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Sharing Economy Policy in Luxembourg

A report for the Ministry of the Economy, Luxembourg

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This research was commissioned via LSE Consulting which was set up by the London School of Economics and Political Science to enable and facilitate the application of its academic expertise and intellectual resources.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
CHAPTER 1: What is the Sharing Economy?	15
I. Unpacking the platform economy: a guide to terminology	15
II. The role of digital platforms	19
III. Different types of transactions in the sharing economy	21
IV. The state of the sharing economy in Luxembourg	22
V. Modelling the impact of the sharing economy	25
CHAPTER 2: The Business and Regulatory Environment for the Sharing Economy in Luxembourg	27
I. Shaping the business and regulatory environment of the sharing economy in Luxembourg	27
II. Creating sustainable sharing solutions through regulatory and non-regulatory measures	34
CHAPTER 3: The Benefits and Opportunities of the Sharing Economy	43
I. A more efficient allocation of resources	43
II. Employment opportunities	45
III. Innovation and digitalisation	47
IV. Impacts on the traditional economy	48
V. Impacts on local communities	48
VI. Environmental impact	49
CHAPTER 4: Challenges of the Sharing Economy	53
I. The sharing economy and the General Data Protection Regulation	55
II. Consumer protection	62
III. Dispute resolution	69
IV. The sharing economy and taxation	73
V. The sharing economy and the traditional economy	80
VI. Employment relations	90
VII. The potential impact of blockchain technology on the sharing economy	95
CHAPTER 5: Defining Policy and Regulatory Options and Recommendations ...	99
I. Settling a favourable business and regulatory environment	100
II. Answering to the main sharing economy challenges	102

EXECUTIVE SUMMARY

This study examines the current state of the sharing economy in Luxembourg, maps related challenges and opportunities in this area, and defines policy options and recommendations for the Luxembourg Ministry of the Economy.

There is significant potential to further unlock the sharing economy in Luxembourg. A recent study reveals that the country only ranks in the 211th place of all countries surveyed with regard to participation in the sharing economy.¹ Usage of sharing economy platforms has increased over the last two years as the 2018 Eurobarometer survey on the sharing economy found that 22% of Luxembourg residents have used a collaborative platform, compared with 13% in 2016. This represents an increase in usage of 69% over just two years and brings Luxembourg close to the EU average in terms of platform usage (23%).²

This study finds that Luxembourg counts 44 online platforms facilitating the sharing of assets in the sectors of transport, accommodation, finance and services. Most platforms originate in the country (20) or in neighbouring European countries (19). The sharing economy sector is expected to grow further, as shown by the multiplication of platforms over the past years (the most recent being the launch of the ride sharing platform Ride2Go in September 2018), and the increase of transactions on these platforms (e.g. the growing number of listings advertised on Airbnb -- + 30% between 2017 and 2018 in Luxembourg according to Fondation IDEA).

We have reviewed academic literature, carried out desk research and conducted interviews with relevant stakeholders and platform managers in the country in order to provide an economic and legal analysis of this new socio-economic phenomenon in Luxembourg. The results of the study are as follows:

What is the Sharing Economy?

The sharing economy can be described by many different, often overlapping and sometimes contradictory terms. We clarify the most prominent concepts in the sharing economy, describe the underlying business models and behaviours, and analyse the challenges and opportunities they create. The different terms used to define the sharing economy are summarised below:

The Sharing Economy

In the sharing economy, the focus lies on the sharing of **underutilised assets**, regardless of whether such assets are **monetised or not** or whether they are **mediated through a platform or not**. This concept is therefore closely linked to the wider aims of 'resource efficiency', 'sustainability' and 'community'. BlaBlaCar, Airbnb, and the platform DingDong in Luxembourg, are examples of sharing economy platforms, as they allow users to share spare goods with others.

¹ <https://beta.timbro.se/allmant/timbro-sharing-economy-index/>

² https://data.europa.eu/euodp/data/dataset/S2112_438_ENG

The Collaborative Economy

The European Commission refers to the 'collaborative' economy instead of the 'sharing' economy,³ and characterises it by the fact that platforms offer users **temporary usage of goods and services**.

This definition partially overlaps with sharing economy practices, but it is also broader because it (a) doesn't require that the goods and services that are shared are underutilised; (b) the existence of an online platform is a necessary prerequisite to form part of the collaborative economy.

The Access Economy

The term access economy has been coined by Jeremy Rifkin and it is characterised by **'access over ownership'**, where online intermediaries offer fast and convenient access to goods and services to users who are interested in using rather than owning the good.⁴ This overlaps partially with the sharing economy, but in this case the assets shared are not necessarily underutilised.

Examples of the access economy include car sharing and bike sharing arrangements, such as as Vel'ok or Carloh in Luxembourg, or shared working spaces such as WeWork. These are not part of the sharing economy since the bicycles and cars are part of a fleet acquired specifically for these purposes and they are therefore not an underutilised asset.

The Gig Economy

The 'gig economy' refers to the use of online platforms to source small (sometimes on-demand) jobs ('gigs'). The 'Freelance Economy' is a synonym that is often used although in this case, the existence of an intermediating platform is not a prerequisite.

An example of the gig economy is Taskrabbit, a platform that matches those that need help with a particular task and individuals looking for 'gigs', or other platforms offering professional services on a flexible basis (for instance Legally, which focuses on legal services).

This discussion is summarised in the figure below:

³ This terminology has its origins in Kathleen Stokes, Emma Clarence, Lauren Anderson, April Rinne. *Making Sense of the UK Collaborative Economy* (Nesta, 2014). Available at: <https://www.nesta.org.uk/report/making-sense-of-the-uk-collaborative-economy/>

⁴ April Rinne, "What exactly is the sharing economy?" *World Economic Forum* (13 December 2018) <https://www.weforum.org/agenda/2017/12/when-is-sharing-not-really-sharing>

Figure 1: Situating the sharing economy

A single platform can be part of different economies and involve at the same time private individuals ('peers') and businesses.

This diversity is also expressed in the transaction modes and monetisation models used by sharing economy platforms. In general, online platforms create value because they bring providers and consumers together, thereby reducing transaction costs and generating positive indirect network effects (e.g. users of one group benefit from an increased presence of users from a different group). But within this broad business model, sharing economy platform involve a wide range of transaction modes (i.e. renting, lending, swapping, sharing) and monetisation models (transaction fees, add-on service fees, advertising, membership fees) as illustrated in the figure below.

Figure 2: Monetisation models and transaction types in the sharing economy

Regarding the impacts of the sharing economy, these depend on whether the sharing economy transaction substitutes a transaction in the traditional economy or whether it constitutes genuinely new (additional) demand. There may also be a so-called “rebound effect” as any income earned through sharing economy transactions is spent on other goods and services. It is important to understand both positive and negative impacts of these factors to devise appropriate policy responses.

The Benefits and Opportunities of the Sharing Economy

Sharing economy business models offer a range of benefits and opportunities for providers, consumers and society, including for instance greater variety, higher availability, lower costs, or more efficient resource use compared to the alternatives offered by traditional industry.

While some of these benefits are common to the platform ecosystem, others are specific to sharing economy business models (i.e. characterised by the trading of underutilised assets). Within the sharing economy, the type of transaction that is facilitated and the monetisation model can also have different implications and generate different types of benefits.

There are six key benefits of the sharing economy where the first four relate to the economic implications: **economic growth through better matching of resources; opportunities for employment; innovation; and spillovers on the conventional sector.** Because platforms allow the efficient matching of supply and demand through the reduction of transaction and coordination costs, the sharing economy is expected to

provide lower prices, greater disposable income for consumers, additional revenues for providers, lower transaction costs, and better matching of supply and demand through dynamic pricing. There are also benefits in regard to employment, as the sharing economy allows new providers, including non-professionals, to enter traditional markets for the supply of goods and services. In Luxembourg, these are mostly generated by the services sector (i.e. freelancer or odd jobs platforms) and the accommodation sector (i.e. mostly through Airbnb). The sharing economy can also generate indirect forms of employment. For instance, tourists staying in collaborative forms of accommodation also spend their money in local shops and restaurants, just like they would have done in a traditional hotel or bed & breakfast. There are also important spillover effects on the traditional sectors of the economy (hotels, taxis, retail) by generating incentives for innovation and digitalisation of services, e.g. the emergence of taxi apps such as Cabify.

The last two types of benefits deal with societal aspects, i.e. the development of local communities and potential benefits for the environment. The sharing economy is said to strengthen the sense of belonging to a community, and can thus generate important social benefits that can also be seen offline. In Luxembourg, initiatives such as Ding Dong, Tauschkrees or Transition Minett allow the exchange of items among Luxembourg residents, and they have the effect of triggering in-person participation in local projects and initiatives.

Finally, environmental impacts should be considered, although they vary depending on the sector and on the potential rebound effects (i.e. the consumption of additional goods through the gain of purchasing power resulting from sharing/renting goods). For example, the money saved through renting one room on Airbnb can be spent on more travel, which results in an increased environmental footprint.

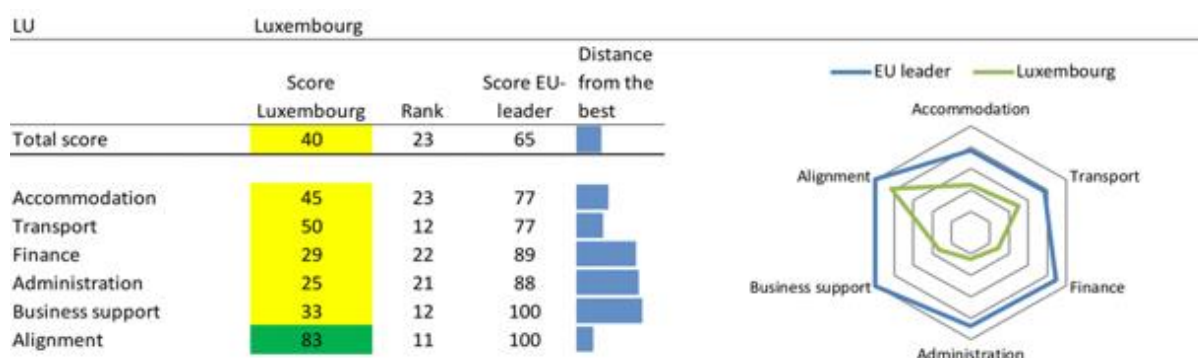
The Regulatory and Business Environment

There is no regulatory framework specific to the sharing economy in Luxembourg, and sharing economy activities are regulated by the legislation applicable to the conventional sector. There are no definitions for the sharing economy in the national legislation, nor clear distinctions between peer and professional providers and which regulations apply to them.

Nevertheless there is a willingness by public authorities to understand this new socio-economic phenomenon and foster its development. The government of Luxembourg has set up a favourable environment for start-ups and innovative services. There is a clear willingness by authorities to get better information and to encourage the development of the sharing economy, as already demonstrated by the development of the Third Industrial Revolution Strategy.

Despite this important commitment from the government, there remain stark legal uncertainties across many areas. Indeed, we have identified that there is a very strong lack of legal certainty in relation to how many legal frameworks should be applied to various sharing economy transactions. This is one of the reasons Luxembourg ranks 23 out of 28 in the EU Single Market Scoreboard for the collaborative economy, as Figure 3 shows.⁵ Tailoring support measures to the sharing economy, with for instance the provision of targeted guidance for sharing economy platforms, taxation rules, necessary licenses, insurance requirements and applicable legislation, are elements that could improve Luxembourg's performance in the future.

⁵ http://ec.europa.eu/internal_market/scoreboard/performance_per_policy_area/collaborative-economy/index_en.htm

Figure 3: The regulatory and business environment affecting the sharing economy in Luxembourg

Source: European Commission, DG GROW.

For public authorities to successfully approach the digital transformation, which is a key driver of the sharing economy, a dual approach is needed. First, digital innovation ought to be actively embraced. Second, this does not, however, equal a passive embracing of industry-driven developments. Rather, **public authorities must actively steer innovation to align it with recognised public policy objectives.**

There are several ways for public authorities to promote sharing, including directly supplying sharing economy services (such as *Co-Pilote*), or setting the example through their own adoption of a sharing culture. Regarding the form of regulation adopted, this could be done either through regulatory, non-regulatory, or co-regulatory means. **Co-regulation** is particularly encouraged as this approach allows for more flexibility and adaptability, and has the advantage of involving platforms in the regulatory process. For example, Airbnb and the cities of Amsterdam and London have introduced automated time limits for home sharing to ensure that entire-home listings are not made available for more than a limited number of days per year. In Lisbon Airbnb collects tourist tax on behalf of hosts. The same is true in nineteen French cities. **Multi-stakeholder consultations** with platforms, associations and industry members are also encouraged as a polycentric way to make decisions, as are the possibilities offered by **RegTech** solutions for the enforcement and control of regulatory obligations. For instance, we recommend below that time limits be imposed in relation to home sharing something that (in addition to possible tax duties) could be directly enforced by the relevant platforms and monitored by public authorities.

Challenges of the Sharing Economy

The sharing economy is a phenomenon that generates manifold opportunities, but also challenges. These in turn weigh on the definition of related public policy strategies. We have carried out a detailed analysis of the sharing economy and the challenges it raises with specific regard to the Luxembourg context. Our analysis has revealed seven distinct elements that require attention.

First, most expressions of the sharing economy could not have emerged without the large quantities of data that are now collected as well as innovative means of storing and processing such data. While these transformations have more broadly enabled the emergence of a data economy with much potential for the European Union's Digital Single Market, they also raise the question of the adequate treatment of **personal data** collected and processed in the sharing economy. The General Data Protection Regulation has many implications for sharing economy platforms and highlights an important point of tension likely to cause debate in the future. Indeed, **the right to data portability**, one of the few

genuine innovations of the GDPR compared to the earlier data protection regime, does not apply to reviews, which bears the risk of creating **lock-in effects** that prevent further innovation in this area. To address the negative consequences of the absence of a right to data portability in connection with user reviews, the Luxembourg government could address this issue at EU level to determine whether legislative intervention is required. Alternatively, we suggest that Luxembourg encourage alternative technical solutions that further this objective, also at EU level.⁶

Second, our analysis engages with the implications of the sharing economy on **consumer protection** law. A 2017 European Commission study⁷ evidences that the emergence and development of online platforms can have detrimental effects on consumers, as shown by the observation that half of the consumers active on online platforms experienced at least one problem in 2016. A detailed analysis of EU consumer protection law examining how current legal frameworks can be applied to these novel business models has unveiled that the application of these existing legal frameworks is prone to generating **unintended effects** in the sharing economy, defeating the original rationale of protecting the weaker party. Indeed, national and European consumer protection law distributes rights and obligations between 'traders' and 'consumers' respectively and it remains unclear who these parties are in a sharing economy context. Furthermore, the 'prosumer' is an actor unknown to current legal frameworks. Luxembourg could **monitor** such developments and engage in related debates at EU level. It is also encouraged that the Luxembourg government **make information available online for users of sharing economy services to consult, and to consider compelling platforms to do the same.**

Third, sharing economy platforms often make use of their own online dispute resolution mechanisms. While this can generate welcome efficiency gains, it may endanger consumer protection. It is suggested that the Luxembourg government **monitors** related developments and **informs consumers about their rights in such scenarios.**

Fourth, sharing economy business models are evaluated from the perspective of **taxation**. At present there remain uncertainties regarding the **fiscal implications of sharing economy transactions** both in relation to direct and indirect taxation. Again, we encourage the Luxembourg authorities to make **information regarding fiscal obligations available online** or to consider cooperating with platforms so that they can **communicate related information directly to users and automatically levy certain taxes.** This can be done at national level and does not presuppose legislative intervention. Some elements, such as whether swaps are subject to VAT or not, should however be addressed at **EU level** and may require legislative action.

Fifth, we focus on the implications of the sharing economy for the **accommodation** sector, an area where sharing has been subject to vivid debate, and the development of which has been significant. **Regulation** can be used as a means of limiting or encouraging sharing practices in the housing sector and many public authorities in the EU have indeed had recourse to that option. **In Luxembourg, there remain uncertainties regarding how existing regulation applies to sharing models in the housing sector. Furthermore, traditional long-term flat or house sharing ('collocation') is discouraged by an outdated legal framework.** As a consequence, it may be opportune for Luxembourg to promote genuine forms of sharing by **providing information** about related legal rights and obligations to citizens and to **update outdated legal requirements to promote some forms of sharing.**

⁶ See, by way of example, <https://solid.mit.edu/>

⁷ European Commission (DG JUST) *Exploratory study of consumer issues on online peer-to-peer platform markets* (2017).

Sixth, we examine the relationship between employment relations and the changing nature of work. As previously mentioned, the sharing economy is estimated to account for 0.45% of Luxembourg total employment, counting the accommodation, transport, finance, and services sectors.⁸ The reliance on platforms to intermediate work forms part of a broader transformation of work and presents risks as well as benefits. Under Luxembourg law, some form of platform-mediated work will be classified as an **employment relationship** and trigger the application of the related legal regime. In other circumstances, self-employed users will be required to obtain an **autorisation d'établissement**. If the Luxembourg government wishes to encourage some forms of sharing, **relaxing these requirements or reducing bureaucratic hurdles in obtaining such administrative permissions (in allowing for them to be obtained online or in a sharing economy one-stop shop)** could be a policy option.

Finally, we assess the **potentially disruptive impact blockchain technology** may come to have on current platform-based sharing economy business models. Our analysis provides an overview of the distinct features of this technology and its potential impact on digital intermediaries, and therefore, the sharing economy. The Luxembourg government could **monitor the technical developments** in this field and identify their likely **impact on the Grand Duchy**. A **pilot project at the intersection of blockchain and the sharing economy** could be a useful step in that endeavour.

Defining policy and regulatory options

On the basis of our analysis of opportunities, risks and challenges as regards the sharing economy, we put forward the following recommendations:

POLICY RECOMMENDATION 1: Providing a clear legal framework for sharing economy activities.

It is recommended that Luxembourg provides a clear framework for sharing economy activities, for instance in including the sharing economy in Luxembourg Law (see the examples of Denmark, Estonia, France, Lithuania, or Greece). It is also recommended that Luxembourg sets clear (quantitative) thresholds to distinguish between peers and professionals.

Public authorities should provide targeted guidance, especially on taxation and national employment rules, to sharing economy platforms and providers. A dedicated public body to oversee the sharing economy (within an existing innovation institution, Chamber of Commerce, or other appropriate organisation for instance) could help centralise the provision of information and guidance, including the creation of a one-stop shop.

