features of the sharing economy (web-based temporary provision of goods and services, the company as owner and/or broker), this definition focuses on how major international players have transformed national

accommodation and mobility sectors; policy interventions occur mainly in response to developments in these sectors (see below). A study on the role of trust in the sharing economy (Wiencierz and Röttger 2017) stresses the difference between the paradigms of redistribution of used goods (such as eBay), service provision based on goods not owned by users (car-sharing), and forms of collaboration aimed at sharing skills and resources (finance and crowdworking).

A 2019 report published by the Hans-Boeckler-Foundation (Loske 2019) includes the following in its overview of sharing economy activities in Germany: mobility (car, ride, and bike-sharing; carpooling and neighbourhood car-sharing); accommodation (apartment sharing, couchsurfing); co-working (office sharing, repair cafes); clothing (clothes exchange, upcycling); food (food-sharing, food saving, urban gardening); making (co-creation/maker spaces); consumer goods (tools, shared machinery associations); finance (crowdfunding, crowd investing, crowd donation); time banking (volunteering, mutual aid); and education (shared learning).

The sharing economy has been the object of several multidisciplinary research efforts (see list of research organizations below). A map of sharing activities is aggregated and maintained by “i-share: Impact of the Sharing Economy in Germany.” A multi-annual cross-institutional research effort (2015–2019) funded by the Federal Ministry for Education and Research (BMBF) is aimed at standardising definitions related to the sharing economy. Another directory was created by the “Plattformen des Peer-to-Peer-Sharing” research project (Flick and Henseling 2018), also funded by the Federal Ministry für Education and Research (BMBF) through its socio-ecological research program.

Key Questions

A 2018 study (Hawlitsek et al. 2018) of “consumer motivations for and against peer-to-peer sharing” identifies “financial benefits, trust in other users, modern lifestyle, effort expectancy, and ecological sustainability” as the most important drivers and prerequisites of consumers’ intentions to use such platforms; concerns include “independence through ownership and process risk.” While different business models of sharing economy organizations (SEOs) promise to contribute to the achievement of economic, social, and environmental goals, there is as of yet no systematic comparison of these models, no comparative analysis of their positive and negative effects, and no assessment of their current and future societal contribution. The research network “i-share” approaches the sharing economy through such a comparative analysis of business models.

“i-share” has organized six editions of the international research symposia titled “International Workshop on the Sharing Economy.” The last one took place in 2019 in Utrecht, Netherlands, while the 2018 one was hosted by the University of Mannheim in Germany. These events brought together participants from European countries, and their contributions constitute one of the major sharing economy research efforts in Germany. A report titled “Plattformen des Peer-to-Peer Sharing” is due to be published in 2019. A series of reports and a final study (Behrend et al. 2018) have already been published.

Examples of Sharing Economy Initiatives in Germany

While well-established international sharing economy actors (Airbnb, Uber, etc.) are active in Germany, the following selection features local initiatives contributing to the evolving sharing economy ecosystem.

Table 1. Selected Organizations of the Sharing Economy in Germany

Sharing Economy Organization	Details
Auxmoney www.auxmoney.com sector: finance	Facilitates the crowdsourcing of loans; an example of “alternative” FinTech
BerlKönig www.berlkoenig.de sector: mobility	Shuttle-sharing service operated by the Berlin public transportation authority and ViaVan
Cambio www.cambio-carsharing.de sector: mobility	Car-sharing pioneer, station-based, with vehicles in +200 cities
Fairmondo www.fairmondo.de	Sharing meets cooperative e-commerce
finc www.finc.org sector: mobility	Facilitates ride-sharing among the employees at various Mercedes-Benz plants. Example of workplace-related, employee-initiated sharing initiative; practitioner partner in www.peer-sharing.de/praxispartner/finc.html
FreeNow free-now.com/ sector: mobility	Cooperative platform by car companies BMW and Daimler; integrates taxi-platforms Beat, CleverTaxi, Kapten and MyTaxi with car-sharing platforms (Car2Go, Drive-Now)
GLS Bank www.gls.de sector: finance	Cooperative bank, a key provider of loans for the sustainable/social economy; active member of “property design” movement (https://eigentumskonferenz.de) and the “Global Alliance for Banking on Values” (www.gabv.org)
Gloveler https://gloveler.de sector: accommodation	Local accommodation-sharing platform following the model of Airbnb
ioki ioki.com sector: mobility	On-demand e-shuttle service by Deutsche Bahn; “smart mobility” approach aimed at linking shuttle use and public transportation