In addition, business support services should be targeted to the needs of sharing economy businesses. Support can be non-financial, e.g. the provision of information and guidance, but also financial, for instance specific grant schemes for sharing economy platforms as in the United Kingdom. This includes the provision of financial incentives for the adoption of sharing economy practices that are strong enough to trigger a change in individual behaviour. In Luxembourg, one possibility could be to revise the tax scheme for investment in risk capital to redirect individuals' savings towards crowdfunding. Another tax incentive to foster the adoption of ride sharing for daily commuting would be to integrate a reward for ride sharing, following the Belgian example.

⁸ European Commission (DG GROW) *Study to monitor the economic development of the collaborative economy at sector level in the 28 EU Member States* (2018).

POLICY RECOMMENDATION 2: Choosing the right form of regulation.

We encourage the Luxembourg government to consider what the right scale of regulation is whenever adopting a specific policy and we incorporate related considerations in our recommendations below. Where regulation is adopted, the **right form of regulation** must be carefully chosen. This includes a consideration for co-regulatory solutions that embrace the multi-stakeholder consultations recommended by the Third Industrial Revolution Study and the role of technology as a regulatory tool, an area that we recommend that the Luxembourg government observes more generally.

Beyond this, we also recommend that the Luxembourg Ministry of the Economy encourage sustainable sharing practices in adopting measures designed further the **offer** of such solutions. Sustainable sharing can also be furthered where the Luxembourg government **leads by example** in relying on sharing solutions whenever possible.

POLICY RECOMMENDATION 3: Extending GDPR's provisions on the right to data portability to user reviews in the sharing economy.

The Luxembourg government should take appropriate steps to **evaluate the necessity of an extension of the right to data portability to online reviews** (and other reputational data). This is a policy initiative that should be taken **at EU level**, in coordination with the other EU Member States. It likely **requires legal intervention** in the form of a new EU legal framework or the revision of the GDPR. In addition, technical solutions addressing this limitation should be explored.

POLICY RECOMMENDATION 4: Providing clear guidance to sharing economy providers and consumers as regards platforms' rights and responsibilities.

In light of the **lack of legal clarity** as to which entity in a triangular sharing economy platform is subject to the obligations arising under Luxembourg consumer protection law, we recommend that the Luxembourg government guides consumers by **making online information available** detailing who the likely responsible entity would be in different scenarios. This will allow parties to better account for existing legal obligations and the increase in legal certainty will enhance trust in sharing economy models. This could be carried out at national level and would not require legislative action. Further, guidance offering more concrete criteria to participants in the sharing economy should be considered, as well as **updating legislation** to create specific legally binding criteria.

Alternatively, **platforms could be incentivised to themselves fulfil this role as they have been under French law, and as the EU 'New Deal for Consumers' has suggested**. Where clear guidance is available, platforms could indicate to users whether they act as a trader or consumer under the Luxembourg *code de la consommation* and what related rights and obligations are under EU law. This could be done through legislative reform at national level or in supporting related proposals at EU level. However, considering the prevailing legal uncertainty at this moment in time, informal guidance by Luxembourg authorities should precede this step.

POLICY RECOMMENDATION 5: Monitoring of developments in online dispute resolution.

We recommend that the Luxembourg government **monitors developments in online dispute resolution, particularly where carried out by platforms themselves**,

and, if necessary, contributes to the required legal intervention at **EU level**. In the meantime, **information should be provided to consumers** (online), educating them about their rights in relation to such mechanisms (e.g. as consumers they cannot be deprived of their right to explore conventional judicial avenues). This could be done in the same place where general information about consumer protection law is shared online. This can be realised through the same online information campaigns that we highlighted in Recommendation 4 above and also further below.

POLICY RECOMMENDATION 6: Improving information and compliance to tax obligations in relation to the sharing economy.

In order to increase legal certainty and trust in the sharing economy, citizens need **further information** concerning their respective fiscal obligations and applicable tax rates, particularly under the *Loi du 12 février 1979 concernant la taxe sur la valeur ajoutée*. This information can be provided at national level and does not involve legislative intervention. Related information can either be published by the relevant public authorities or platforms could be incentivised to inform users about their respective fiscal obligations.

Where there remains **uncertainty as regards legal qualification**, such as whether swaps are subject to VAT, the Luxembourg authorities should issue guidance on how VAT law applies to their interactions. Ideally, this would be done at EU level to avoid internal market fragmentation but Luxembourg could also choose to start by clarifying these issues in relation to the *Loi du 12 février 1979 concernant la taxe sur la valeur ajoutée*.

Further, the current position that **cost-sharing ventures** should be subject to the same fiscal treatment as commercial projects may be a factor hindering the development of sustainable sharing solutions.

Further, Luxembourg could explore **fiscal relief measures to promote instances of genuine sharing**, where underused excess capacity, for instance in the accommodation sector, is concerned. European State aid rules must however be accounted for in the design of such measures. Particularly, Luxembourg could qualify cost-sharing ventures (such as carpooling) to not constitute profit-making from a VAT perspective.

In addition, the use of **technological means to ensure fiscal compliance** in the sharing economy, in line with the Estonian model, should be explored.

POLICY RECOMMENDATION 7: Setting market access requirements proportionate to the size and risks generated by the sharing economy.

Market access requirements for collaborative economy providers should be proportionate to the size and risks generated by the sharing economy activity in order not to unduly restrict its development. Because of these specificities of sharing economy business models, some regulations applying to the traditional economy aimed at guaranteeing fair prices, quality of the service, personal safety, or fight against information asymmetry, can therefore be adapted. However, there should be no exemption when the risks for consumers are equal in the sharing economy and the traditional sector, for instance, minimum health and safety and information requirements.

POLICY RECOMMENDATION 8: Promoting sustainable forms of sharing in the accommodation sector.

In order to encourage a sustainable variant of sharing in the accommodation sector, **more information** regarding the related legal rights and obligations must be made available to increase legal certainty and trust. This can be done by the relevant **national authorities or through the involvement of platforms**, which can carry out this information-supplying role on a case-by-case basis.

In particular, there is uncertainty as to whether **registration duties** under Article 18 of the Law of 17 July 1960 apply to sharing economy transactions. We recommend that the Luxembourg government specify that point. It could decide to either create a *de minimis* threshold or use existing law as the basis for registration duties coupled with time limits to encourage the sustainable development of sharing practices in the accommodation sector. **Legal certainty should also be removed regarding the applicability of the *taxe de séjour* in municipalities that levy it.**

There are two further concrete steps that the Luxembourg government could adopt in relation to the promotion of sustainable forms of sharing in the accommodation sector. First, conventional **long-term flat or home sharing** necessitates appropriate legal recognition in Luxembourg, which is not currently the case. This could be achieved through a reform of the *Loi du 21 septembre 2006 sur le bail à usage d'habitation et modifiant certaines dispositions du Code civil*.

In addition, the government could consider devising time limits for **short-term home sharing**, for example by allowing residents to sublet their place for a short period of time, such as when they are away on holiday.

POLICY RECOMMENDATION 9: Relaxing or facilitating requirements for platform workers below a certain threshold.

In order to promote a sustainable use of platforms as intermediaries for work, the Luxembourg government could adopt a number of options. It could **provide thresholds as to when a person merely acts as a peer on an occasional basis and relax some of the requirements related to *autorisations d'établissement*** under the *Loi du 2 septembre 2011 réglementant l'accès aux professions d'artisan, de commerçant, d'industriel ainsi qu'à certaines professions libérales* for those that qualify as peers.

Further, the establishment of **platform-based worker cooperatives** could be explored in a pilot project. Blockchain technology, examined just below, could provide some of the necessary technical underpinnings for such a project.

POLICY RECOMMENDATION 10: Observing evolutions of blockchain technologies with a pilot project in the sharing economy.

Given the potentially disruptive impact of blockchain technology on many technologies and sectors, Luxembourg should take the necessary steps – such as the **creation of a task force** – to observe evolutions in this domain and evaluate how related developments may impact Luxembourg. As a way to experiment with this technology, **a pilot project in the domain of the sharing economy could be envisaged.**

CHAPTER 1: What is the Sharing Economy?

As the 'sharing economy' continues to develop apace and the number of platforms and business models proliferates, so does the terminological puzzle that surrounds this space. **Today, the sharing economy is described by many different, often overlapping and sometimes contradictory terms.** For instance, to some, 'the sharing economy' and 'the gig economy' are synonymous whereas, as we underline further below, this is not the case.

The first step in any analysis of the challenges and opportunities created by the sharing economy must be to clarify the most prominent concepts and the underlying business models and behaviours.

This chapter concludes with a pragmatic definition of the sharing economy that is suited to the context of Luxembourg and the Ministry of the Economy's priorities.

I. Unpacking the platform economy: a guide to terminology

As indicated above, the plethora of platforms that are often grouped loosely under the 'sharing economy' are, in actual fact, quite different from one another in terms of the value they create and in the way that they monetise this value. As a result, they call for a policy response that reflects the risks and opportunities that they create.

A. The Sharing Economy

First, in the sharing economy, the focus lies on the sharing of underutilised assets, whether monetised or not and whether mediated through a platform or not. This concept is therefore closely linked to the wider aims of 'resource efficiency', 'sustainability' and 'community'.⁹ The sharing economy has the following three key features:

1. **Sharing of underutilised assets**
2. **Sharing is monetised or not**
3. **Sharing is enabled through a platform or not**

BlaBlaCar is an example of a sharing economy platform.¹⁰ It is essentially an online marketplace for carpooling, which uses an online platform to match individuals travelling from A to B in their own car with passengers that are interested in making the same journey. The ride is monetised to the extent that the passenger contributes to the cost of the journey and pays a service fee to the platform.¹¹ The driver is not, however, directly paid for her services.

Another example of the sharing economy would be a company renting out extra office or living space to others looking for a place to work or stay. **Airbnb** is probably one of the most well-known examples of the sharing economy (although it is worth noting that many 'traditional' players, such as Booking.com now offer essentially the same service). Its platform matches surplus accommodation space with those looking for short-term accommodation.¹² The underlying idea is not new, as it in part offers a service long provided by the *Ferienwohnungen* economy. The example of Airbnb however also illustrates that the same economic operator can offer some services that qualify as part of the sharing economy whereas others do not. For instance, full-time corporate listings are

⁹ April Rinne, "What exactly is the sharing economy?" *World Economic Forum* (13 December 2018) <https://www.weforum.org/agenda/2017/12/when-is-sharing-not-really-sharing>

¹⁰ <https://www.blablacar.fr/>

¹¹ <https://www.blablacar.co.uk/about-us/terms-and-conditions>

¹² <https://www.airbnb.com>

not part of the sharing economy (as they are not underutilised assets) but they should rather be seen as elements of the platform economy and the access economy.

In Luxembourg, there are a number of ventures that form part of the sharing economy, such as **DingDong**, which allows users to share spare goods with others.¹³ At the same time, there seems to be significant potential to further unlock the sharing economy in Luxembourg. Indeed, a recent study by a Swedish think tank reveals that Luxembourg ranks only in 211th place of all countries surveyed with regard to participation in the sharing economy.¹⁴ This is also in line with a 2018 Eurobarometer survey which found that only 22% of Luxembourg residents have ever used a collaborative platform (23% EU average)¹⁵ with transport and accommodation being almost equally prevalent at 13% and 12% respectively. Food related services had been used by 8% of respondents but other services (household, finance, professional services) were much less popular (<4%). While these numbers remain rather small, it should be noted that they represent a marked increase over the previous Eurobarometer survey which found, for instance, that only 13% of Luxembourg residents had ever used collaborative platforms. This represents an increase in usage of 69% over just two years.

B. The Collaborative Economy

The European Commission refers to the 'collaborative' economy instead of the 'sharing' economy,¹⁶ and it characterises it by the fact that platforms offer users **temporary usage of goods and services**.

Whereas this definition partially overlaps with sharing economy practices, it is also broader because it (a) doesn't require that the goods and services that are shared are underutilised; (b) the existence of an online platform is a necessary prerequisite to form part of the collaborative economy. In the collaborative economy (as in the sharing economy), economic transactions *'generally do not involve a change of ownership and can be carried out for profit or not-for-profit'*.¹⁷

C. The Access Economy

In the access economy, **fast and convenient access to goods and services is offered by online intermediaries**.¹⁸ The mantra of the access economy is that of '**access over ownership**'.¹⁹ This overlaps with the features of the sharing economy, but sharing is not a prerequisite.

In the online access economy, platforms essentially enable fast access to the specific good/service that is desired. The user is interested in using, rather than owning, the good.

Examples of the access economy include the car sharing and bike sharing arrangements that have proliferated in European cities over the past decade including as Vel'ok or Carloh in Luxembourg.²⁰ These are not part of the sharing economy since the bicycles and cars are part of a fleet acquired specifically for these purposes and therefore not an underutilised asset. Other examples of the access economy include shared working spaces, such as WeWork, which make available office space that can be rented on an hourly, daily,

¹³ <https://dingdong.lu/>

¹⁴ <https://beta.timbro.se/allmant/timbro-sharing-economy-index/>

¹⁵ https://data.europa.eu/euodp/data/dataset/S2112_438_ENG

¹⁶ This terminology has its origins in Kathleen Stokes, Emma Clarence, Lauren Anderson, April Rinne. *Making Sense of the UK Collaborative Economy* (Nesta, 2014). Available at: <https://www.nesta.org.uk/report/making-sense-of-the-uk-collaborative-economy/>

¹⁷ European Commission (2016). A European Agenda for the Collaborative Economy. COM (2016) 356 final.

¹⁸ Jeremy Rifkin, *Age of Access: The New Culture of Hypercapitalism, Where All of Life is a Paid-for Experience* (Tarcher/Putnam; New York, 2001).

¹⁹ April Rinne, "What exactly is the sharing economy?" *World Economic Forum* (13 December 2018)

<https://www.weforum.org/agenda/2017/12/when-is-sharing-not-really-sharing>

²⁰ <http://www.velok.lu/>; <https://www.carloh.lu/en/>

weekly or monthly basis. Again, the difference with the office-sharing example mentioned above is that there is no sharing of a underutilised asset because these platforms acquire office space specifically to rent it out to others.²¹

D. The Gig Economy

The 'gig economy' refers to the use of online platforms to source small (sometimes on-demand) jobs ('gigs').²² The 'Freelance Economy' is a synonym that is often used although in this case, the existence of an intermediating platform is not a prerequisite.²³

An example of the gig economy is Taskrabbit, a platform that matches those that need help with a particular task and individuals looking for 'gigs'.²⁴ Although still relatively small, the gig economy has been growing rapidly and it is often seen as part of a broader shift in the nature of work. In the United Kingdom alone, 1.1 million people are considered to partake in the gig economy.²⁵ While gig work can be of a precarious nature, it doesn't have to be. Indeed, increasingly, highly educated professionals offer their services through platforms on a flexible basis (such as on Legably, which focuses on legal services).²⁶

The multifaceted nature of online platforms

As already mentioned above, it is important to note that **a single platform can, at the same time, be part of different kinds of 'economies'**. A few examples serve to illustrate that point.

Uber, the ride sharing platform, offers services that fall within the access or sharing economy categories:

- UberX allows a car to be booked by one person using cars provided by an Uber subsidiary, Xchange Leasing, for the specific purpose of driving for Uber.²⁷
- UberPop on the other hand allows genuine ride sharing between multiple unconnected passengers for the purpose of increasing the utilisation of the existing fleet of private cars.²⁸

Thus, Uber can be seen as part of the gig economy, the access economy and the platform economy whereas Deliveroo (a food delivery platform) falls within the access economy and the gig economy. Airbnb is part of the sharing economy when underutilised residential space is shared on a temporary basis whereas full-time corporate listings should be seen as part of the platform economy and the access economy.

The multi-faceted nature of online platforms means that policymakers need to think about 'regulating behaviour' at the level of individual transactions rather than 'regulating platforms'. Such a more nuanced approach allows regulators to

²¹ <https://www.wework.com/>

²² Brhmie Balaram, Josie Warden and Fabian Wallace-Stephens, *Good Gigs. A fairer Future for the UK's Gig Economy* (Royal Society of the Arts 2017) <https://www.thersa.org/globalassets/pdfs/reports/rsa_good-gigs-fairer-gig-economy-report.pdf>

²³ <https://www.weforum.org/agenda/2017/12/when-is-sharing-not-really-sharing>

²⁴ <https://www.taskrabbit.com/>

²⁵ Brhmie Balaram, Josie Warden and Fabian Wallace-Stephens, 'Good Gigs. A fairer Future for the UK's Gig Economy', Royal Society of the Arts (2017), <https://www.thersa.org/globalassets/pdfs/reports/rsa_good-gigs-fairer-gig-economy-report.pdf>

²⁶ <https://www.legably.com/>

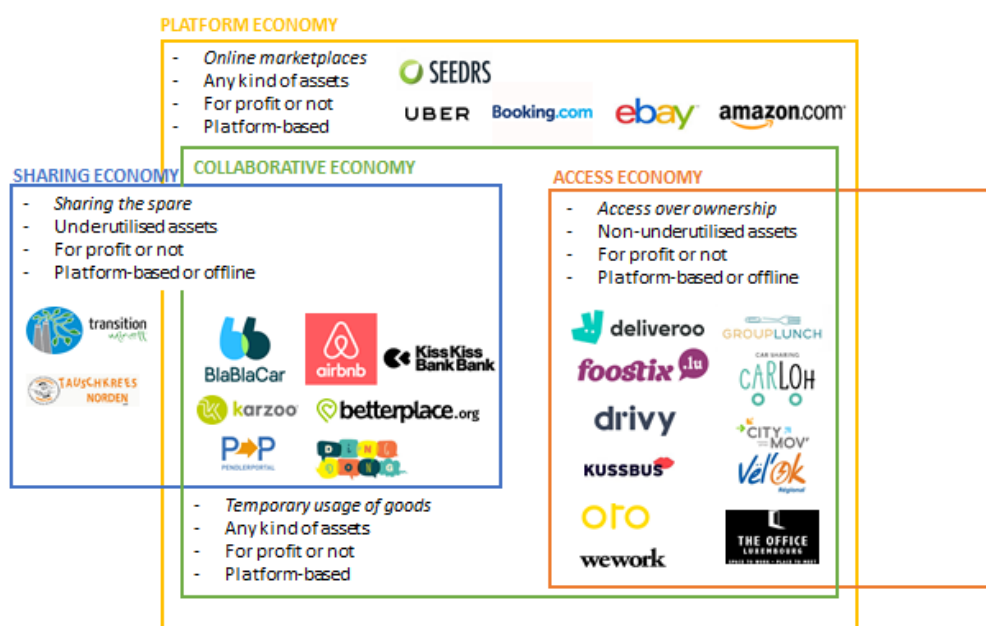
²⁷ Daniel Etherington, "Uber is shutting down its Xchange vehicle leasing business" *Techcrunch* (18 October 2018). <<https://techcrunch.com/2017/09/27/uber-is-shutting-down-its-xchange-vehicle-leasing-business/>>

²⁸ Note that UberPop has been banned in many place around Europe, among which Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, the Netherlands, Portugal, Spain and Sweden. See European Commission (DG GROW), *Study to monitor the business and regulatory environment affecting the collaborative economy in the EU* (2018).

ensure that society can capitalise on the innovation generated by online platforms while minimising risks and managing any negative social or economic impacts.

The discussion in this section is summarised in the figure below. The sharing economy encompasses online and offline transactions that are focused on the use of underutilised assets. The access economy refers to assets that are not underutilised but that are produced or acquired specifically for the purpose of the transaction. Collaborative economy transactions include online transactions in the sharing and the access economy, where goods and services are used temporarily. As explained above, the gig economy refers to a particular use of online platforms to intermediate jobs, and can be part of all three types of economies referred below.

Figure 4 : Situating the sharing economy



Because the sharing economy trades underutilised assets rather than brand new goods and services, transactions are often conducted between peers, i.e. a private individual offers goods and services to another private individual. It is not always the case however, and in some occasions sharing economy transactions can also involve businesses. For instance, crowdfunding platforms such as KissKissBankBank allow private individuals to donate money to other private individuals but also small businesses. Finally, some sharing economy platforms (e.g. Airbnb) now allow professional service providers to offer goods and services, which makes the transaction very similar (if not identical) to a classic business-to-consumer one.

From a policy perspective, the question whether the service provider is a peer or a professional is an important factor in determining which regulatory obligations should apply to the sharing economy, i.e. whether there should be lighter rules than the ones applying to conventional businesses. Some countries have used thresholds (e.g. the amount of revenue gained from the activity, or the frequency of the activity) to make this distinction or whether providers need to obtain a professional authorisation or license to conduct the activity, as is the case for Uber drivers in most countries. In its Communication on "A European Agenda for the collaborative economy", the European Commission defines a peer as "a private individual offering services on an occasional basis" and a professional

as a “service provider acting in their professional capacity”.²⁹ This could serve as a general guiding principle for the creation of more precise delimitations at national level.

II. The role of digital platforms

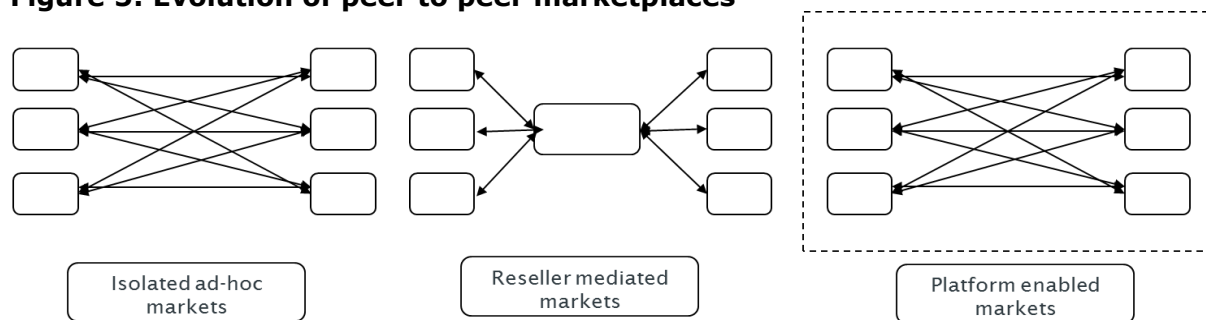
Historically, what we now refer to as the sharing economy has always existed. The Middle Age concept of ‘common land’ is a case in point, as are newer expressions of business models that we might not necessarily associate with the sharing economy but which nonetheless share its characteristics such as the ‘Lesezirkel’ model.

As Schor and Fitzmaurice have pointed out³⁰, peer-to-peer interactions evolved from isolated marketplaces (e.g. informally hiring a babysitter; using a self-employed hairdresser or booking holiday rental homes through catalogues and the phone)³¹ to digitally-enabled markets through platforms. Before online platforms, matches and transactions were not mediated by third-party players or controlled by digital algorithms. They were random, ad hoc, highly dependent on a time, a physical place and a situation, and, therefore, associated with high information asymmetries, and high information search and transaction costs.

In the last 10 years, digitalisation has allowed the practice of sharing to be scaled beyond what was previously possible. Online platforms have become a catalyst for the explosive growth of the sharing, collaborative, gig and access economies. Platforms act as intermediaries between providers and consumers and they facilitate individual transactions³² through a combination of search/matchmaking, trust building (e.g. reputation systems), and redress possibilities (e.g. dispute resolution).

The primary success driver of online platforms is the radical reduction of transaction and coordination costs³³ in matching supply and demand, as illustrated in the figure below.

Figure 5: Evolution of peer to peer marketplaces



Source: Adapted from Salminen (2014) 34

²⁹ European Commission (2016). A European Agenda for the Collaborative Economy. COM (2016) 356 final.

³⁰ Juliet B. Schor, Connor J. Fitzmaurice “Collaborating and connecting: The emergence of the sharing economy” *Handbook on research on sustainable consumption* (eds. L. Reisch and J. Thøgersen. Cheltenham, UK: Edward Elgar 2015).

³¹ Joni Salminen *Startup dilemmas - strategic problems of early-stage platforms on the Internet* (Publications of Turku School of Economics, Series A. Turku, Juvenes Print 2014).

³² Bertin Martens ‘An Economic Policy Perspective on Online Platforms’ (*JRC Technical Reports* 2016).

³³ Andrei Hagiu, Julian Wright “Do you really want to be an eBay” *Harvard Business Review* 91 (3) (2013) 102–108.

³⁴ Joni Salminen *Startup dilemmas - strategic problems of early-stage platforms on the Internet* (Publications of Turku School of Economics, Series A. Turku, Juvenes Print 2014).

Online platforms are a relatively new phenomenon, which can be hard to qualify from a legal and economic perspective. This is, on the one hand, due to the fact that they have **characteristics of both a firm and a market**. They act as online intermediaries, as pure market makers. Platforms however also present typical features of traditional providers of goods and services.³⁵ Indeed, platforms often offer multiple services at once, some of which are pure intermediation whereas others are a classical provision of goods or services or even payment services.³⁶ Airbnb, one of the best-known sharing economy platforms first emerged as an entity primarily focused on intermediating between hosts and guests; yet has over time added more and more active services to its business model. Under the Airbnb Plus model, it now for instance offers accommodation that must meet a higher number of criteria.³⁷ The platform Couchsurfing which used to focus solely on matchmaking today offers users a premium “verified” user account against payment.³⁸

Often the development of such platforms is characterised by “network effects”, where the value of the service provided by the platform increases with the number of users of this service. Platforms often use self-regulatory mechanisms designed to create trust among the peer providers and consumers who engage in transactions with one another (e.g. peer reviews and ratings, user identity verification mechanisms, dispute resolution mechanisms proper to the platform).³⁹

The process of value creation of online platforms is different than in traditional business models. Online platforms create value because they bring together providers and consumers and thereby reduce transaction costs and generate positive indirect networks effects (e.g. users of one group benefit from an increased presence of number of users from a different group).⁴⁰

The platforms then monetise the value created during the transaction in different ways:⁴¹

- **Transaction / subscription-fee based models:** such platforms offer a wide range of services with a focus on pre-transaction services (e.g. verification of user information, peer review and reputation systems, etc.). Their aim is to encourage a maximum number of transactions by offering a wide range of well diversified services, in function of their level of maturity and financial solidity.
- **Advertising-based models:** the activity of these platforms focuses more on post-transaction services (e.g. insurance and guarantees, complaints handling system) and less on trust-building. They tend to adopt more reactive, rather than proactive approaches to potential user issues and problems.
- **Data use and re-use:** platforms using this model offer a wide range of services and they often combine this model with either advertising, transaction fees or subscriptions fees.

³⁵ On this, see further Case 434/15 *Uber Spain* (2017) EU:C:2017:981. For a comment, see Michèle Finck, Distinguishing internet platforms from transportation services (Common Market Law Review 2018).

³⁶ See, by way of example the Facebook marketplace and Instagram Shoppable Posts.

³⁷ See further <https://www.airbnb.com/plus/host/requirements>

³⁸ <https://blog.couchsurfing.com/new-and-improved-verified-membership/>

³⁹ See also OECD, Protecting consumers in peer platform market (2016); European Commission (DG JUST), *Exploratory study of consumer issues on online peer-to-peer platform markets* (2017).

⁴⁰ Bertin Martens 'An Economic Policy Perspective on Online Platforms' (JRC Technical Reports 2016).

⁴¹ European Commission (DG JUST), *Exploratory study of consumer issues on online peer-to-peer platform markets* (2017).

- **Add-on services fees:** fees charged by platforms for add-on services to the transaction itself, such as promoted listings, professional photos, promotion features for listings, options to further verify identity, delivery, insurance, etc.

Each platform can employ several of these monetisation models at once. For instance, most platforms collect user data which they use to develop their own services and, sometimes sell on to third parties and advertisers. Furthermore, over time, platforms often change their primary revenue model as they grow. The largest and most developed platforms in the sharing economy space charge transaction fees, combined with fees for specialised services (e.g. Airbnb offers to take professional pictures of listings) or advertising.

III. Different types of transactions in the sharing economy

As the discussion above has shown the sharing economy involves a wide range of different transactions modes and monetisation models. Some of these do not involve an exchange of money (e.g. sharing, swapping, or lending) while others do (e.g. renting). The variety of transaction types and monetisation models in the sharing economy is represented in the Figure below.

Figure 6: Monetisation models and transaction types in the sharing economy



IV. The state of the sharing economy in Luxembourg

A. Economic development

According to an EU study on the economic development of the collaborative economy, the collaborative economy accounts for 0.45% of the national employment and 0.44% of the national GDP, which is above the EU average.⁴²

Our study has counted 44 main active platforms in Luxembourg, 34 of them being part of the sharing economy, and 10 in the access economy. It is worth noting that our analysis did not include investment platforms⁴³ such as Seedrs or Bee Invested as they mainly consist of classic investment schemes without a sharing element. However, reward-based crowdfunding platforms such as KissKissBankBank, Indiegogo or Kickstarter, have been included since they involve a swapping of asset between both parties, i.e. the exchange of money against a reward. Platforms intermediating the re-selling of goods, such as eBay, or LuxBazar and YourShop in Luxembourg, were not counted either, as they are not based on a business model that involves 'sharing'. The table below provides a complete list of the sharing economy and access economy platforms active in Luxembourg identified in this study.

Table 1: Platforms that are active in Luxembourg

Sector	Platform	Website	Business model	Origin
Accommodation	Abritel	https://www.abritel.fr	Sharing economy	International
Accommodation	Airbnb	https://www.fr.airbnb.be/luxembourg/	Sharing economy	International
Accommodation	Appartager	https://www.appartager.lu/	Sharing economy	Europe
Services	Batmaid	https://batmaid.lu/fr/	Sharing economy	Europe
Accommodation	BedyCasa	https://fr.bedycasa.com/	Sharing economy	Europe
Finance	Betterplace	https://www.betterplace.org/	Sharing economy	Europe
Accommodation	Bird Office	https://www.bird-office.com/	Sharing economy	Europe
Transport	BlaBlaCar	https://www.blablacar.fr	Sharing economy	Europe
Transport	Bring4You	https://bring4you.com/	Sharing economy	Europe
Services	Butlerandmore	https://www.butlerandmore.lu/	Sharing economy	Domestic
Transport	Carloh	https://www.carloh.lu/fr/	Access economy	Domestic
Transport	Carvroom	https://www.carvroom.com/	Sharing economy	Domestic
Transport	CityMov	http://www.citymov.lu/particuliers	Access economy	Domestic
Transport	Copilote	https://www.copilote.lu/	Sharing economy	Domestic
Accommodation	Couchsurfing	https://www.couchsurfing.com/	Sharing economy	International
Goods	Ding Dong	https://dingdong.lu/	Sharing economy	Domestic

⁴² European Commission (DG GROW), *Study to monitor the economic development of the collaborative economy in the EU-28* (2018).

⁴³ Investment platforms allow individuals to invest in a business in return for shares in the company. This type of funding is traditionally used to launch start-ups or to provide funds for a new business venture by an established company. Money is provided in return for the ownership of a small part of the business.

Transport	Drivy	https://www.drivy.com/	Access economy	Europe
Transport	Eurostop	https://www.eurostop.com/	Sharing economy	Europe
Transport	Flex	https://flex.lu/	Access economy	Domestic
Transport	Footix	https://www.footix.com/fr	Access economy	Domestic
Transport	Go2Uni	http://go2.uni.lu/	Sharing economy	Domestic
Finance	GoFundMe	https://uk.gofundme.com/	Sharing economy	Europe
Transport	GroupLunch	https://grouplunch.lu/	Access economy	Domestic
Accommodation	GuestToGuest	https://www.guesttoguest.com	Sharing economy	Europe
Accommodation	HomeExchange	https://www.homeexchange.com	Sharing economy	International
Finance	Indiegogo	https://www.indiegogo.com	Sharing economy	International
Transport	Karzoo	http://www.karzoo.lu/	Sharing economy	Europe
Finance	Kickstarter	https://www.kickstarter.com/	Sharing economy	International
Finance	KissKissBankBank	https://www.kisskissbankbank.com/fr	Sharing economy	Europe
Transport	KussBus	https://kussbus.lu/fr	Access economy	Domestic
Accommodation	LoveHomeSwap	https://www.lovehomeswap.fr/	Sharing economy	Europe
Services	Minijobs	http://www.minijobs.info/	Sharing economy	Domestic
Services	Mybnb	https://www.mybnb.lu/	Sharing economy	Domestic
Services	Partimerz	https://parttimerz.com/	Sharing economy	Europe
Services	Pawshake	https://fr.pawshake.lu/	Sharing economy	International
Transport	Pendlerportal	http://www.pendlerportal.de/	Sharing economy	Europe
Transport	Ride2Go	https://www.acl.lu/Ride2Go?lang=en-us	Sharing economy	Europe
Services	Skilltroc	https://www.skilltroc.com/	Sharing economy	Europe
Transport	SwopCar	https://www.leaseplan.lu/page/corporate-car-sharing	Access economy	Domestic
Services	Tauschkrees	http://www.tauschkrees-norden.lu/index.php	Sharing economy	Domestic
Accommodation	The Office	http://theoffice.lu/	Access economy	Domestic
Services	Transition Minett	https://www.transition-minett.lu/	Sharing economy	Domestic
Finance	Ulule	https://fr.ulule.com/	Sharing economy	Europe
Transport	Vel'ok	http://www.velok.lu/	Access economy	Domestic
Transport	Zenon Car	https://zenoncar.com/fr/	Sharing economy	Domestic

Among the platforms above, 20 originate in Luxembourg. European platforms are mainly from neighbouring countries, e.g. France (BedyCasa, BlaBlaCar), Germany (PendlerPortal) or Belgium (Karzoo). Some platforms (e.g. Batmaid) also originate in Switzerland. Switzerland (Batmaid).

The main platforms in the accommodation sector are Airbnb and Appartager (HomeAway group), both providing short-term rental services. Some platforms allow the sharing of office space or coworking, i.e. Bird Office (UK) and The Office (Luxembourg). Finally, some platforms allow the exchange of private houses, such as Couchsurfing, GuestToGuest and LoveHomeSwap, but they are secondary players compared to short-term rental platforms.⁴⁴

There is general agreement among stakeholders that the collaborative accommodation sector in the country has experienced recent growth. Fondation IDEA has counted a 30% increase of listings on Airbnb between 2017 and 2018, from 690 to 906.⁴⁵ The increase of the collaborative accommodation offer has also been confirmed by HORESCA, which counted 790 homeowners on Airbnb (who can have multiple listings on the website).

The collaborative transport sector counts 19 platforms, with the majority of them (12) originating in Luxembourg. Most of them are car sharing or bike sharing schemes with an existing fleet of vehicles (therefore part of what is defined as the access economy). Some platforms also offer delivery of food or groceries (GroupLunch, Foostix). Going back to the sharing economy, there are nine ride sharing platforms, three of them originating in Luxembourg (Copilote, Zenon Car, and Go2Uni), and one peer-to-peer car sharing platform (Carvroom). It is worth noting that the Ministry of Sustainable Development and Transport has launched its own ride sharing platform (Copilote).

Another important sector is the exchange of goods and services, with ten platforms active in the country. They mainly consist of freelancing platforms (e.g. Skilltroc, Partimerz, Minijobs) and platforms for odd jobs (e.g. Batmaid for housecleaning, Pawshake for pet sitting, etc.) Five of these platforms originate in Luxembourg. Two of them, Tauschkrees and Transition Minett, allow the exchange of goods and services at local level and one platform, Ding Dong, intermediates the exchange of goods.

Platforms in the finance sector are less numerous, and they all originate outside Luxembourg (e.g. KissKissBankBank, Indiegogo, Kickstarter, GoFundMe, Ulule, and Betterplace), which shows a relative difficulty for the sector to establish itself. According to Isabelle Goubin, Ministry of Finance, this can be attributed to the small number of Luxembourg inhabitants, which implies a small number of lenders for the projects, and the lack of harmonisation of European legislation regulating crowdfunding, which prevents Luxembourg-based platforms from scaling up and operating across borders.⁴⁶ A number of platforms originating in Luxembourg, such as Fansnextdoor.com, or Nubs.lu, have shut down due to an insufficient number of users.

B. Government support and policies

The government of Luxembourg has set up a favourable environment for start-ups and innovative services. The Chamber of Commerce offers training and advice which also benefit sharing platforms, notably through the House of Entrepreneurship.⁴⁷ The House of

⁴⁴ Interview with HORESCA, 07/09/2018; Interview with Fondation IDEA and the Chamber of Commerce, 20/09/2018.