Kartoffelkombinat www.kartoffelkombinat.de sector: food	Members of the “potato trust” cooperative are committed to the creation of a regional, commons-based sustainable food supply. Currently, counts 1500 households
Kauf ne Kuh www.kaufnekuh.de sector: food	“Cow-sharing;” the animal is not slaughtered until its meat is 100% pre-sold
Kleiderkreisel www.kleiderkreisel.de sector: clothing	Facilitates sharing, selling and donation of used clothing; active in twelve national markets in Europe/USA, practitioner partner in www.peer-sharing.de/praxispartner/kleiderkreisel.html
Lime www.li.me sector: mobility	E-scooter rental, emerging market for micro-mobility
Moia www.moia.io sector: mobility	Car company; VW’s ride-sharing platform, pioneer use of autonomous vehicles, integration of shuttle use with public transportation
resonate resonate.is sector: culture	Music streaming cooperative, with a unique stream-to-own approach; open-sourcing its code, moving towards a blockchain-based business and governance model, initially funded through a token model (R-Chain)
s:coop scoop.vision sector: education/commons-oriented innovation	One of the most recent additions to the cooperative/sharing economy, organized by art students and educators. Focus on the creation of shared infrastructure, alternative innovation narratives to support the shift from start-up individualism to collaborative agency
Smart e. G. smart-eg.de sector: culture and creative industries	The German branch of the European network, freelancer network, focus on the creation of cooperative social security/welfare system
Startnext www.startnext.com sector: finance	First German crowdfunding platform to follow the kickstarter/indigogo-model
Too Good to Go toogoodtogo.de sector: food	Food waste movement; sharing/saving leftovers from bakeries, cafeterias, restaurants
WeShare www.we-share.io sector: mobility	“WeShare” is VW’s e-car-sharing platform with a growing fleet of electric vehicles; innovative use of supermarket parking lots for charging stations; “WeShare” is an existing generic sharing platform (www.weeshare.com/de)

Source: Own elaboration.

While this overview table documents that German sharing economy efforts can be found across all sectors of the economy, the following examples are particularly relevant to the question of bridging gaps between sharing and cooperative economy efforts. In their own way, they contribute to the context of the sharing economy—beyond alternative business models, they focus on questions of value, social welfare, and alternative future narratives.

Context

Cross-Sector: Regulating the Platform Economy

In 2016, the German Federal Ministry of Economic Affairs and Energy (BMWi) issued a “Green Paper: Digital Platforms,” which includes sharing economy platforms in a broader definition of digital platforms: “The distinct economic feature of digital platforms consists in the systematic collection and evaluation of data and associated network effects” (BMWi 2016: 8). The publication of the report was followed by a public consultation process, whose outcomes were assessed and published in 2017 in a White Book outlining the elements of a regulatory framework to ensure “inclusive growth through investment and innovation based on fair competition and the safeguarding of individual rights and data sovereignty” (BMWi 2017b).

Indicative of the increasing regulatory attention the sharing economy requires, a study by the ministry’s research Council (“Wissenschaftlicher Beirat”) approaches the sharing economy in terms of five overlapping trends: consumers increasingly use goods and services provided by other consumers; the significance of ownership decreases as consumers pay for the temporary use of resources; access to these resources is mediated by platforms, whose business model consists of aggregating supply and demand and facilitating transactions, but often face little competition and therefore play a central role in the design of markets; these business models and markets are active across national boundaries; as sharing economy business models often develop in highly-regulated sectors of the economy, the state can either encourage or constrain the development of such business models (BWMi 2017a: 3). The study notes that a more efficient allocation of resources does not necessarily result in lower overall resource use, as sharing lowers the threshold for access to a wide range of goods and services and encourages new forms of investment, as users can more easily act both as consumers and providers of goods and services (BWMi 2017a: 7).