⁴⁵ Interview with Fondation IDEA and the Chamber of Commerce, 20/09/2018.

⁴⁶ Interview of Isabelle Goubin retrieved in: "Crowdfunding: Le nouvel Eldorado ?" (*Merkur* 2015).

⁴⁷ <http://www.houseofentrepreneurship.lu/nos-missions/>

Startups, the Chamber of Commerce's start-up incubator, has been launched in June 2018.⁴⁸

Specifically in relation to the collaborative economy, interviewees indicate a clear willingness by Luxembourg authorities to become better informed about, and to encourage the development of, the sharing economy. In 2016, the Ministry of Economy launched the "Third Industrial Revolution Strategy"⁴⁹ aimed at further engaging the country with the digital economy. As part of this initiative, a working group on the collaborative economy, bringing together public authorities and stakeholders was established to reflect on possible regulatory options.

However, despite these initiatives, so far the government of Luxembourg has issued little or no guidance on sharing platforms, taxation rules, necessary licenses, insurance requirements and applicable legislation, and there is a need for better understanding of the sector and its business and regulatory implications. This aspect will be further developed in Chapter 4.

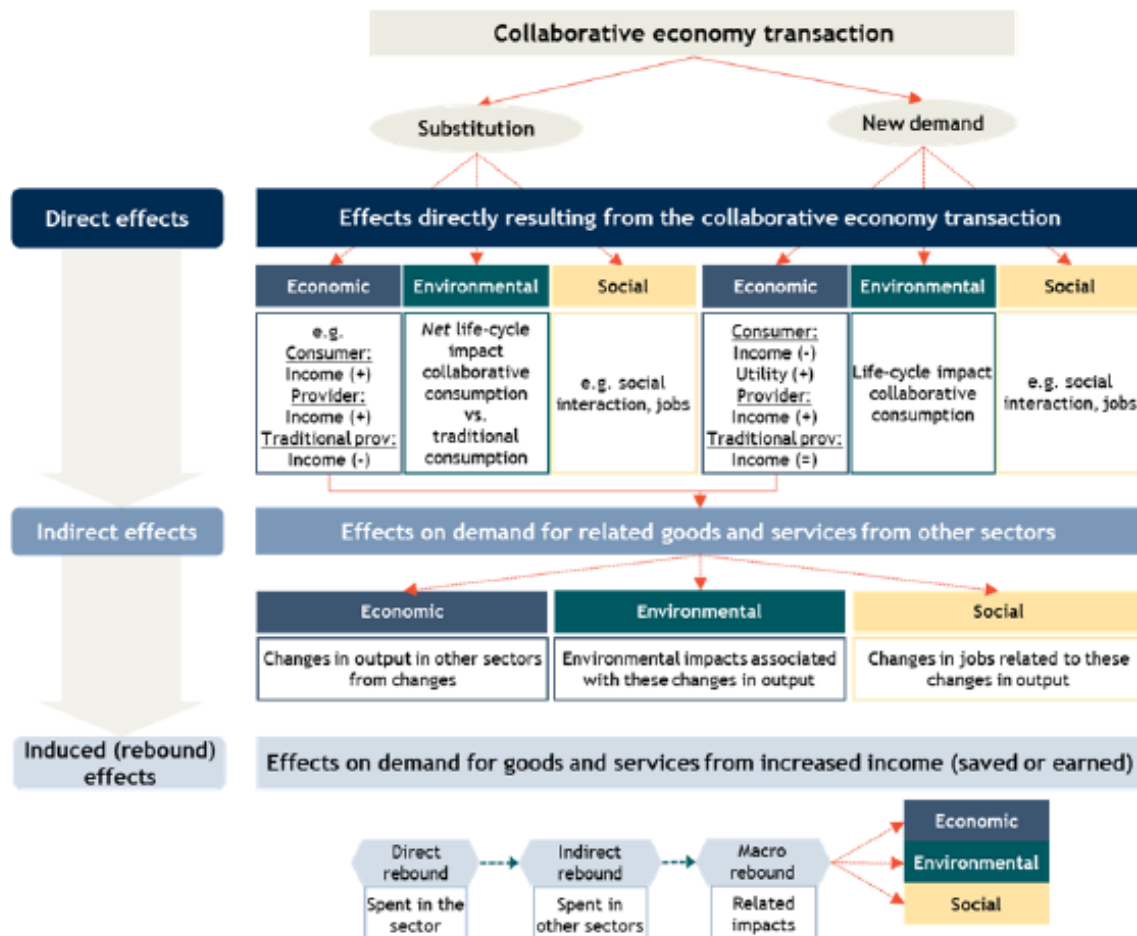
V. Modelling the impact of the sharing economy

The figure below presents a conceptual framework for understanding the potential impacts (risks and benefits) of the sharing economy in Luxembourg. Impacts occur at the level of each transaction and they are determined (as set out above by the transaction type and the monetisation model).

The impact depends on whether the sharing economy transaction substitutes a transaction in the traditional economy or whether it constitutes genuinely new (additional) demand. Flowing from this distinction, economic, environmental and social impacts materialise directly from the transaction (e.g. consumer and provider income, income effects for transitional providers, life cycle impacts, employment and social interactions). The direct economic impacts then also lead to second order (indirect impacts) on other sectors which reinforce the direct economic, environmental and social impacts. Finally, there may be a so-called rebound effect as any income earned through sharing economy transactions is spent on other goods and services. The ultimate economic, environmental and social impact of each sharing economy transaction thus depends also on how resulting economic gains are spent.

⁴⁸ <http://www.cc.lu/actualites/detail/decouvrez-en-avant-premiere-la-house-of-startups/>

⁴⁹ <http://www.troisiemerevolutionindustrielle.lu/etude-strategique/>

Figure 7: Impacts of the sharing economy

Source: *Environmental potential of the collaborative economy, 2017*

As discussed in a recent study for the European Commission produced by VVA (in collaboration with others), the vast amount of literature discussing the economic, social and behavioural impacts of the collaborative economy, is often based on self-reported figures by platforms or by 'traditional' industries and there is little independent empirical analysis. Chapter 2 and 3 below discuss some of the main opportunities and risks of the sharing economy in Luxembourg.

CHAPTER 2: The Business and Regulatory Environment for the Sharing Economy in Luxembourg

This chapter presents the policy context surrounding the sharing economy in Luxembourg. It describes the main authorities and organisations in charge of regulating and developing the sector in the country, as well as the main features of the business and regulatory environment affecting its development. While there is no regulatory framework specific to the sharing economy, there is a willingness by public authorities to understand the phenomenon and to foster its development by mitigating potential negative impacts. However, this varies depending on the sectors considered and further efforts are needed to adapt the regulatory tools to the needs of sharing economy platforms and users.

I. Shaping the business and regulatory environment of the sharing economy in Luxembourg

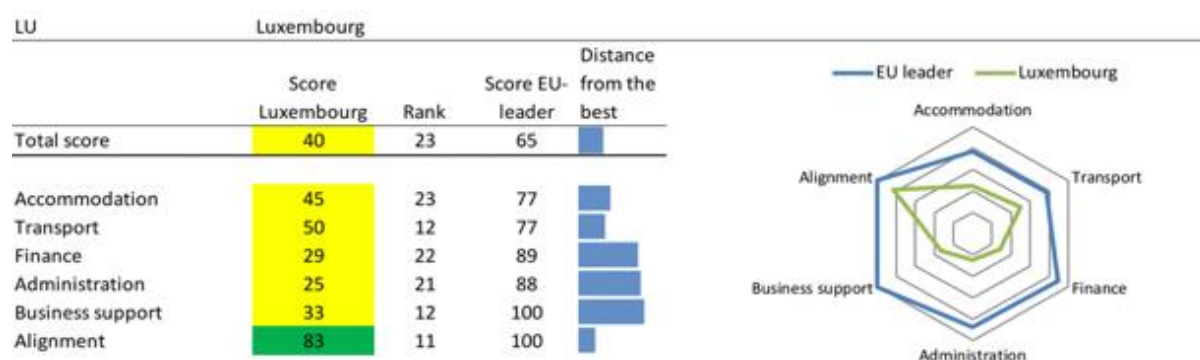
A few elements of this chapter draw upon a European Commission (DG GROW) study on the business and regulatory environment affecting the collaborative economy.⁵⁰ The study elaborates indicators to measure the state of openness of the business and regulatory environment in the 28 EU Member States, among which Luxembourg, across the three sectors of accommodation, transport and finance. The study also assesses whether public authorities have taken measures to reduce administrative burdens for sharing economy platforms and providers, as well as support services to facilitate access to the sharing economy markets, which ultimately encourages the development of the collaborative economy.

There is no specific legal framework for the sharing economy in Luxembourg. Sharing economy services fall within the scope of the existing legislation covering the different sectors. The study, the results of which are integrated in the EU Single Market Scoreboard for the collaborative economy⁵¹, ranks Luxembourg 23 out of the 28 EU Member States in terms of friendliness of the business and regulatory environment for the sharing economy. The country scores best in the transport and accommodation sector, and above average in terms of availability of business support services compared to other EU countries. Luxembourg has also a good score in the alignment indicator, which means that regulations are the same everywhere in the country – which can be explained by its small size.⁵²

⁵⁰ European Commission (DG GROW) *Study to monitor the business and regulatory environment affecting the collaborative economy in the EU-28* (2018).

⁵¹ http://ec.europa.eu/internal_market/scoreboard/performance_per_policy_area/collaborative-economy/index_en.htm

⁵² EU leaders in transport are Lithuania and Estonia; Greece and Finland in accommodation; in finance Portugal; Belgium in public administration; United Kingdom in business support; Denmark, Estonia, Finland, Ireland, Lithuania, Malta, Poland, Romania, Sweden, Slovakia. See the full results of the study: <https://publications.europa.eu/en/publication-detail/-/publication/79bee7ad-6d22-11e8-9483-01aa75ed71a1/language-en/format-PDF/source-71608133>

Figure 8: The regulatory and business environment affecting the sharing economy in Luxembourg

Source: European Commission, DG GROW.

Over the past years, the government and public authorities have been committed to developing the sharing economy in Luxembourg. However, there are some regulatory barriers preventing the development of the sharing economy in some sectors.

Although there is no specific legal framework for the sharing economy in Luxembourg, some features of the business and regulatory environment applying to the conventional sector are relevant to sharing economy business models. This section will briefly introduce them prior to the legal analysis in the next section.

A. At sector level

In Luxembourg the sharing economy is regulated by the legislation applicable to the conventional sector. The sharing economy has not been included as a specific sector in the national framework and, contrary to some European countries⁵³, there are no definitions for sharing economy activities in the national legislation (i.e. no definition for car sharing, ride sharing, crowdfunding). The presence of definitions for sharing economy activities in the national legislation has been acknowledged as favourable to the development of the sharing economy as it gives legal clarity as regards the rights and obligations of platforms and providers. As pointed out in the 2016 Communication on a European agenda for the collaborative economy⁵⁴ and evidenced by the DG GROW study⁵⁵, national legislation does not often take into account the specificities of collaborative business models, which raises questions for collaborative platforms and providers as to whether and how far such regulations apply to them.

Similarly, Luxembourg legislation does not differentiate between peer and professional activity nor specify which regulations apply to which type of provider. As long as an individual is making profit out of their activity, they are considered as a professional and must comply with the rules shaped for the conventional sector. The distinction between peer and professional activity and the establishment of more flexible rules for peers have been found as favourable for sharing economy activities, according to the same study.⁵⁶ An effective method for making this distinction is the definition of clear thresholds, above which the provision of an activity is considered to be a professional activity. The European

⁵³ Denmark, France, Estonia and Lithuania have definitions for car sharing and ride sharing in the Transport Code. 11 EU Member States (Austria, Belgium, Greece, Spain, Finland, France, Italy, Lithuania, the Netherlands, Portugal, United Kingdom) have a legislation for crowdfunding and/or peer-to-peer finance activities.

⁵⁴ A European Agenda for the collaborative economy. COM(2016) 356 final.

⁵⁵ European Commission (DG GROW) *Study to monitor the business and regulatory environment affecting the collaborative economy in the EU-28* (2018).

⁵⁶ Ibid.

Commission recommends that quantitative thresholds are established to increase clarity. Such thresholds can be the level of income retrieved from the activity, level of investment (e.g. in Austria, France, Germany, Greece, Malta, Portugal for crowdfunding), the type of asset rented out (e.g. in Flanders for short-term rentals).

In the Luxembourg transport sector, car sharing and ride sharing activities are allowed but not explicitly defined. The government has also publicly welcomed the platform Uber, if they follow the applicable legislation and do not create unfair competition for taxis and private hire vehicle companies. The taxi regulation was revised in 2016 and does not account for the provision of sharing economy services. However, there are projects to include the notion of “**taxi sharing**” in the revision of the law.⁵⁷ This system would allow to individuals to share taxi rides with each other, with the objective of increasing taxi capacity and decreasing traffic and the price of rides. In addition, the government promotes **car sharing and ride sharing**, which has some beneficial effects, and explains the good ranking of Luxembourg in the European Commission index (see figure above).

Luxembourg’s regulatory framework applying to **crowdfunding** has been found to be particularly un-adapted. Crowdfunding activities fall under the scope of the general financial regulations and the *Commission de Surveillance du Secteur Financier* (CSSF) has to assess each platform to determine which regulations should apply. Crowdfunding platforms are not exempt from any of the requirements applicable to other financial companies (e.g. investment firms or banks) for obtaining authorisations to operate, which can result in additional administrative and financial burden. According to the European Commission report, the lack of specific legislation is one obstacle to the development of the crowdfunding sector in the country, which could explain the low take up of crowdfunding presented in the previous Chapter.

Similarly, the trade of goods and services is also regulated by the legislation applicable to the conventional sector, i.e. rules of establishment and operations, as well as compliance with tax and VAT rules.

1. Focus on the accommodation sector

As in the other sectors assessed by this study, there is no specific legal framework for sharing economy platforms in the accommodation sector, and as a consequence sharing economy activities are regulated by the laws applying to short-term rentals and broader hospitality services. This feature is common among EU countries, with the exception of Greece, where a clear distinction is made between sharing economy and conventional activities.⁵⁸

This had led to a pronounced lack of legal certainty, as we explain further below. Indeed, there are no definitions of what constitutes a peer and a professional activity, which means that, in principle, private individuals renting a room on Airbnb must comply with the same regulations and abide by the same requirement as professional service providers (e.g. health and safety regulations). The absence of clear rules as well as clear distinctions between peer and professional providers is an obstacle, which could be overcome by using thresholds, such as:

- Type of asset (e.g. primary or secondary residence, like in France);
- Type of service provided (e.g. providing breakfast, like in Greece);
- Number of rooms or beds (e.g. in Flanders, Croatia);

⁵⁷ Interview with the Fédération des Artisans in Luxembourg, 09/10/2018.

⁵⁸ Law 4472/2017 defines a short-term rental as a “property lease which is concluded via digital platform for a lease term of less than a year” and sets a range of conditions to be met for peer providers to conduct their activities.

- Duration/frequency of the activity (e.g. in Madrid/Barcelona, the Netherlands);
- Level of income derived from the activity (e.g. in France).

The VVA study for DG GROW presents several examples from other EU Member States that can be taken as an inspiration for Luxembourg. For instance, in the Belgian region of Flanders⁵⁹ the threshold is set at two rooms or eight tourists, while in Croatia it is 10 rooms/20 beds.⁶⁰ In Italy⁶¹ or the Spanish city of Valencia⁶², the number of properties rented out is the threshold. In other Spanish cities, it is the duration of the rental (e.g. in Madrid⁶³) or a combination of duration of the rental and number of times within a year (e.g. in Barcelona).⁶⁴ In France, providers are considered as professionals if they receive more than a certain level of income from their activity⁶⁵ and authorisations and registration schemes only apply to peers renting out their secondary residences.⁶⁶ In Sweden⁶⁷ and in Greece⁶⁸, the law sets a series of thresholds including the type of asset, type of service provided, level of income received and/or duration of the rental.

B. At horizontal level

Some measures, whether they are aimed at fostering the sharing economy or at encouraging the broader start up ecosystem, affect all sharing economy sectors.

1. Public administration

The first feature relates to the capacity of the public administration to support the development of the sharing economy. It includes the simplification of procedures for platforms, enhanced dialogue with public authorities, the provision of information and guidance for sharing economy platforms, etc. The VVA study for DG GROW finds that Luxembourg could improve this aspect, as the country ranks 21 out of the 28 EU countries.

The novelty of sharing economy business models and the low level of adaptation of the current legislation have been identified by the European Commission as a source of uncertainty for sharing economy platforms and providers, and the DG GROW study finds that provision of appropriate guidance by public authorities is a very useful tool to mitigate

⁵⁹ Law 8/5/2014 on Touristic Lodging.

⁶⁰ Croatian Hospitality Activities Act.

⁶¹ Presidential Decree 131/1986 and Law 580/1993.

⁶² Decree 92/2009.

⁶³ Three months. Source: Regional Decree 79/2014.

⁶⁴ Two or more rental periods within the year (along with a threshold of 31 days per year). Source: Regional Decree 159/2012.

⁶⁵ The status of "professional furnished-renter" applies when a person is registered in the French Commercial Register as a "professional renter", and when the annual receipts for this activity exceed EUR 23,000, or the total amount of other income from the tax household. Note that France also uses another type of threshold linked to the type of accommodation provided - peer provider becomes a "hotel operator" if he offers more than five rooms, provide accommodation and serve breakfast to more than 15 people. See the French Tourism Code, art. D. 324-13.

⁶⁶ Loi n°2016-1321 du 7 octobre du pour une République numérique.

⁶⁷ In Sweden, providers of short-term rentals are considered as professionals if: a) they rent one or more furnished homes; b) their renting period is a maximum of four month for each tenant; c) they advertise for rental at a daily or weekly rate and services such as cleaning, change of bed linen etc.; d) the accommodation has been rented more than 16 weeks per year. Source: at: <https://www.skatteverket.se/privat/skatter/arbeteochinkomst/inkomster/delningsekonomi/hyrautstillgangarsom-bostadbatmedmera.4.24321e0c1165ddd612080002033.html#Olikauthyrningssituationer>

⁶⁸ In Greece, short-term rentals are allowed under the following conditions: a) property administrators (owners, lessors, sub-lessors or other administrators) cannot lease more than two properties; b) properties cannot be leased for more than 90 days (60 on islands of fewer than 10,000 inhabitants), unless the leaser's income from all properties leased is less than EUR 12,000 per year; c) Properties must be furnished and rented out without the provision of any service except for bed linen; d) the leasehold is exempt from VAT; e) Property administrators are taxed exactly as the owners who rent their houses to inhabitants by the month (i.e. 15% tax for property income up to EUR 12,000 a year, 35% tax for income more than EUR 12,001-35,000 a year and 45% for property income more than EUR 35,001 a year). Source: Law 4472/2017.

such uncertainty.⁶⁹ **Guidance for peer providers on taxation and national employment rules can support the development of the sharing economy.** The government of Luxembourg has issued little or no guidance on collaborative platforms, taxation rules, necessary licenses, insurance requirements and applicable legislation, which explains low scores in this indicator in the DG GROW study. One exception was a public document on the guichet.lu portal providing information to peer providers in the accommodation sector on the legislation relevant to them. The document also contained some tips to facilitate the use of online accommodation platforms, but is no longer available on the website.

The DG GROW study finds that the existence of a dedicated public body to regulate and oversee the sharing economy can help provide appropriate guidance. Indeed, such a body could contribute to centralising knowledge on the sharing economy in the country and improving the quality of the guidance provided. One EU Member State (Italy) has set up a specific regulatory body for the sharing economy.

Moreover, it is important that public authorities understand and measure the sharing economy and its business models. The Spanish National Commission for Markets and Competition (CNMC) for instance advises the incorporation of collaborative economy figures into official statistics. The United Kingdom's Office for National Statistics is currently working on sharing economy statistics and such a move is also under consideration at European level.

In Luxembourg there is no specific body dealing with the regulation of and the provision of information about the sharing economy. The Ministry of the Economy has initiated an examination of the development, impact and legal implications of the sharing economy in the country (cf. the present report), but quantitative impacts are yet to be measured in a targeted economic study. The Chamber of Commerce and Luxinnovation are also involved in the development of the sharing economy. Despite these initiatives, the sharing economy is currently not dealt with in a centralised manner. Luxinnovation could play a centralising role, or a dedicated department could be set up within the Chamber of Commerce.

2. Business support

Another feature identified as facilitating the sharing economy is the provision of services by public authorities to inform, support and train platforms and businesses willing to operate in the sector.

Luxembourg is doing fairly well when it comes to providing business support for sharing economy platforms, ranking 12 out of 28 in the DG GROW study for this indicator. The government does not provide any publicly funded grant schemes, etc., but it does offer advice and information to start ups, which also apply to sharing platforms. These services are provided by the Chamber of Commerce and the Ministry of the Economy via some specialised units, e.g. the House of Entrepreneurship⁷⁰ and the recently launched start-up incubator House of Start Ups⁷¹. For instance, the Chamber of Commerce occasionally organises information events around the sharing economy, e.g. in December 2017.⁷² The Ministry of the Economy and Chamber of Commerce design training programmes for entrepreneurs and platforms in the House of Entrepreneurship⁷³, a platform launched in 2016 to gather different actors from across the sharing economy ecosystem. The platform

⁶⁹ European Commission (DG GROW) *Study to monitor the business and regulatory environment affecting the collaborative economy in the EU-28* (2018).

⁷⁰ <http://www.houseofentrepreneurship.lu/fr/nos-missions/>

⁷¹ <https://www.host.lu/>

⁷² http://www.cc.lu/autres-services/manifestations/detail/?user_ccagenda_pi1%5BshowUid%5D=1112

⁷³ <http://www.houseofentrepreneurship.lu/fr/nos-missions/>

also provides support and advice to entrepreneurs. Support can cover elements which are common to the start-up ecosystem, i.e. how to settle and develop a business, how to make better use of digital tools, how to access to financial support,⁷⁴ but is sometimes specific to the sharing economy. A recent example is the workshop run by the Fondation IDEA on the sharing economy during the Entrepreneur Days.⁷⁵

The presence of specific support services for the sharing economy has been acknowledged as one of the main drivers of the sharing economy, according to the DG GROW study. However the same source warns against the fact that, in most countries, including in Luxembourg, such services are not specifically targeted to the special needs of the sharing economy. Notably, the non-profit nature of some sharing economy activities may entail difficulties for platforms to access finance, even from publicly-funded schemes. For this reason, countries such as the United Kingdom (through its innovation agency Innovate UK) have offered grant schemes where only sharing economy platforms can apply.⁷⁶

Moreover, the regulatory uncertainty around collaborative economy business models, which has already been mentioned above, may require specific knowledge of sharing economy services from public authorities to provide useful support. Training activities and support services more broadly designed for start-ups and innovative businesses may therefore not be enough. This is why Luxembourg is strongly encouraged to continue its efforts to provide tailored support and guidance to sharing economy platforms and providers.

The creation of incentives, whether financial or non-financial is also very important to facilitate the adoption of the sharing economy, especially by consumers. According to the Fondation IDEA, one of the main obstacles to the development of the sharing economy in the country is convenience, as well as the following of old habits (such as for instance using its own car instead of carpooling to work) and a strong signal from public authorities is sometimes essential to trigger such changes.⁷⁷ According to the DG GROW study, public authorities have a key role to play in providing with sufficient incentives, which is already the case but could be further developed by Luxembourg.

In the transport sector, the DG GROW study praises the involvement of the Luxembourg government in encouraging sharing economy initiatives, including the setting up of its own platform.⁷⁸ Furthermore, there are examples of countries, including outside the EU (United States, Canada) where **some lanes are kept on the roads for cars with more than a certain number of passengers to encourage car sharing**, for instance. Luxembourg is currently embracing the idea with political parties such as Déi Lénk, the DP, the CSV, the LSAP and Déi Gréng proposing this solution in their programmes for the October 2018 elections. However, according to the Fondation IDEA, these proposals could have gone further, for instance by also proposing financial incentives with regard to taxation. Sarah Mellouet from the Fondation IDEA advocates for instance for:

- The revision of the reimbursement of travel expenses. Currently Luxembourg workers can deduce their travel expenses from their taxation income, an amount which increases with the distance between their residence and workplace. This has the indirect effect of "rewarding" those living far from their workplace when they use cars for commuting to work. Fondation IDEA advocates to follow the example

⁷⁴ <http://www.houseofentrepreneurship.lu/nos-services/>

⁷⁵ http://www.houseofentrepreneurship.lu/agenda/detail/?user_ccagenda_pi1%5BshowUid%5D=1385

⁷⁶ <https://www.gov.uk/government/publications/funding-competition-digital-innovation-in-the-sharing-economy/funding-competition-digital-innovation-in-the-sharing-economy>

⁷⁷ Interview with the Fondation IDEA, 20/09/2018.

⁷⁸ European Commission (DG GROW) Study to monitor the business and regulatory environment affecting the collaborative economy in the EU-28 (2018).

of the Belgian government in this regard, which, contrary to Luxembourg, has put in place fiscal advantages to encourage ride sharing, especially from home to work.⁷⁹

- The suppression of benefits in kind ("avantages en nature"), such as company cars, which currently represent 10% of the Luxembourg car fleet⁸⁰ and contribute to maintaining habits of commuting to work via this mean.

Taxation incentives have been found by the European Commission study as very efficient for facilitating sustainable sharing economy activities, but are not commonly found among the EU Member States (one exception is the United Kingdom with the rent a room scheme, as discussed in the previous Chapter).

Another way to encourage sharing economy services is to incentivise its use among public authorities. In the Netherlands for instance, the government reimburses civil servants when they use BlaBlaCar as part of their work.⁸¹ In Spain, France and the United Kingdom, public sector institutions can use crowdfunding platforms.⁸²

Setting up accreditation schemes for collaborative economy activities can help build trust in those services. A good example in this regard is the car sharing label introduced by the French government which allows vehicles to benefit from reserved parking spots and preferential tariffs for parking.⁸³

As regards unification of the applicable legislation, which is the last feature assessed by the DG GROW study, the country has a good score as since the same rules apply everywhere in the country with the exception of a specific accommodation tax that is collected only in some municipalities.⁸⁴

POLICY RECOMMENDATION 1: Providing a clear legal framework for sharing economy activities.

It is recommended that Luxembourg provides a clear framework for sharing economy activities, for instance in including the sharing economy in Luxembourg Law (see the examples of Denmark, Estonia, France, Lithuania, or Greece). It is also recommended that Luxembourg sets clear (quantitative) thresholds to distinguish between peers and professionals.

Public authorities should provide targeted guidance, especially on taxation and national employment rules, to sharing economy platforms and providers. A dedicated public body to oversee the sharing economy (within an existing innovation institution, Chamber of Commerce, or other appropriate organisation for instance) could help

⁷⁹ If the ride sharing scheme is organised by the company, workers can exonerate up to the totality of its travel expense its residence to work, deduction of 75% of the fees imputable to the detours made to pick up and drop off other passengers, and in some cases, partial exoneration of taxes on company cars. Source: https://finances.belgium.be/fr/particuliers/transport/deduction_frais_de_transport/trajet_domicile_travail/covoiturage#q2

⁸⁰ <https://home.kpmg.com/content/dam/kpmg/lu/pdf/kpmg-luxembourg-automotive-survey-2017.pdf>

⁸¹ <https://www.rijksoverheid.nl/onderwerpen/inkomstenbelasting/vraag-en-antwoord/wat-is-de-maximale-kilometervergoeding-die-ik-van-mijn-werkgever-kan-ontvangen>

⁸² European Commission (DG GROW) Study to monitor the business and regulatory environment affecting the collaborative economy in the EU-28 (2018).

⁸³ Ministère de la Transition écologique et solidaire, Autopartage en France. Available at: <https://www.ecologique-solidaire.gouv.fr/autopartage-en-france#e4>

⁸⁴ <https://guichet.public.lu/fr/citoyens/impots-taxes/bien-immobilier/terrain-bien-immobilier/payer-taxes-communales.html>

centralise the provision of information and guidance, including the creation of a one-stop shop.

In addition, business support services should be targeted to the needs of sharing economy businesses. Support can be non-financial, e.g. the provision of information and guidance, but also financial, for instance specific grant schemes for sharing economy platforms as in the United Kingdom. This includes the provision of financial incentives for the adoption of sharing economy practices that are strong enough to trigger a change in individual behaviour. In Luxembourg, one possibility could be to revise the tax scheme for investment in risk capital to redirect individuals' savings towards crowdfunding. Another tax incentive to foster the adoption of ride sharing for daily commuting would be to integrate a reward for ride sharing, following the Belgian example.

II. Creating sustainable sharing solutions through regulatory and non-regulatory measures

For public authorities to successfully approach digital transformation, a key driver of the sharing economy, a dual approach is needed. First, **digital innovation ought to be actively embraced**. As history has shown time and time again, innovation cannot be reversed. This also seems imperative from an economic perspective, as research has underlined that the costs of not embracing sharing practices might be significant.⁸⁵ Second, this does not, however, equal a passive embracing of industry-driven developments. Rather, **public authorities must actively steer innovation to align it with recognised public policy objectives**.

The reconciliation of technological and business model innovation and public policy is not always straightforward. Mutual adjustment between these innovations and the existing regulatory framework is rather needed. While **the State must ensure that the data-driven economy develops in line with recognised policy goals, the means and actors of regulation are also impacted and transformed by digital innovation**.

Digital platforms have generated '**platform power**', a concept that underlines not just their economic force but also their function as a regulator in respect of the transactions and interactions mediated by them.⁸⁶ In this setting the **pivotal role of the State** should not, however, be neglected. Public authorities retain significant potential to influence how the sharing economy develops, whether through **regulation or alternative incentivising mechanisms**.

A. Public authorities as market shapers

Over the past years, public authorities in the EU and beyond have adopted variegated approaches in relation to the sharing economy. These initiatives underline the State's potential to **shape expressions of the sharing economy and align them with public policy objectives**. To devise such strategies different factors ought to be taken into account.

⁸⁵ European Parliamentary Research Service, The Cost of Non-Europe in the Sharing Economy. Economic, Social and Legal Challenges and Opportunities (2016) (discussing the cost for EU Member States of restricting sharing economy practices).

⁸⁶ Orla Lynskey, Regulating Platform Power (2017) LSE Legal Studies Working Paper No 1/2017, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2921021.

1. The appropriate scale of regulation

The sharing economy is both a global and a local phenomenon. Its global dimension is hard to deny. Some platforms operate across the planet and business models often take inspiration from similar ventures in other jurisdictions. At the same time the sharing economy also has an inherently local dimension. In many ways it is an **urban phenomenon** as the matching of supply and demand is favoured by demographic density.⁸⁷ It 'is grounded – situated in place – ways that many other recent technological transformations have not been'.⁸⁸ This is so because it leverages specific local characteristics and addresses a market that – by and large – is of a local nature. As a consequence, there are no universal regulatory solutions. Rather, **the specific local characteristics and policy-objectives ought to be accounted for when determining the appropriate regulatory response.** Considering that the same sharing economy business model can have different effects depending on local particularities, Member States have often led their subnational authorities take the lead.⁸⁹ Spain for instance adopted legislation that enables its autonomous communities to regulate ride-hailing platforms as they see fit.⁹⁰ Below, we account for these considerations of scale when devising specific policy recommendations.

2. Public authorities as market shapers

After an initial period of wait-and-see, public authorities across Europe increasingly mandate that sharing economy providers abide with established policy objectives. To illustrate, Transport for London, the transportation regulator for London, decided to not renew Uber's license in September 2017 after observing a 'lack of corporate responsibility' regarding public safety and security concerns, such as its omission to report serious criminal offences, its approach to obtaining official records, and the use of Greyball, a software used to block regulator from gaining full access to the app.⁹¹

There appears to be some evidence that such actions not only have the effect of **ensuring compliance** but that they can also **facilitate market-entry of compliant providers.** In 2016, Uber and Lyft ceased their operations in Austin, Texas after the local government required fingerprint-based background checks for their drivers.⁹² After these companies left, new ride sharing apps willing to abide by these requirements emerged, such as Ride Austin, a non-profit provider that allowed drivers to take home a greater share of the profits and Fasten, which only takes \$1 off the fee (for platform maintenance) as opposed to the percentage model that Uber for instance operates.⁹³ While these apps may have appeared quickly and organically due to Austin's thriving technology sector, the episode highlights that **public authorities can nudge the development of sharing business models.**

⁸⁷ Michèle Finck and Sofia Ranchordás, 'Sharing and the City' (2016) 49 Vanderbilt Journal of Transnational Law 1299.

⁸⁸ Nestor Davidson and John Infranca, 'The Place of the Sharing Economy' in Nestor Davidson et al. (eds), *Cambridge Handbook on the Law and Regulation of the Sharing Economy* (Cambridge University Press 2018) 205, 205.

⁸⁹ This, of course, also depends on domestic institutional arrangements and power structures.

⁹⁰ Natasha Lomas, 'Spanish 'anti-Uber' taxi strike ends after government agrees new regulation' (*TechCrunch*, 2 August 2018) <<https://techcrunch.com/2018/08/02/spanish-anti-uber-taxi-strike-ends-after-government-agrees-new-regulation/>> accessed 06 August 2018.

⁹¹ Transport for London, 'Licensing decision on Uber London Limited' (22 September 2017) <<https://tfl.gov.uk/info-for/media/press-releases/2017/september/licensing-decision-on-uber-london-limited>> accessed 06 August 2018. It is worth noting that Uber won an appeal against this decision, but the judge only granted a provisional 15 month license putting the ball back in the regulator's court.

⁹² Nestor Davidson and John Infranca, 'The Place of the Sharing Economy' in Nestor Davidson et al. (eds), *Cambridge Handbook on the Law and Regulation of the Sharing Economy* (Cambridge University Press 2018) 205, 212.

⁹³ Ibid.

At the same time, digitalisation has also served as an impetus to **modernise existing legal frameworks** in some jurisdictions. As a reaction to the digital disruption of its ride-hailing market, the Finnish government **deregulated the taxi sector** to 'create preconditions for digitalisation and new business models in transport'.⁹⁴ New legislation governs the interoperability of data and information systems and seeks to improve the efficiency of transport services helping to achieve environmental and climate goals.⁹⁵

B. Non-regulatory and regulatory methods of promoting sharing

Public authorities can harness the benefits of sharing. To illustrate, creating a more adequate legal framework for **flat shares and home shares** (a policy recommendation we outline below) would enable a more efficient and sustainable use of housing space in the Grand Duchy. Similarly, providing clarity regarding **temporal home sharing** through platforms such as Airbnb or Aritel (another recommendation we outline below) would also present benefits.⁹⁶ Where such policies are adopted, the sharing economy is shaped by the regulatory direction provided by the State. There are however also other options that allow the public authorities to promote the sharing economy.

1. Promoting sharing through offer

Public authorities can **directly provide sharing economy services**, or public-private collaborations that strive to achieve this objective. The mobility sector could be an interesting testing ground for such a project. Luxembourg has already laudably embraced an ambitious plan towards a more sustainable mobility concept; of which **shared mobility** is a central aspect. This is for instance illustrated through reflexions whether motorway lanes should be reserved for carpooling and public transport during rush hour traffic.⁹⁷ Such moves could contribute to unclogging the Grand Duchy's streets and help achieve commitments towards emission reductions.⁹⁸

Over the past years private offer has emerged offering such services. It is, however, worth reflecting on whether this offer would be usefully complemented by a digital shared mobility platform that is targeted specifically to the Luxembourg market. **CoPilote**, an intermediary platform for ride sharing supported by the Luxembourg government is an important step in that direction. It connects parties interested in carpooling with the same journey and supports this financially in the first phase of the project.⁹⁹ **Building on this project could be a valuable step to further promote the sharing economy in Luxembourg.**

Similar initiatives could be adopted in **other sectors**. Companies that have **vacant office space** can sublet their office to others, particularly attractive as Luxembourg seeks to promote start-ups and entrepreneurship. Such solutions allow companies to sublet office space that is free temporarily (either due to excess space or simply because some employees work part-time or benefit from remote work arrangements). Second, there is still ample room to **further promote shared mobility**. CoPilote is likely to be used at broader scale if incorporated with the existing mobility offer in Luxembourg, such as through the creation of an interface that allows users to compare available offer by bus,

⁹⁴ Ministry of Transport and Communications, 'Good and flexible transport services through a new act' (24 May 2017) <<https://www.lvm.fi/en/-/good-and-flexible-transport-services-through-a-new-act-933155>> accessed 06 August 2018.

⁹⁵ Ibid.