Part of its agenda for the 2017 G20 presidency (and illustrative of the extent to which the regulation of digital economy developments requires supra-national cooperation), BMWi commissioned an OECD report that was published as “Towards the implementation of the G20 Roadmap for Digitalisation: Skills, business dynamics and competition” (OECD 2018). The report identifies the sharing economy as a key area for regulatory developments: “The sharing economy is at the centre of the debate on digitalisation and regulation, with many countries considering changes to applicable legislation in the accommodation and the transport sectors” (OECD 2018: 55). Comparing regulatory initiatives across the OECD Member States in the areas of rental and accommodation, transport, financial services, e-commerce, healthcare, and legal services, as well as consumer protection, data protection and localisation, the report also notes that “the rise of the sharing economy has led to a debate on labour law and tax compliance” beyond the scope of that analysis (OECD 2018: 55). This policy

process suggests that the sharing economy has moved centre stage in the development of regulatory frameworks for the platform economy more generally. This regulatory process is truly multi-level—from the micro-local coordination of services to the vision of a “Digital Service Code” to re-regulate e-commerce across the European Union (Rudl and Fanta 2019).

Sector: Accommodation

The activities of Airbnb in Germany are affected by European level regulations; in July 2019, the European Commission announced that following a 2018 assessment by the European Consumer Protection Cooperation Network (an enforcement network that allows national agencies to request assistance from authorities in another EU country to stop a cross-border infringement of EU consumer law), Airbnb had agreed to several changes to its platform, including a display of total prices (i.e., including all applicable mandatory charges and fees) and information on whether the host is a private or professional provider (EC 2019).

In 2017, the total number of active listings on Airbnb—97,400 (compared to other similar platforms active in Germany such as Wimdu: 12,000; 9flat: 2,000)—amounted to no more than 0.14% share of active listings “entire accommodation” as measured by the housing stock. Unfortunately, the data does not provide evidence for an extensive professionalisation of the rental market (BMW 2018: 10). But even if “only a negligible part of the total housing stock is potentially affected by home-sharing via Airbnb based on data at the federal state-level” (BMW 2018), the study admits that “aggregation and averaging prevent a micro-local investigation; hosts using multiple accounts cannot be identified; the number of actual bookings cannot be accounted for,” concluding that “the identification and analysis of potential issues based on the increasingly important involvement of the sharing economy in the accommodation sector remains a micro-local task” (BMW 2018: 14).

The most ambitious attempt at micro-regulation has been that of the municipality of Berlin. In 2018, the city amended its housing law to ban regular short-term letting of rooms without permission from the authorities (“Zweckentfremdungsverbot-Gesetz” ZwVbG). Property law referring to misappropriation limits home-sharing to 60 days per year (with the exception of situations when owners-occupiers rent a room in their property) and requires the registration of property owners. In 2019, the representatives of local authorities, having collected a total sum of 1.5 million EUR in fines from 250 property owners, realised that the number of illegal (not registered) rentals remains large, a situation partially due to the local government’s lack of staff to check registrations (and collect fines). While Airbnb argues that Berlin’s registration process is part of the problem (cities such as Hamburg offer an automated online registration process), Berlin’s municipality contends that each case needs to be assessed before being registered, as multi-property property owners avoiding registration drain the city’s housing supply and end up pricing low-earners out of the local housing market. However, even if thousands of apartments were returned to the regular rental market by passing property misappropriation regulations, the effect is unlikely to offset the current housing crisis intensified by rising property prices (Tagesspiegel 2019).

Sector: Mobility

Despite significant growth in the number of users (2,460,000/+16.6%) and the number of vehicles (20,200/+12.2%) in 2018 (BCS 2019), car-sharing (free-floating, p2p, and station-based) still amounts to only 0.1% of the total number of registered vehicles

(Deutscher Bundestag 2018). Criticised for facilitating the emergence of a “sharing economy industry” (Vaskelainen 2018) by co-opting the cooperative ethos, car manufacturers are engaging with sharing as part of the structural transformation of the mobility sector as a whole and of the automotive industry in particular; car-sharing is, therefore, likely to continue to serve as a key area of experimentation toward “smart mobility” and “mobility-as-a-service,” but not necessarily as a segment with significant growth potential.