⁹⁶ <https://www.abritel.fr/>

⁹⁷ https://gouvernement.lu/en/gouvernement/francois-bausch/actualites.gouvernement%2Bfr%2Bactualites%2Btoutes_actualites%2Barticles%2B2017%2B04-avril%2B07-bausch-autoroute.html

⁹⁸ MIT "Real-Time" Rideshare Research, *Ride-Share History and Statistics*, MIT, <http://ridesharechoices.scripts.mit.edu/home/histstats/> (accessed 3 September 2018).

⁹⁹ <https://www.copilote.lu/>

train, bicycle or car when travelling. Further, Luxembourg could consider making available **free parking spaces for those that carpool**, a solution that has already been embraced in other locations such as Amsterdam.

Indeed, public authorities in other jurisdictions have started taking matters in their own hands when it comes to organising sustainable sharing in the mobility sector. In the United States, Aspen, Colorado created the first municipal car sharing program with an entirely hybrid fleet in the US.¹⁰⁰ In 2011, the city of Portland promoted peer-to-peer car sharing by partnering up with the start-up Getaround, the Federal Highway Administration and the State administration.¹⁰¹ Luxembourg has embraced bike sharing early on, with Esch-sur-Alzette offering such a service about fifteen years ago already. Further building on such efforts could cement its leadership role in this domain.

Such projects are more likely to be successful if they are targeted at local consumers. Tourists or new residents from abroad are more likely to rely on names they know, such as when searching for temporary accommodation. This makes the case that when it comes to these business models, public authorities should seek to regulate existing offer, such as through the means enunciated above. Yet, in sectors such as transportation where the main users are residents, the provision of an alternative through public-private cooperation is a valuable alternative.

Where the State initiates such projects, it needs to take into account rules on State aid and the rules applicable to public undertakings under Article 106 TFEU. **Article 106 TFEU** governs public undertakings as well as undertakings that have been provided with special or exclusive rights by the State. In such instances, Member States are still compelled to comply with EU law in order to deprive these rules of their effectiveness.¹⁰² Of course, each case would need a specific case-by-case analysis taking into account the specific circumstances of each project. Below, we share a general overview of this area of the law and its application to the involvement of the State in sharing economy platforms.

Under, Article 106(2), undertakings that are 'entrusted with the operation of services of general economic interest' must not, however, comply with competition rules, where doing so would 'obstruct the performance, in law or in fact, of the particular tasks assigned to them'.¹⁰³ The suggested solution would, most likely, require the Luxembourg government to create a 'public undertaking' or grant special or exclusive rights to an existing undertaking. However, there is reason to believe that the proposed initiatives would nonetheless be compliant with EU law. First, it is not clear that the granting of such rights would actually lead to an infringement of Treaty provisions such as Article 102 TFEU (abuse of a dominant position). It cannot be predicted whether the given platform would assume a position of dominance in the market, nor whether it would commit abuse of that position.¹⁰⁴ To this end, the platform would need to be **open access**. Indeed, if there is **no legal monopoly in the provision of services and the goal of the platform is simply to match offer and demand this is unlikely to be problematic from the perspective of EU law**. Even where such activity would be caught by Article 106(1) TFEU, it could likely be justified under Article 106(2) TFEU, which provides a limited derogation from competition rules to undertakings entrusted with services of general economic

¹⁰⁰ The City of Aspen, Colorado, *Press Release*, <http://www.aspenpitkin.com/Whats-New-/Press-Releases/newsid378/371/> (accessed February 27, 2016).

¹⁰¹ Portland Bureau of Transportation, *Peer to Peer Car Sharing Coming to Portland*, December 14, 2011, <https://www.portlandoregon.gov/transportation/45195?a=378214>

¹⁰² Article 106 (1) TFEU. See further Case C-533/12 *DEI* EU :C :2014 :2083.

¹⁰³ Article 106(2) TFEU.

¹⁰⁴ Indeed, the provision only applies where 'a measure imputable to a Member State gives rise to a risk of an abuse of a dominant position'. Case C-533/12 *DEI* EU :C :2014 :2083, para. 42.

interest ('SGEI').¹⁰⁵ Undertakings are considered to have been entrusted with a SGEI where the State has assigned it certain tasks that confer on it certain functions or grant it a concession.

It however also needs to be assessed whether the financing of a SGEI could be considered to amount to **State aid** under Article 107 TFEU. In this respect, the European Court of Justice has clarified in the seminal *Altmark* case that compensation that does not exceed the minimum possible costs incurred in the discharge of the public service obligation does not qualify as State aid.¹⁰⁶ In such instances, the public service obligations to discharge must also be clearly defined, parameters on the basis of which compensation is calculated must be established in advance in an objective and transparent manner and where the undertaking that discharges the public service obligation is not chosen pursuant to a public procurement procedure, the analysis of the cost must be determined on the basis of a typical undertaking.¹⁰⁷ The European Commission has provided guidance on these various criteria.¹⁰⁸ Further, Commission decision 2012/21 elaborates that certain types of compensation provided by Member States to undertakings that provide SGEI are compatible with Article 106(2) TFEU and exempt from the State aid notification duty in Article 108 TFEU.¹⁰⁹ It should also be noted that there is a *de minimis* threshold of up to EUR 500,000 per company over a three-year period as compensation for the provision of a SGEI.¹¹⁰ Providing that a case-by-case analysis confirms that these criteria can be applied, the proposed solution can thus be assumed to be compliant with EU law.

2. Promoting sharing by example

Public authorities furthermore have the ability to promote the sharing economy by **setting an example through their own adoption of a sharing culture**. Many actors have embraced this idea. The London borough of Croydon replaced its fleet cars with a Zipcar partnership and cut staff car travel costs by 40%.¹¹¹ Other initiatives seek to incentivise public authorities to share heavy equipment to reduce overall expenditures.¹¹² Munirent is a platform that allows municipalities to lend equipment (for example, trucks) from each other, is currently being used by multiple local governments in Michigan and Oregon.¹¹³ While this is not feasible in relation to equipment that public authorities are likely to need at the exact same time (such as snow removal trucks) it could be a valuable solution in other respects.

A number of '**sharing cities**' have moreover emerged, whereby cities commit to actively promote sharing, also through their own actions such as making available parts of government buildings after hours so that associations and private individuals can use them (for meetings, etc.). Given Luxembourg's modest size this is something that could also be adopted at national level.¹¹⁴

¹⁰⁵ See further Article 14 TFEU, Protocol No 26 on Services of General Interest and Article 36 of the EU Charter of Fundamental Rights.

¹⁰⁶ See further Case C-280/00 *Altmark* (2003) EU:C:2003:415.

¹⁰⁷ *Ibid.*

¹⁰⁸ Communication from the Commission on the application of the European Union State aid rules to compensation granted for the provision of services of general economic interest (OJ 2012 C8, 11.01.2012).

¹⁰⁹ (2012) OJ L7/3.

¹¹⁰ Commission Reg. (EU) 360/2012 (OJ 2012 L/114, 26.4.2012).

¹¹¹ McLaren & Agymean *supra* note 72 at 51.

¹¹² National League of Cities, Cities, *supra* note 170 at 1.

¹¹³ Colin Wood, *Munirent Brings the Sharing Economy to the Government*, GOVTECH, August 21, 2014, <http://www.govtech.com/internet/Munirent-Brings-Sharing-Economy-to-Government.html> (accessed February 27, 2016).

¹¹⁴ <https://www.sharingcities.net/>

In addition to such non-regulatory initiatives, public authorities can further shape the sharing economy through the adoption of regulation. Here, different strategies are available that must be carefully pondered.

3. *The right form of regulation*

The European Commission has suggested that when regulating online platforms 'principles-based self-regulatory/co-regulatory measures, including industry tools for ensuring application of legal requirements and appropriate monitoring mechanisms, can play a role'.¹¹⁵ Governments pondering how to best approach the sharing economy are as a consequence prompted to evaluate the comparative efficiency of these different models. We contrast command-and-control regulation with self-regulation and co-regulation to provide some guidance.

Command-and-control regulation, also referred to as 'top-down' regulation, refers to the most well-known regulatory instrument: **legislation**. Law is indeed traditionally State- or EU-centred, unified, hierarchical and unpinned by the rule of law.¹¹⁶ As the default option, legislation presents a number of benefits such as certainty. Where secondary legislation is issued at EU level, particularly in the form of a regulation, it creates **uniformity that is beneficial from an internal market perspective** as '[r]egulatory uncertainty and fragmentation across and within Member States complicates (or even impedes) market access and limits investment opportunities for platforms'.¹¹⁷

Nonetheless, **there has in recent times been doubt whether legislation is always the best choice in the context of digital innovation**. Platforms themselves often have the data on the effects of their respective business model, more than the legislator itself. As a consequence, there is an **information asymmetry between the regulator and the regulated**. This risks resulting in the adoption of ill-suited principles may firstly stifle innovation. Further, the **enforcement** of legislative obligations has proven particularly burdensome in relation to digital business models.

Self-Regulation has accordingly been presented as an alternative. **Sharing economy platforms de facto self-regulate through computer code** that expresses the terms and conditions of their intermediary function and in doing so define online and offline standards of behaviour. Due to the efficiency of regulation through code some have argued that platforms should be left to self-regulate free from outside interference as they have more knowledge and better enforcement mechanisms than public authorities.¹¹⁸

In the EU context, self-regulation is defined as 'the possibility for economic operators, the social partners, non-governmental organisations or associations to adopt amongst themselves and for themselves common guidelines at European level (particularly codes of practice or sectoral agreements)'.¹¹⁹ Self-regulation has long been relied on in complex sectors such as nuclear energy or finance.¹²⁰ Sharing economy platforms already

¹¹⁵ European Commission, 'Communication on Online Platforms and the Digital Single Market. Opportunities and Challenges for Europe' COM (2016) 288 final, 5 (hereafter European Commission, 'Communication on Online Platforms and the Digital Single Market').

¹¹⁶ Michael Wilkinson, 'Three Conceptions of Law: Towards A Jurisprudence of Democratic Experimentalism' (2010) Wisconsin Law Review 673, 673-4.

¹¹⁷ Commission Staff Working Document, 'A Single Market Strategy for Europe: Analysis and Evidence', SWD (2015) 202 final, 6.

¹¹⁸ Christopher Koopman et al. 'The Sharing Economy and Consumer Protection Regulation: The Case for Policy Change' (2014) Mercatus Working Paper, 1 <https://www.mercatus.org/publication/sharing-economy-and-consumer-protection-regulation-case-policy-change>.

¹¹⁹ Interinstitutional Agreement on Better Law-Making (2003) OJ C 321, para 22.

¹²⁰ Neil Gunningham and Joseph Rees, 'Industry Self-Regulation: an Institutional Perspective' (1997) 19 Law & Policy 363. Elizabeth Howlett et al., 'The Role of Self-Regulation, Future Orientation and Financial Knowledge in Long-Term Financial Decisions' (2008) 42 Journal of Consumer Affairs 223.

cooperate to discuss issues of trust, safety and security.¹²¹ **Many platforms have adopted internal standards that echo their self-regulating tendency.** Uber adopted 'Community Guidelines' that regulate the respective behaviour of riders and drivers.¹²² Non-respect of these principles is sanctioned by delisting the driver or rider.¹²³ The global free-lancing platform Upwork on the other hand has imposed a 'minimum rate' for all work contracted via the platform.¹²⁴

Yet, simply **encouraging self-regulation risks encouraging platforms' transformation into purely self-regulating entities that act outside of public oversight mechanisms.**¹²⁵ Platforms indeed have little incentives to enforce principles and norms that hinder work to their detriment even where they promote the public good. This, however, is precisely the role public regulation has to fulfil in some regards. As such a co-regulatory approach appears more promising.

Co-regulation refers to the process whereby a legislative act entrusts the attainment of objectives (defined in law) to other parties, which can include economic operators, social partners, non-governmental organisations, or associations.¹²⁶ Legislation – initiated at EU or national level – determines objectives to be attained but their achievement is entrusted to private actors.¹²⁷ It encourages collaboration between public authorities and private bodies to regulate private activity while accounting for its particularities and safeguarding public policy objectives. As such, it recognises the benefits of including a broader pool of stakeholders and decision-makers in policy-making and enforcement.¹²⁸ Nonetheless, **co-regulation does not amount to deregulation.** Rather, public authorities are involved at all stages of the process from the definition of the legislative framework to the complex review mechanisms. Where the process fails, public authorities further always keep the option of reverting to traditional command-and-control legislation.

Many examples of co-regulatory practices in relation to the sharing economy have emerged over time. For example, Airbnb and Amsterdam have signed a memorandum of understanding that introduces **automated time limits for home sharing** to ensure that entire-home listings are not made available for more than sixty days per year.¹²⁹ Similar models have been adopted in other European cities such as London where this agreement encompasses a 90-day period.¹³⁰ In addition to time limits **similar arrangements have been made whereby platforms as tasked with enforcing tax law.** In Lisbon Airbnb collects tourist tax on behalf of hosts.¹³¹ In France,

¹²¹ Nick Gossman, White Paper: Regulation, the Internet Way. A Data-First Model for Establishing Trust, Safety, and Security (2015) <http://datasmart.ash.harvard.edu/news/article/white-paper-regulation-the-internet-way-660>. (hereafter 'Gossman, *Regulation the Internet Way*').

¹²² <https://www.uber.com/de/legal/community-guidelines/us-en/>.

¹²³ <https://www.uber.com/de/legal/community-guidelines/us-en/>.

¹²⁴ <https://support.upwork.com/hc/en-us/articles/211062988-Minimum-Hourly-Rates>.

¹²⁵ On Uber's failure to comply with its own code of conduct, see See Press Association, 'Uber failing to report Sex Attacks by Drivers, Says Met Police' The Guardian (13 August 2017) <https://www.theguardian.com/technology/2017/aug/13/uber-failing-to-report-sex-attacks-by-drivers-says-met-police>; Mike Isaac, 'Uber is sued by Woman who was raped by one of its Drivers in India'. New York Times (15 June 2017) <https://www.nytimes.com/2017/06/15/technology/uber-india-rape-lawsuit.html?mcubz=1> (accessed 3 September 2018).

¹²⁶ 2003 Interinstitutional Agreement on Better Law-Making, (n 43) para 18.

¹²⁷ Christopher Marsden, *Internet Co-Regulation* (Cambridge University Press 2011) 46.

¹²⁸ Raymond Brescia, 'Regulating the Sharing Economy: New and Old Insights into an Oversight Regime for the Peer-to-Peer Economy' (2016) 95 Nebraska Law Review 87, 134.

¹²⁹ <http://www.dutchdailynews.com/amsterdam-airbnb-announce-new-unique-agreement/>.

¹³⁰ Ibid.

¹³¹ Ibid.

Airbnb has concluded agreements with nineteen cities pursuant to which it collects tourist taxes on behalf of them.¹³²

A key argument in favour of involving sharing economy platforms in regulatory enforcement is that **such regulations can be enforced much more efficiently through the help of technology** – an argument we return to below. Sharing economy platforms can simply program their algorithm to collect taxes or enforce time limits whereas there is ample evidence that this is hard for public authorities.¹³³

Co-regulation is not a one-point intervention but rather an on-going process, making it an **experimental learning process that embraces uncertainty and is designed to adapt over time.** Tools can be quickly adjusted to new situations, information is constantly gathered and divergent interests are reconciled. One of co-regulation's essential features is that the standards that are defined are constantly evaluated and reviewed.¹³⁴ It is as such particularly well suited to a novel and paradigm-changing phenomenon such as the sharing economy, particularly where assessment is facilitated by the real-time evaluation of data. Indeed, some have suggested that platforms should make available some of their anonymised data to regulators for those to verify whether platforms indeed enforce the norms they have been tasked to enforce. There is precedent of Airbnb sharing some data with a number of cities such as Milan¹³⁵ or New Orleans.¹³⁶ Whereas such data-sharing must of course occur in respect with the General Data Protection Regulation, it can constitute a helpful component of co-regulatory solutions. In such settings, multi-stakeholder consultations assume an important role. Co-regulatory solutions are likely to be particularly adequate where they are the result of multi-stakeholder consultations.

4. Multi-stakeholder consultations

The Third Industrial Revolution Strategy Study for Luxembourg recommended multi-stakeholder consultations and collaboration as a means of tackling the difficult questions of our time. It has long been known that **polycentric decision-making allows for the concentration of knowledge, which is naturally dispersed across society.**¹³⁷ Indeed, while it is often assumed that industry has all the knowledge and public authorities have none, oftentimes 'no single actor has all the knowledge required to solve complex, diverse, and dynamic problems, and no single actor has the overview necessary to employ all the instruments needed to make regulation effective'.¹³⁸ It is thus also promoted by the EU's 2015 Better Regulation Agenda that promotes evidence-based regulation, including broader consultations and civic engagement.¹³⁹ Such consultations could involve representatives from different corners of industry but also representatives from local government, which are faced with the immediate consequences of those sharing economy applications with a distinctly local character.

These so-called new governance approaches foresee that law and policy be determined by a broad pool of stakeholders and decision-makers to reflect 'participatory and

¹³² <https://paris.airbnbcitizen.com/fr/airbnb-simplifie-la-collecte-de-la-taxe-de-sejour-dans-19-villes-en-france/>

¹³³ Zweckentfremdungsverbot.

¹³⁴ Wolfgang Schulz and Thorsten Held (n 36).

¹³⁵ <https://www.airbnbcitizen.com/moving-forwards-in-milan/>.

¹³⁶ <https://skift.com/2016/12/08/airbnbs-new-policies-for-working-with-cities-continue-to-evolve/>

¹³⁷ Cass Sunstein, *Infotopia: How Many Minds Produce Knowledge* (Oxford University Press 2006); Henrik Serup Christensen et al, 'Does Crowdsourcing Legislation Increase Political Legitimacy? The Case of Avoin Ministeriö in Finland' (2015) 7 Policy and Internet 25.

¹³⁸ Julia Black, 'Decentering Regulation: Understanding the Role of Regulation and Self-Regulation in a "Post-Regulatory" World' (n 28) 107.

¹³⁹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 'Better Regulation for Better Results - An EU Agenda', COM(2015) 215.

representative ideas, and benefits from the insights of practitioners, consumers and regulators who may possess insights, not typically incorporated into oversight, that can help to balance the need for regulation against the benefits to be gained from innovation'.¹⁴⁰ We recommend that the Luxembourg government adopts such approaches when devising its sharing economy strategy.

5. *The role of technology*

Before venturing on to the examination of self-regulating platforms, we should stress that as a general matter technology is a de facto self-regulating force, best exemplified by the maxim of '**code is law**' that reflects that in addition to other factors code influences behaviour.¹⁴¹ This has been confirmed in many respects, including data protection law and underscores the centrality of algorithms as governance mechanisms. It can indeed not be denied that platforms have become the relevant 'rule-makers'.¹⁴² The emergence of **RegTech** solutions further cements this trend that we recommend that the Luxembourg government observes with respect to the sharing economy and beyond. This could for instance be implemented in relation to time limits and fiscal compliance in relation to sharing economy solutions in the accommodation sector. Platforms could automatically enforce time limits and levy taxes, which in turn could be monitored by public authorities through technological means.

POLICY RECOMMENDATION 2: Choosing the right form of regulation.

We encourage the Luxembourg government to consider what the right scale of regulation is whenever adopting a specific policy and we incorporate related considerations in our recommendations below. Where regulation is adopted, the **right form of regulation** must be carefully chosen. This includes a consideration for co-regulatory solutions that embrace the multi-stakeholder consultations recommended by the Third Industrial Revolution Study and the role of technology as a regulatory tool, an area that we recommend that the Luxembourg government observes more generally.

Beyond this, we also recommend that the Luxembourg Ministry of the Economy encourage sustainable sharing practices in adopting measures designed further the **offer** of such solutions. Sustainable sharing can also be furthered where the Luxembourg government **leads by example** in relying on sharing solutions whenever possible.

¹⁴⁰ Raymond Brescia, 'Finding the Right 'Fit': Matching Regulations to the Shape of the Sharing Economy' in Nestor Davidson et al. (eds), *Cambridge Handbook on the Law and Regulation of the Sharing Economy* (Cambridge University Press 2018) 156, 157.

¹⁴¹ Lawrence Lessig, *Code and Other Laws of Cyberspace* (Basic Books 1999) (hereafter 'Lessig, *Code and other Laws of Cyberspace*').

¹⁴² Marta Cantero Gomito, 'Regulation.com. Self-Regulation and Contract Governance in the Platform Economy: A Research Agenda' (2017) 9 *European Journal of Legal Studies* 53 (hereafter 'Cantero, Regulation.com').

CHAPTER 3: The Benefits and Opportunities of the Sharing Economy

Sharing economy business models are perceived to offer a range of benefits and opportunities for providers, consumers and society, including greater variety and availability of resources, lower costs, and more efficient use of resources compared to the alternatives offered by traditional industry. The Eurobarometer survey on the use of collaborative platforms finds that Luxembourg citizens particularly value the cheap price or gratuity of sharing economy items (67%), the wider choice compared to the traditional economy (61%), the convenient access to services (63%) compared with the traditional economy and the availability of reviews (50%).¹⁴³ In comparison, the ability to exchange products or services instead of paying for them and the possibility to interact with interesting people were less valued (at 39% each).

While some of these benefits are common to the platform ecosystem, others are specific to sharing economy business models (i.e. characterised by the trading of underutilised assets). Within the sharing economy, the type of transaction that is facilitated and the monetisation model used can also have different implications and generate different types and size of benefits.

The analysis in this chapter outlines six different opportunities created by the sharing economy in Luxembourg. The first four opportunities relate to the economic implications of the sharing economy, i.e. economic growth through the better matching of resources, and opportunities for employment, innovation, and the conventional sector. The last two opportunities deal with societal aspects, i.e. the development of local communities and potential benefits on the environment.

I. A more efficient allocation of resources

As mentioned above, digital platforms allow a **more efficient matching of supply and demand through the reduction of transaction and coordination costs**, which can bring significant cost savings for both consumers and providers. Jeremy Rifkin emphasises resource efficiency as the main argument for promoting the sharing economy, both from an economic perspective (marginal costs are close to zero, productivity is higher as higher value is extracted from fewer resources) and an environmental perspective (resource sharing allows to diminish the environmental footprint, as developed in the next section).¹⁴⁴ A European Commission study on the socio-economic and environmental impacts of the sharing economy¹⁴⁵ has outlined the following economic benefits:

- **Lower prices.** For instance, accommodation and travel contracted through online platforms tend to be cheaper than “traditional” providers such as hotels, house rentals, buses, train, taxis;
- **Greater disposable income for consumers** (due to cheaper prices) and **additional revenue for providers** (through the renting of underutilised assets, as developed in the following section). This, in turn, leads to greater purchasing power and may increase consumption;
- **Low transaction costs for exchanging goods and providing services** (i.e. search costs, contractual costs, online payment) which are provided by the platform;

¹⁴³ Flash Eurobarometer 467 *The use of the collaborative economy* (2018).

¹⁴⁴ Jeremy Rifkin, *The Third Industrial Revolution* (2011).

¹⁴⁵ European Commission (DG ENVI), *Study on the environmental potential of the collaborative economy* (2018).

- **Better matching of supply and demand through dynamic pricing**, i.e. the adaptation of prices by the platform according to real-time supply and demand. For instance, Uber raises the price of its offer during demand peaks, which creates incentives for drivers to offer rides and re-balances the market.¹⁴⁶ Similarly, Airbnb suggests prices according to demand in the local area, which incentivises consumers to a) go to cheaper areas that are less well served by traditional providers and b) increases overall demand for accommodation.¹⁴⁷

As shown in the conceptual framework in Chapter 1, sharing economy platforms can be complementary and/or substitutes to traditional businesses for the provision of goods and services. This has positive effects on consumers (more varied choice) and providers (opportunity to enter new markets) and, in turn, is expected to lead to greater economic growth.¹⁴⁸

Some benefits of the sharing economy are sector-specific. In the accommodation sector, Airbnb has been found to complement the hotel offer in case of high occupancy and/or high prices.¹⁴⁹ This also applies to freelancing or odd jobs platforms, which allow individuals (often non-professionals) to offer tailor-made services at a lower price. In transport, ride sharing or bike sharing schemes can work as a substitute for individual car use, or bus and train rides, and ride hailing platforms (such as Uber) for taxi rides. In finance, crowdfunding platforms can constitute an alternative to bank financing for projects of smaller scale. Finally, the sharing, swapping, or renting of goods (access) can act as a substitute for the purchasing of these goods (ownership).¹⁵⁰

In the context of Luxembourg, the collaborative accommodation offer has the potential to complement the traditional hotel supply. For instance, in the city of Luxembourg itself, short-term rentals could satisfy demand from individuals coming to work for the European institutions or other employers for short periods of time and with lower incomes (e.g. interns). On average, the Airbnb offer is cheaper than hotels, with EUR 48 for a private room and EUR 91 for an apartment, against EUR 115 for a room in a hotel (2018). Furthermore, there are on-going national initiatives to develop tourism for leisure, which constitutes an opportunity for the sharing economy to expand outside Luxembourg City. For instance, offers on the platform Abritel tend to cover the touristic regions of the North and the East (Müllerthal, the Esch region) instead of being solely concentrated in the city centre.¹⁵¹ This characteristic of the collaborative accommodation offer will be further developed below.

There is also a strong potential for collaborative transport schemes to replace private car use to minimise traffic congestion. A recent study by Inrix has found that Luxembourg is 15th on a ranking of countries with the most traffic jams in the world. On average, 33 hours per year are spent in congestion in the City of Luxembourg.¹⁵² High congestion is explained by the economic dynamism of the country, which leads to a high number of workers to commute daily from neighbouring countries, and is the cause of significant

¹⁴⁶ <https://help.uber.com/h/34212e8b-d69a-4d8a-a923-095d3075b487>.

¹⁴⁷ European Commission (DG JUST) "Airbnb case study" *Exploratory study of consumer issues on peer-to-peer platform markets* (2017).

¹⁴⁸ At the same time, it is important to also consider potential negative impacts on traditional businesses, such as lower demand and job losses (see Chapter 3).

¹⁴⁹ European Commission (DG GROW) Study on the regulations affecting the collaborative short term accommodation sector in the EU. Task 4: cross-analysis report. (2018)

<<https://publications.europa.eu/en/publication-detail/-/publication/da0708b8-5277-11e8-be1d-01aa75ed71a1/language-en/format-PDF/source-70757569>>

¹⁵⁰ IDDRI *The sharing economy: make it sustainable* (2014); European Commission (DG ENVI) *Study on the environmental potential of the collaborative economy* (2018).

¹⁵¹ Interview with Fondation IDEA and the Chamber of Commerce, 20/09/2018.

¹⁵² <http://inrix.com/scorecard/>.

negative externalities (e.g. air and noise pollution, diminution of well-being). Mobility is at the heart of the political agenda of Luxembourg, which is for example shown by the current promotion of ride sharing schemes by the government, the recent works on tramway and railroad lines, and by opinion polls which consistently rank 'mobility' as one of the biggest issues facing the country. The problem of congestion can also explain the relatively high number of transport platforms in the country (cf. bike sharing, car sharing, ride sharing schemes mentioned in the introduction).

Finally, the sharing economy can be used to increase efficiency in the provision of public services. This has been experienced by other European countries, e.g. France and the Netherlands. For instance, some French cities have used crowdfunding to fund local projects. In the Netherlands, public servants are allowed to expense revenues from ride sharing if they use it for their commute to work, or for work-related journeys. In Luxembourg, the sharing economy could be used by smaller localities to share public resources between them and realise savings on public equipment (e.g. street cleaning machines).¹⁵³

The regulatory implications of sharing economy activities differ according to the business models under scrutiny. For instance, sharing economy platforms based on the sharing, swapping or lending of assets are not regulated as professional activities, whereas this could be the case for others, e.g. short-term rental platforms. In the latter case, it is important that regulations do not unduly restrict access to the market for providers of sharing economy services, in order not to limit access to the benefits outlined above.

As emphasised by the European Commission Communication (2016), it is important to adapt the relevant regulations to the specificities of the collaborative economy, as opposed to the traditional sector, which will be further emphasised in the next chapter. Regulation of conventional providers has often been devised to reduce risks for consumers and businesses. But sharing economy providers often offer services of a smaller size/extent and on a less frequent basis than their traditional economy competitors and, as a result, any fixed regulatory burden is relatively costlier for them. This should be taken into account when framing policies affecting sharing economy businesses.

II. Employment opportunities

The sharing economy allows new providers to enter traditional markets for the supply of goods and services. According to the European Commission, the sharing economy accounts for 0.15% of EU employment with 394,000 persons employed in the sector (directly, i.e. by the platforms, and indirectly, i.e. by providing services on the platforms). This percentage is higher in Luxembourg (0.45%), due to the small size of the country's population.¹⁵⁴

The transport sector has been found to generate the most jobs with about 125,000 persons working in this area in Europe, followed by the accommodation sector (113,000 persons employed) and the online skills sector (corresponding to the exchange of services, or "gig economy" in our study – 89,500 persons employed). It should be noted that the European Commission study includes ride hailing services (i.e. private hire vehicle platforms such as Uber) in the transport sector, which explains high employment figures compared to the other sectors (with Uber accounting for 70% of total platform employment in the EU).¹⁵⁵

¹⁵³ Interview with Fondation IDEA and the Chamber of Commerce, 20/09/2018.

¹⁵⁴ European Commission (DG GROW) Study to monitor the economic development of the collaborative economy at sector level in the EU-28 (2018).

¹⁵⁵ European Commission (DG GROW) Study to monitor the economic development of the collaborative economy at sector level in the EU-28 (2018).

In Luxembourg, the services sector generates more jobs, i.e. three quarters of the sharing economy employment (78%), followed by the accommodation sector (21%). Transport and finance platforms account for a very small share of the country's sharing economy employment.¹⁵⁶ This can be explained by the absence of ride hailing platforms (e.g. Uber) in the country, and by the slow take up of crowdfunding platforms in the country, as mentioned in the introduction.

Luxembourg has suffered less from the financial crisis than other countries in Europe, and the labour market situation is good, with a low-level of involuntary part-time work and hazardous work and high revenue per capita.¹⁵⁷ Although the need for additional revenue is less stringent than in other countries, the benefits of the sharing economy generating new forms of employment should not be underestimated. There are several ways for the sharing economy to generate jobs, depending on the sector considered:

- In the **services sector**, potential employment impacts are associated with the provision of services, which can be high-skilled (freelancer platforms such as Skilltroc or Partimerz) or lower-skilled (household services platforms such as Minijob, dog sitting such as Pawshake). A JRC study shows that online platform work still concerns a small share of employment, with only 10% of the adult population having ever used an online platform for the provision of some type of service, while less than 8% would engage with this kind of work with some frequency.¹⁵⁸ This observation applies to Luxembourg, where platform work is still at an early development phase.¹⁵⁹
- In the **accommodation sector**, the employment impacts are mainly related to the provision of short-term rentals. The direct employment impact refers to jobs created by platforms running such services, which is little compared to the amount of work created for providers of such services – the hosts – although this work is officially not counted as employment if the service provider is not registered as a business.
- In the **transport sector**, employment mostly comes from the drivers providing transport services. These numbers are much higher for ride hailing services, which does not apply to the Luxembourg context. Ride sharing could also generate some employment in the case it would be done with a profit-making motive, which is usually prevented by platforms themselves (for instance, BlaBlaCar does not allow providers to set prices that would make them generate a profit).
- Finally, there is very little employment impact for in the **finance sector** apart from the direct employment created by the platform, as crowdfunding activities (excluding crowdinvesting and crowdlending) are usually peer-to-peer based and therefore less factor of job creation.

The sharing economy can also generate indirect forms of employment. For instance, tourists staying in collaborative forms of accommodation also spend their money in local shops and restaurants, just like they would have done in a traditional hotel or bed & breakfast. Airbnb states that its guests stay longer than average hotel guests and therefore spend more money, 42% of which is spent in the surroundings of the place where they stay.¹⁶⁰ This spending in the local economy supports local jobs, as will be developed in the

¹⁵⁶ European Commission (DG GROW) Study to monitor the economic development of the collaborative economy at sector level in the EU-28 (2018).

¹⁵⁷ Interview with Fondation IDEA and the Chamber of Commerce, 20/09/2018.

¹⁵⁸ JRC *Platform Workers in Europe* (2018).

¹⁵⁹ Interview with Fondation IDEA and the Chamber of Commerce, 20/09/2018.

¹⁶⁰ See Airbnb Economic Impact studies: <https://blog.airbnb.com/economic-impact-airbnb/>.

section below (impacts on local communities). For several cities and countries, Airbnb has estimated its impact on local jobs, based on the spending of its guests.¹⁶¹

For sharing economy providers, one of the main benefits of digital platform work compared to more traditional forms of employment is flexibility, in spatial, temporal and organisational terms. Platform work allows more flexibility and autonomy on where and when to work, which has been found as the main motivation for workers performing these types of activity.¹⁶² As the following chapter will develop, this flexibility has also some negative consequences (i.e. precarious working conditions, lack of access to social protection, training, etc.) which should be taken into account when devising policy measures.

In order to favour the provision of services in the sharing economy, and in turn direct and indirect employment, it is important that sharing services are explicitly allowed, which avoids uncertainty over applicable rights and obligations for collaborative economy actors. In the accommodation sector, it is important to clearly define the scope of short-term rentals and the rights and obligations of hosts, whether peers or professionals, as the next chapter will develop. In addition to clear definitions for collaborative economy services, a differentiation between peer and professional activities along with specifications of which regulations apply to which type of provider have been found to have encouraging effects for the collaborative economy in the EU Member States, and is also applicable to Luxembourg.

III. Innovation and digitalisation

As mentioned in the two previous paragraphs, the sharing economy creates new opportunities for consumers and businesses and can therefore make an important contribution to economic growth. Online platforms are in general important drivers for business innovation, and the development of the sharing economy can trigger further engagement from consumers and businesses with digital and innovation services, which can generate substantial economic benefits.

Luxembourg is in a good position to seize the benefits of an emerging sharing economy innovation ecosystem. The country has a dynamic economy with an innovation policy focused on start-ups and digitalisation, as outlined in its Third Industrial Revolution Strategy. It is counted among the EU Innovation Leaders in the EU 2018 Innovation Scoreboard¹⁶³, thanks to a high level of public and private investment in education, research and skills, development, innovation partnerships with academia, and an innovation-friendly business environment (digital infrastructure notably). Finally, Luxembourg ranks 5th in the EU Digital Economy and Society Index¹⁶⁴, with high scores in connectivity, digital skills and Internet usage by citizens.

The sharing economy is also associated with a positive image, associated with modernisation and innovation, which has the potential to attract young and qualified workers contributing to economic growth.¹⁶⁵

¹⁶¹ See Airbnb Economic Impact studies: <https://blog.airbnb.com/economic-impact-airbnb/>.

¹⁶² JRC *Platform Workers in Europe* (2018).

¹⁶³ http://europa.eu/rapid/press-release_MEMO-18-4224_en.htm.

¹⁶⁴ <https://ec.europa.eu/digital-single-market/en/scoreboard/luxembourg>.

¹⁶⁵ Written notes received from Fondation IDEA, 09/09/2018.

IV. Impacts on the traditional economy

As well as creating new markets and expanding existing ones, sharing economy businesses enter new markets that were so far used by traditional service providers, i.e. hotels, taxis, retail. This creates threats (e.g. job losses, decrease in revenues due to competition with new providers) but also opportunities for the traditional sector to adapt to more innovative ways of providing services.

First, online platforms can be used by businesses of all kinds to enhance the quality of service provision and access to a wider customer base. In general, online platforms are a way to facilitate business participation in the market, as they can allow them access to a wider market than they would otherwise reach through their own means/websites. This is especially true across borders as outlined by several European Commission reports.¹⁶⁶ Furthermore, by analysing sales and looking at customer reviews, online platforms can help businesses to better understand their market and adapt their products to consumers' needs. For instance, the European Commission underlines that social networks can be an important tool for companies to promote themselves and establish direct contact with customers.¹⁶⁷ Finally, online platforms provide businesses with a number of productivity-enhancing tools, i.e. low-cost ways of processing payments, simple accounting software for small companies, platforms that help businesses run events, etc.