While the federal car-sharing law (Gesetz zur Bevorrechtigung des Car-sharing; CsgG) passed in 2017 has not yet been fully implemented, many German federal states and municipalities are beginning to allow the designation of public areas for the parking of car-sharing vehicles (BCS 2019). Cab drivers and their associations assume that mobility services whose lower rates could be cross-subsidized across locations will marginalise fixed-rate (and more regulated) local services and have tried to stall or slow down the expansion of such services both on the streets and in the courts (see the public protests against “Uber” and “Moia”).

But national policymakers lean toward further deregulation, including changes to the so-called “Rückkehrpflicht für Mietwagen,” which requires drivers of rental cars to return these to their point of departure—unlike cab drivers, who can wait in designated public areas for new customers. As the expansion of car-sharing risks increases rather than reduce the number of vehicles on the street, some companies (“ioki” and “Moia”) are exploring approaches to better integrate with public transportation services.

There is a growing interest in a shift toward “mobility-as-a-service,” integrating public and private platforms. The 2019 e-scooter law (“Verordnung über die Teilnahme von Elektrokleinstfahrzeugen am Straßenverkehr”) is likely to boost the integration of micro-mobility services (“Lime,” “Bird,” “Voi,” and “Tier”) into the mobility mix.

Issues

The Future of Work and Industry

Actors redesigning markets, as well as business and labour at the level of individual organizations involved in the sharing economy, are part of the broad conversation around the future of work (see Bouncken and Reuschl 2018, Colliers 2018 on co-working). This conversation also includes the integration of sharing into the framework of “new” industrialisation, building on the decentralisation of infrastructures, i.e., the sharing economy in industry (Gotsch et al. 2018), manufacturing (Ellwein et al. 2018), or energy storage (Lombardi and Schwabe 2017). An exploration of these trends lies beyond the scope of this overview.

Cooperatives

Exploring the potential of the sharing economy in Germany from the perspective of another set of actors, the report includes the formalised sharing arrangements of the rich German cooperative tradition (“Genossenschaftswesen”). While cooperativism in Germany has its roots in the agricultural sector, other sectors with a strong cooperative dynamic include banking, energy (Brummer 2018), food, and housing. Cooperative approaches to “shared infrastructure” are much older than the platform/sharing economy; such as their counterparts across Europe, German farmers have “shared” equipment for over 60 years in shared machinery associations (Hasenpusch 2018). The cooperative movement just celebrated the 130th anniversary of the “cooperative

law” from 1889. Today, 40 million Germans are members of a cooperative; the cooperative idea was accorded UNESCO Intangible Cultural Heritage status in 2016.

While it is historically inaccurate to argue that this tradition implies that “Germany invented the sharing economy” (Reay 2018), not least because the modern cooperative movement has its roots in England (ICA) (and sharing is common to all cultures), it is true that the cooperativism pioneers “Raiffeisen and Schulze-Delitzsch (...) were ahead of their time in anticipating a sharing economy based more on mutual benefit than on personal or public property” (Reay 2018). In order to support the further development of the sharing economy, establishing and strengthening links with the cooperative sector is important, as the new forms of “platform cooperativism” and the assessments of the future potential of the sharing economy are likely to benefit from exploring these wider historical connections with cooperative ownership and use. The cooperative movement is currently going through a fair amount of soul-searching; organizations such as Igenos e. V., an association of cooperatives’ members, are making a case for a bottom-up renewal of a cooperative tradition hampered by its top-down traditions (Igenos 2018). The discussion of “platform cooperatives” offers additional inspiration. Traditional cooperative actors are beginning to engage with the platform cooperativism trend (Bott and Giersberg 2019), but the key actors in critically assessing this trend have been civil society organizations such as Supermarkt Berlin and rethink coop (a member of the US-based “Platform Cooperativism Consortium”). Recent initiatives such as the music streaming cooperative resonate.is and the Platform Cooperatives Germany coop reflect a growing interest in a renaissance of cooperativism in the context of contemporary peer-to-peer cultures and infrastructures.

Smart Cities

As more and more communities define “smart city” frameworks to guide the integration of digital infrastructure development, the role of commoning is commanding increasing attention in broader efforts to increase participation, involve citizens in urban development, and support local innovation actors in opening their research and development processes through the integration of urban (cultural) dynamics.

Other Major Players

University Research

Most of the following research actors are involved in the “i-share” research consortium.

Augsburg University, Information Systems and Management, www.wiwi.uni-augsburg.de/de/bwl/veit

Fraunhofer-Institut für Arbeitswirtschaft und Organization IAO, www.iao.fraunhofer.de

Fraunhofer-Institut für System- und Innovationsforschung ISI, www.isi.fraunhofer.de

Göttingen University, Organization und Unternehmensentwicklung, www.uni-goettingen.de/de/80949.html

HafenCity University Hamburg, Stadt und Regionalökonomie (Grabher), www.hcu-hamburg.de/master/stadtplanung/arbeitsgebiete-professuren/gernot-grabher/

Hertie School of Governance, www.hertie-school.org

Institut für Energie und Umweltforschung Heidelberg (IFEU), www.peer-sharing.de (research project on peer sharing platforms)

Institut für ökologische Wirtschaftsforschung (IÖW), www.peer-sharing.de (research project on peer sharing platforms)

Institut für Zukunftsstudien und Technologiebewertung (IZT), www.peer-sharing.de (research project on peer sharing platforms)

Karlsruhe Institute of Technology, Institut für Informationswirtschaft und Marketing, www.iism.kit.edu (Hawlitschek)

Leipzig University, Communication Management; “Ps2Share: Participation, Privacy, and Power in the Sharing Economy” (H2020) research consortium, www.cmgt.uni-leipzig.de

Mannheim University, ABWL, Public and Non-profit Management, www.bwl.uni-mannheim.de/helmig

Mannheim University, Institut für Mittelstandsforschung (coordination of “i-share” research consortium/conference series), www.ifm.uni-mannheim.de

Technical University Berlin, Trust in Digital Services, www.tds.tu-berlin.de/menue/trust_in_digital_services (Teubner)

Technical University Chemnitz, Innovationsforschung und Technologiemanagement, www.tu-chemnitz.de/wirtschaft/bwl9/ (Herrmann-Fankhänel)

WWU Münster, Institut für Kommunikationswissenschaft, www.uni-muenster.de/Kowi/
Experimental Media Lab, Hochschule der Bildenden Kuenste Saar (anticipate.network, datenraum.design)

Unions, Labour Organizations, and Civil Society

h3o, www.h3-o.de/rethink-coop.html (think tank/prototyping platform cooperatives)

Smart Coop, <https://smart-eg.de> (freelancer cooperative)

Supermarkt Berlin, <https://supermarkt-berlin.net> (cooperativism, decentralised governance)

WeQ Foundation, <http://weq.foundation> (shift from “economy to weconomy,” exploring the “megatrend toward systemic-holistic commons thinking and collaborative action”)

Commercial Lobbying Groups and Membership Organizations

Bundesverband Car-Sharing e.V, www.carsharing.de (umbrella organization for the car-sharing industry)

Verkehrsclub Deutschland, www.vcd.org (association for sustainable mobility, focus areas include integrated mobility approaches)

Future Directions of Research

Sharing Economy vs Solidarity Economy

Some observers question whether “sharing,” riding on the popularity wave of the digital economy, actually ends up replacing services that were already freely available. Is “sharing” recast as a service that can be accessed via a (digital) platform? Libraries,

public pools, public transportation have long offered “shared resources” but are not generally perceived as being part of a “sharing” economy. This relates to a broader agenda of how (public) value and its creation/generation is organized and perceived (Mazzucato 2018). A key research topic for future explorations is the extent to which the sharing economy revolves not only around (shared) ownership but also around the (collaborative) creation of value.

Summary

The sharing economy in Germany is described as a heterogeneous dynamic, combining local trends and histories with economic forms drawing on experiences mainly from across Europe and North America. Increasingly taken into account by policymakers in the regulation of markets and the redesign of innovation governance frameworks, “sharing” as a complex nexus linking the exercise of citizenship to sustainable consumption and informational self-determination in digital societies will continue to drive and frame the creation of value chains. Of particular interest are linkages between sharing economies and the traditions of cooperativism, currently experiencing a renaissance.

References

- Bauer, W. (ed) (2015). *Strukturstudie «BWSHARE,» Gemeinschaftliche Nutzung von Ressourcen. Chancen und Herausforderungen der Sharing Economy für die etablierte Wirtschaft in Baden-Württemberg (Structural Study «BWSHARE,» Shared Use of Resources: Opportunities and challenges of the sharing economy for the existing economy in Baden-Württemberg)*. Fraunhofer-Institut für Arbeitswirtschaft und Organisation. www.iao.fraunhofer.de/images/iao-news/strukturstudie-bw-share.pdf. Accessed: 07 July 2020.
- BCS (2019). *CarSharing in Deutschland. Jahresbericht 2018/19 (Car-sharing in Germany. Annual Report 2018/19)*. https://carsharing.de/sites/default/files/uploads/bcs_jahresbericht_2018_web.pdf. Accessed: 07 July 2020.
- Behrendt, S., Henseling, C., Scholl, G., eds. (2018). *Digitale Kultur des Teilens. Mit Sharing nachhaltiger Wirtschaften (Digital culture of sharing: toward a more sustainable economy through sharing)*. Wiesbaden: Springer. <https://doi.org/10.1007/978-3-658-21435-7>.
- BMWi (2016). *Digital Platforms. Green Paper*. www.bmwi.de/Redaktion/EN/Publikationen/green-paper-digital-platforms.pdf. Accessed: 07 July 2020.
- BMWi (2017a). *“Sharing Economy“ und Wirtschaftspolitik. Gutachten des Wissenschaftlichen Beirats beim Bundesministerium für Wirtschaft und Energie (Sharing economy and economic policy. Report by the scientific Council at the German Federal Ministry of Economic Affairs and Energy)*. www.bmwi.de/Redaktion/DE/Publikationen/Ministerium/Veroeffentlichung-Wissenschaftlicher-Beirat/gutachten-wissenschaftlicher-beirat-sharing-economy-wirtschaftspolitik.html. Accessed: 07 July 2020.

- BMWi (2017b). *Weißbuch Digitale Plattformen (White paper on digital platforms)*. www.de.digital/DIGITAL/Navigation/DE/Weissbuch/weissbuch.html. Accessed: 07 July 2020.
- BMWi (2018). *Sharing Economy in Germany: Analysis of the sharing economy in Germany and possible courses of action to regulate the accommodation sector*. www.bmwi.de/Redaktion/EN/Publikationen/Studien/sharing-economy-im-wirtschaftsraum-deutschland.html. Accessed: 07 July 2020.
- Bott, J., Giersberg, K.-W. (2019). *Über die Bedeutung deutscher Genossenschaften im globalisierten Wettbewerb (On the significance of German cooperatives in a globalised competitive economy)*. ADG Scientific Centre for Research and Cooperation. www.adgonline.de/forschung/whitepaper-genossenschaften-im-globalisierten-wettbewerb/. Accessed: 07 July 2020.
- Bouncken, R.B., Reuschl, A. J. (2018). Coworking spaces: how a phenomenon of the sharing economy builds a novel trend for the workplace and for entrepreneurship. *Rev Manag Sci* 12, 317–334. <https://doi.org/10.1007/s11846-016-0215-y>. Accessed: 07 July 2020.
- Brummer, V. (2018). Of expertise, social capital, and democracy: Assessing the organizational governance and decision-making in German Renewable Energy Cooperatives. *Energy Research & Social Science* 37, 111–121, <https://doi.org/10.1016/j.erss.2017.09.039>. Accessed: 07 July 2020.
- Colliers (2018). *Co-Working-Cente. Brauchen wir das? Über die Zukunftsfähigkeit von Co-Working-Centern. Eine Umfrage unter Nutzern und Betreibern (Co-working centre: do we need this? A survey among users and providers)*. www.colliers.de/wp-content/uploads/2018/06/Colliers-Studie-CO-WORKING-2018-1.pdf. Accessed: 07 July 2020.
- Deutscher Bundestag (2018). *Bericht zu den markt- und beschäftigungspolitischen Potenzialen sowie Risiken der Sharing Economy im Wirtschaftsraum Deutschland (Report on the potential economic and labour market impact of the sharing economy in Germany)*. <http://dip21.bundestag.de/dip21/btd/19/051/1905100.pdf>. Accessed: 07 July 2020.
- EC (2018a). *Flash Eurobarometer 467. Report. The use of the collaborative economy*. Survey conducted by TNS Political and Social at the request of the European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs. European Union. http://ec.europa.eu/growth/single-market/services/collaborative-economy_en. Accessed: 07 July 2020.
- EC (2018b). *Study to Monitor the Economic Development of the Collaborative Economy at sector level in the 28 EU Member States. Final Report*. Luxembourg. http://ec.europa.eu/growth/single-market/services/collaborative-economy_en. Accessed: 07 July 2020.
- EC (2019). *EU consumer rules: Airbnb cooperates with European Commission and EU consumer authorities improving the way it presents offers*. https://ec.europa.eu/commission/presscorner/detail/en/IP_19_3990. Accessed: 07 July 2020.
- Ellwein, C., Schmidt, A., Riedel, O., Lechler, A. (2018). Shareconomy in the manufacturing industry. Impact on the manufacturing industry by the sharing

- paradigm. *Zeitschrift für wirtschaftlichen Fabrikbetrieb*, 113(11), 775–778. <https://doi.org/10.3139/104.112010>.
- Flick, C., Henseling, C. (2018). Plattformen des Peer-to-Peer Sharing. Digitale Kultur des Teilens (Platforms of peer-to-peer sharing: digital culture of sharing). In: Behrendt S., Henseling C., Scholl G. (eds) *Digitale Kultur des Teilens*. Wiesbaden: Springer. https://doi.org/10.1007/978-3-658-21435-7_3.
- GLS (2017). *Anlage- und Finanzierungsgrundsätze (Investment and credit principles)*. Bochum: GLS Bank. www.gls.de/media/PDF/Broschueren/GLS_Bank/gls_anlage-und_finanzierungsgrundsaeetze.pdf. Accessed: 07 July 2020.
- Gotsch, M., Lerch, C., Eckartz, K. Gandenberger, C., Frank, S. (2018). Industriell-kollaborative Wirtschaftsformen. Verbreitung neuartiger Nutzungs- und Eigentumsmodelle im Verarbeitenden Gewerbe (Industrial-collaborative economic forms: the spread of new models of use and ownership in manufacturing industries). In: Bruhn, M., Hadwich, K. (eds), *Service Business Development*. Wiesbaden: Springer. https://doi.org/10.1007/978-3-658-22426-4_15.
- Hasenpusch, M. (2018). *Die dritte Bauernbefreiung (The third liberation of peasants)*. Spectrum. www.deutsche-leasing.com/site/DL.com/get/documents_E-466730824/cms/downloads/Unternehmen/spectrum/DL_SPECTRUM_56_web1_E_inzel.pdf. Accessed: 07 July 2020.
- Haucap, J., Kehder, C. (2018). *Welchen Ordnungsrahmen braucht die Sharing Economy? (What type of regulation is needed for the sharing economy?)* www.dice.hhu.de/fileadmin/redaktion/Fakultaeten/Wirtschaftswissenschaftliche_Fakultaet/DICE/Ordnungspolitische_Perspektiven/94_OP_Haucap_Kehder.pdf. Accessed: 07 July 2020.
- Hawlitschek, F., Teubner, T., Gimpel, H. (2018). *Consumer motives for peer-to-peer sharing*. <http://publica.fraunhofer.de/dokumente/N-509929.html>. <https://doi.org/10.1016/j.jclepro.2018.08.326>. Accessed: 07 July 2020.
- ICA. (2020) *History of the cooperative movement*. www.ica.coop/en/cooperatives/history-cooperative-movement. Accessed: 07 July 2020.
- Igenos (2018). *Alt aber sexy: Unsere Rechtsform Genossenschaft. Darum verdient der dritte Weg eine zweite Chance! Diskussionspapier (Old but sexy: Our legal form cooperative: that is why the third way needs a second chance!)* www.igenos.de/wp-content/uploads/2018/07/igenos-AP-1.4-13.07.2018-1.pdf. Accessed: 07 July 2020.
- Lombardi, P., Schwabe, F. (2017). *Sharing economy as a new business model for energy storage systems*. <http://publica.fraunhofer.de/dokumente/N-480826.html>. <https://doi.org/10.1016/j.apenergy.2016.12.016>. Accessed: 07 July 2020.
- Loske, R. (2019). *Die Doppelgesichtigkeit der Sharing Economy: Vorschläge zu ihrer gemeinwohlorientierten Regulierung (The double face of the sharing economy: proposals for a commons-oriented regulation)*. Hans-Böckler-Stiftung. <https://doi.org/10.5771/0342-300x-2019-1-64>. www.wsi.de/data/wsimit_2019_01_loske.pdf. Accessed: 07 July 2020.
- Mazzucato, M. (2018). *The Value of Everything: Making and Taking in the Global Economy*. <https://marianamazucato.com/publications/books/value-of-everything/>. Accessed: 07 July 2020.

- Murillo, D., Buckland, H. Val, E. (2017). When the sharing economy becomes neoliberalism on steroids: Unravelling the controversies. *Technological Forecasting and Social Change*, 125, 66–76. <https://doi.org/10.1016/j.techfore.2017.05.024>
- OECD (2018). *Towards the implementation of the G20 Roadmap for Digitalisation: Skills, business dynamics and competition. Report prepared at the request of the 2017 G20 German Presidency.* www.de.digital/DIGITAL/Redaktion/DE/Publikation/towards-the-implementation-of-the-g20-roadmap-for-digitalisation.html. Accessed: 07 July 2020.
- PwC (2018). *Share Economy 2017: The New Business Model.* www.pwc.de/de/digitale-transformation/share-economy-report-2017.pdf. Accessed: 07 July 2020.
- Reay, D. (2018). *Very Cooperative: How Germany invented the sharing economy.* Handelsblatt Today. www.handelsblatt.com/today/finance/very-cooperative-how-germany-invented-the-sharing-economy/23581748.html. Accessed: 07 July 2020.
- Rudl, T., Fanta, A. (2019). *Geleaktes Arbeitspapier: EU-Kommission erwägt neues Gesetz für Plattformen (Leaked working paper: Commission contemplates new law for digital platforms).* <https://netzpolitik.org/2019/geleaktes-arbeitspapier-eu-kommission-erwaegt-neues-gesetz-fuer-plattformen/>. Accessed: 07 July 2020.
- Tagesspiegel (2019). *Bezirke nehmen rund 1,5 Millionen Euro Bußgelder ein (Districts collect 1,5 million EUR in fines).* www.tagesspiegel.de/berlin/illegale-ferienwohnungen-bezirke-nehmen-rund-1-5-millionen-euro-bussgelder-ein/24591366.html. Accessed: 07 July 2020.
- Vaskelainen, T. (2018). *The Emergence of the Sharing Economy Industry: Insights from the German Car-sharing Industry.* JYU Dissertations. https://jyx.jyu.fi/bitstream/handle/123456789/58767/978-951-39-7495-4_vaitos2208_2018.pdf Accessed: 07 July 2020.
- Wiencierz, C., Röttger, U. (2017). *Konsumentenvertrauen in der Sharing Economy. Vertrauensprozesse in einer digitalen Welt des Tauschens und Teilens (Consumer confidence in the sharing economy: Processes of trust in a digital world of exchange and sharing).* https://doi.org/10.15501/978-3-86336-922-4_4
- Wruk, D., Vith, S., Oberg, A., Höllerer, M. A., Meyer, E. R. (2019). *Differences in environmental embeddedness of organizational forms: The case of sharing economy organizations in Germany.* Presentation. 6th International Workshop on the Sharing Economy. <https://6thiwse.sites.uu.nl>. Accessed: 07 July 2020.

Relevant Websites

Impact of the Sharing Economy in Germany: www.i-share-economy.org

Platform Cooperativism Consortium: <https://platform.coop>