These benefits of online platforms apply to the sectors impacted by the sharing economy, especially the accommodation and goods sector. For instance, small hotels and bed and breakfasts increasingly use Booking.com and Airbnb as ways to enhance their visibility and reach customers that they would not reach otherwise. In the retail sector, the use of ecommerce platforms facilitate access to customers, including from neighbouring countries.¹⁶⁸

Competition from sharing economy actors can be also a way to trigger innovation in the traditional sector. In the accommodation sector, traditional operators, i.e. hotels and bed and breakfasts, have attempted to diversify their services by working with and on sharing economy platforms. For instance, hotels and beds and breakfasts can be found both on Booking.com and Airbnb. In the mobility sector, taxi services have embraced digitalisation in developing app-based platforms, such as Cabify in Spain, or Webtaxi and Colux in Luxembourg.

It should also be mentioned here that there is an increasing convergence of sharing and traditional economy services towards similar business models. On the one hand, traditional providers increasingly use online platforms that were before supporting the exchange of services between peers. On the other hand, sharing economy services become more comprehensive and integrate more diversified services. For instance, the platform Uber has the ambition to develop into a mobility platform and integrate several mobility solutions such as public transport, taxi, bikes, etc. Similarly, Airbnb now sells "experiences", e.g. activities, guiding services, etc. rather than simple accommodation.

V. Impacts on local communities

The sharing economy can also have positive impacts on local communities, first through positive impacts on the municipal economy. According to a study on collaborative

¹⁶⁶ Commission Staff working document on Online platforms, COM(2016) 288.

¹⁶⁷ 29% of SMEs using social media claiming that their situation has improved over the period 2010-2013. See: European Commission *Use of social media by European SMEs* (2013).

¹⁶⁸ European Commission (DG GROW) *Study on business-to-business relations in the online platform environment* (2017).

accommodation, the offer of short-term rentals is more dispersed than hotels, which tend to be concentrated in the city centre.¹⁶⁹ The collaborative accommodation offer also targets different kinds of travellers, with a lower budget, seeking local experiences, and who tend to stay longer and to spend money in local shops. According to a study by Airbnb, 42% of guest spending occurs in the neighbourhood they stay in, primarily on food services and shopping, and Airbnb guests stay 2.1 times longer than hotel guests.¹⁷⁰

The sharing economy can also bring substantial non-financial benefits. It is said to strengthen the sense of belonging to a community and enhances local community life. Local platforms allowing the exchange of goods and services between neighbours create social ties by allowing people to meet each other. This is the rhetoric of the Paris-based platform “Lulu dans ma rue”¹⁷¹, which brings together people for the provision of small services (DIY, housecleaning, etc.) The platform’s ambition is to create communities of neighbours. To do so, the initiative re-uses old newspaper kiosks into “*concergeries de quartier*” where platform users can meet and exchange in person.

These benefits are associated with platforms which do not necessarily involve monetary transactions but rather sharing, swapping, or lending, and are not necessarily online. These platforms are labelled as part of the “true sharing”, whose economic impact is less significant, but which can generate important social benefits. In Luxembourg, such initiatives consist of Ding Dong, Tauschkrees or Transition Minett. Tauschkrees, for instance, allows the exchange of items (goods, services, time), against other items or a special currency (rocks) solely in use among platform users. These initiatives are not necessarily supported by an online platform: Transition Minett consists in the participation in local projects, and the website does not intermediate any exchange.

VI. Environmental impact

Sharing economy platforms tend to promote themselves as environmentally friendly. This is often based on the intuition that sharing, and thus the optimisation of the use of goods and facilities, should be less resource-intensive and better for the environment.¹⁷² Some platforms also promote the use of environmental-friendly assets, e.g. Uber promoting the use of electric cars¹⁷³, or in Luxembourg car sharing platforms such as Carloh or CityMov providing electric vehicles/bikes. According to a survey by PwC, 76% of US adults familiar with the sharing economy believe that it is better for the environment.¹⁷⁴

In reality, however, the environmental effects of the collaborative economy are more complex, as noted by a European Commission study on the topic.¹⁷⁵ As the conceptual framework in Chapter 1 indicates, not only the direct effects (e.g. reduction of the number of cars produced due to sharing, or reduction of the hotels constructed due to renting

¹⁶⁹ European Commission (DG GROW) *Study on regulations affecting the collaborative short-term accommodation sector* (2018).

¹⁷⁰ See Airbnb Economic Impact studies: <https://blog.atairbnb.com/economic-impact-airbnb/>.

¹⁷¹ <https://www.luludansmarue.org/>.

¹⁷² IDDRI (2014); Juliet Schor “Debating the Sharing Economy” *The Great Transformation Initiative* (2014); Juliet Schor and Robert Wengronowitz “The new sharing economy: enacting the eco-habitus” in Maurie J. Cohen, Halina Szejnwald Brown, Philip J. Vergragt (eds) *Social Change and the Coming Post Consumer Society – Theoretical advances and Policy Implications* (Routledge London 2017).

¹⁷³ <https://www.theverge.com/2018/6/19/17480044/uber-electric-vehicle-ev-driver-cash-incentive>.

¹⁷⁴ PwC *The Sharing Economy* (2015)

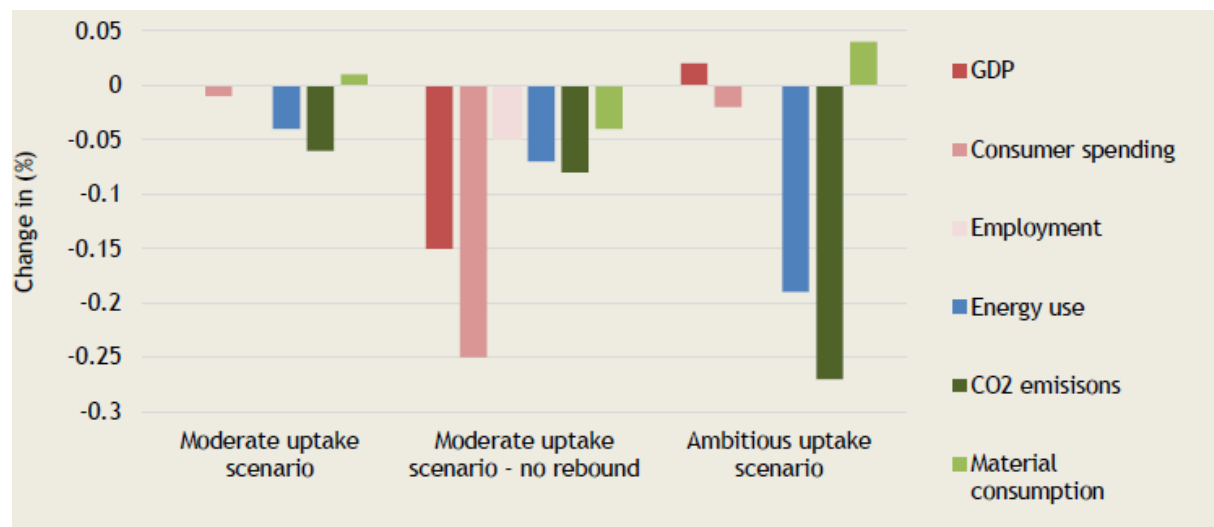
https://www.pwc.fr/fr/assets/files/pdf/2015/05/pwc_etude_sharing_economy.pdf.

¹⁷⁵ European Commission (DG ENVI) *Environmental Potential of the Sharing Economy* (2018).

rooms in private homes) should be taken into account, but also the less visible changes that are set in motion as a result of the new practices.¹⁷⁶

The figure below shows the estimated net impact of the collaborative economy on GDP, the environment, jobs, consumer spending, energy, CO2 and consumption to 2030 under different uptake scenarios. Under the ambitious uptake scenario (10% market share for the collaborative economy in transport, accommodation and personal goods) and including any rebound effects, the overall impact on Co2 emissions is estimated at slightly more than 0.025% across Europe.

Figure 9: Economic impacts (red) and environmental impacts (green) for the three combined scenarios compared to the baseline.



Source: *Environmental potential of the collaborative economy, 2017*

One of the changes that may increase the environmental footprint is the “rebound effect”, the consumption of additional goods through the gain of purchasing power, in this case resulting from sharing/renting goods. Authors distinguish between two types of effect:¹⁷⁷

- The direct rebound effect occurs when efficiency improvements and the associated decrease of costs result in increased consumption of the same product or service. This way, more of the same economic activity is created that would not have existed otherwise, i.e. more travel, more automobile rides.¹⁷⁸
- The indirect rebound effect takes place when the savings are used for the consumption of other products or services.

For example, if Airbnb makes travel less expensive, then the money saved could be spent on more travel than previously affordable.¹⁷⁹ This could potentially result in the

¹⁷⁶ Koen Frenken and Juliet Schor, “Putting the sharing economy into perspective” *Environmental Innovation and Societal Transitions* (23) (2017), 3-10.

¹⁷⁷ Henri Verboven and Lise Vanherck The sustainability paradox of the sharing economy *UmweltWirtschaftsForum* (24) (2016).

¹⁷⁸ Juliet Schor “Debating the Sharing Economy” *The Great Transformation Initiative* (2014).

¹⁷⁹ Fondation IDEA, Avis Annuel 2017: Monde de Partage ou Partage du Monde ? (12 April 2017) <http://www.fondation-idea.lu/wp-content/uploads/sites/2/2017/04/Avis-annuel-2017-IDEA-Monde-du-partage-ou-partage-du-monde.pdf>, 45.

environmental impact from increased travel outweighing other possible environmental savings, which should be considered when assessing benefits.

IDDRi discusses the conditions for improving the sustainability of the sharing economy. According to the authors, important requirements for environmental sustainability are:

- Quality of the shared good. Goods with a long lifespan and a high recyclability (and actual recycling) logically have more positive environmental impacts.
- Optimisation of transportation. Transport is needed to make shared goods available. Impact is more limited for swapping/sharing/lending business models, as they are based on the geographic proximity of users.
- Consumption patterns. For instance, individuals using car sharing services also tend to use public transport more, therefore changing their habits to be more sustainable.

The most obvious impacts on the environment are realised by transport platforms. This is especially true for ride sharing platforms, as they increase the occupancy rate of the car, and therefore trigger savings in energy consumption and emissions. However, other traditional transport modes (e.g. train, tram and bicycle) are even more environmentally friendly, as they use less energy to transport one person over one km, according to the European Commission study.¹⁸⁰ In other words, collaborative car use is better for the environment than personal car use (when travelling an equal distance by car), but the best transport options from an environmental viewpoint are still walking, cycling or using public transport. Ride sharing is the only business model that leads to an overall reduction of the environmental impacts on a person-km level compared to the traditional transport mix, as by increasing the occupancy rate of the car, all impacts (such as fuel consumption and emissions) are reduced accordingly. Car sharing and ride hailing business models have a more limited effect, since it is more difficult to accomplish the same by improving the (per km) performance of the cars.

According to the European Commission, CO₂ emissions are expected to decrease by approximately 7 Mtons, which is equivalent to a bit more than 3% of the total emissions from the entire transport sector in 2030 with the development of the sharing economy. This is almost solely caused by reduced energy consumption in the use phase (reduced fuel use).

One of the main factors that determines the environmental impact of collaborative accommodation is the occupancy rate of the property. A 100% occupancy rate has a lower environmental impact per person/per night than a 30% occupancy rate. It implies that renting out empty rooms in a property, or renting out properties only when the house owner is not there, has more positive environmental impacts than renting out properties for business purposes (i.e. where occupancy is linked to market fluctuations, or periods of the year).

The environmental impact of the collaborative accommodation is also lower if the building and residence itself have better energy efficiency and use more sustainable materials. Electricity and heating are key factors contributing to the environmental impacts. The electricity use is the most important factor distinguishing a traditional tourist accommodation from short-term rental properties, assuming the electricity use in the latter is similar as in a private residence.

The European Commission study also highlights that a stay in a collaborative economy accommodation has, in general, a lower environmental impact than a stay in at a luxury

¹⁸⁰ European Commission (DG ENVI) *Environmental Potential of the Sharing Economy* (2018).

or a midscale hotel, due to a reduction in services and goods use (e.g. bed sheets, towels). The impact of a budget hotel is close to that of the average collaborative economy accommodation. One interesting aspect is that ultimately, environmental impacts can increase if the money saved by using collaborative accommodation platforms leads to more trips.

There are also some positive impacts in the exchange of goods sector, but they are linked to the way goods are transported from consumers to providers. The European Commission study on the environmental impacts of the sharing economy has found that the environmental impact was significantly lower for goods that were exchanged using non-motorised transport than car transport. The impact also depends on the energy consumption of the good being exchanged. For goods that consume energy during use, collaborative business models have a higher potential for reducing the environmental impact than goods that typically have no energy consumption. An important parameter that determines the environmental impact reduction potential is the transport (distance and transport mode) for picking up the goods at the sharing point. As opposed to the transport and accommodation sectors, reduced environmental impacts in the consumer durables sectors originate from reduced impact in the production phase, not the use phase.

Interestingly, the consumer durables sector is the only sector for which the European Commission study on the impacts of the sharing economy shows a reduction in GDP, as people buy fewer products and services which also results in a reduction in the overall environmental impact. This can be explained by the fact that the sharing of consumer durables affects many expenditure categories simultaneously and also by the ambitious assumptions regarding the number of good sharing users.

Environmental benefits of the sharing economy could be unlocked by stimulating car sharing and ride sharing, combined with better connections and access to public transport options, and facilitation of walking and cycling. In the accommodation sector, priority should be given to models where occupancy is maximised. As regards goods, it is important to foster design requirements that increase the durability and shareability of consumer durables.

CHAPTER 4: Challenges of the Sharing Economy

The sharing economy is a phenomenon that generates manifold challenges and opportunities. These, in turn, weigh on the definition of related public policy strategies. We have carried out a detailed analysis of the sharing economy and the challenges and opportunities it raises with specific regard to the Luxembourg context. Our analysis has revealed seven distinct elements that require attention in this context.

First, it cannot be ignored that most expressions of the sharing economy could not have emerged without the large quantities of data that are now collected as well as innovative means of storing and processing such data. While these transformations have more broadly enabled the emergence of a data economy with much potential for the European Union's Digital Single Market, they also raise the question of the adequate treatment of **personal data** collected and processed in the sharing economy context. Below, we assess the implications of the General Data Protection Regulation for sharing economy platforms and highlight an important point of tension likely to cause debate in the future. Indeed, **the right to data portability**, one of the few genuine innovations of the GDPR compared to the earlier data protection regime, does not apply to reviews, which bears the risk of creating lock-in that is preventive of further innovation in this area. To address the negative consequences of the absence of a right to data portability in connection with user reviews, we recommend that the Luxembourg government addresses this issue at EU level to determine whether legislative intervention is required. Alternatively, we suggest that Luxembourg encourages alternative technical solutions that further this objective, also at EU level.¹⁸¹

Second, our analysis engages with the implications of the sharing economy on **consumer protection** law. We rely on a 2017 European Commission study¹⁸² to evidence that the emergence and development of online platforms can have detrimental effects on consumers. The study reports that half of consumers active on online platforms had experienced at least one problem in 2016. We further carried out a detailed analysis of European and national consumer protection laws to examine how current legal frameworks can be applied to these novel business models. This has allowed us to unveil that the application of these existing legal frameworks is prone to generating **unintended effects** in the sharing economy, defeating the original rationale of protecting the weaker party. Indeed, consumer protection law is built on the assumption that there are two parties – a trader and a consumer, and that rights and obligations are split between them. This model cannot easily be transposed to the sharing economy's triangular relations (platform, user, provider) or to peers, which may, in addition, be both a provider and a consumer (the 'prosumer'). We recommend that Luxembourg **monitors** such developments and engage in related debates at EU level. We further encourage the Luxembourg government to **make information available online for users of sharing economy services to consult, and to consider compelling platforms to do the same**. In addition, legislative reform may be envisaged according to which platforms themselves must flag whether a user is a consumer or a provider, and what legal obligations thus apply (as has been done in jurisdictions such as France).

Third, we introduce the **changing nature of dispute resolution** provoked by the spread of online platforms. Sharing economy platforms indeed often make use of their own online dispute resolution mechanisms. While this can generate welcome efficiency gains, it may endanger consumer protection. It is thus suggested that the Luxembourg government

¹⁸¹ See, by way of example, <https://solid.mit.edu/>.

¹⁸² European Commission (DG JUST) *Exploratory study of consumer issues on online peer-to-peer platform markets* (2017).

should **monitor** related developments and **inform consumers about their rights in such scenarios**.

Fourth, sharing economy business models are evaluated from the perspective of **taxation**. At present there remain uncertainties regarding the **fiscal implications of such transactions** both in relation to direct and indirect taxation. Again, we encourage the Luxembourg authorities to make **information regarding fiscal obligations available online** or to consider cooperating with platforms so that they can **communicate related information directly to users**. This can be done at national level and does not presuppose legislative intervention, as shown by the example of Airbnb and some EU cities, and the platforms Uber and Taxify in Estonia (see section IV. F). Some elements, such as whether swaps are subject to VAT or not, should however be addressed at **EU level** and may require legislative action. In particular, thresholds are needed that clarify when an actor acts '*dans le cadre de son entreprise*' under Article 2(a) of the Luxembourg VAT law and which sharing economy transactions are caught by direct taxation under the Law of 4 December 1967.

Fifth, we focus on the implications of the sharing economy for the **accommodation** sector, an area where sharing has been subject to vivid debate, and the development of which has been significant (+ 30% between 2017 and 2018 in Luxembourg according to Fondation IDEA). **Regulation** can be used as a means of limiting or encouraging sharing practices in the housing sector and many public authorities in the EU have indeed had recourse to that option. **In Luxembourg, there remain uncertainties regarding how existing regulation applies to sharing models in the housing sector and flat or house sharing is discouraged by an outdated legal framework**. In particular, there is uncertainty as to whether and when registration duties under Article 18 of the Law of 17 July 1960 apply. As a consequence, it may be opportune for Luxembourg to promote genuine forms of sharing by **providing information** about related legal rights and obligations to citizens and to **update outdated legal requirements to promote some forms of sharing**.

Sixth, we examined the relationship between employment relations and the changing nature of work. As previously mentioned, the sharing economy is estimated to account for 0.45% of Luxembourg total employment, counting the accommodation, transport, finance, and services sectors.¹⁸³ The reliance on platforms to intermediate work forms part of a broader transformation of work and presents risks as well as benefits. Under Luxembourg law, some form of platform-mediated work will be classified as an **employment relationship** and trigger the application of the related legal regime. In other circumstances, self-employed users will be required to obtain an **autorisation d'établissement under the Law of 2 September 2011**. This requirement may discourage the emergence of a vibrant sharing economy involving peers. If the Luxembourg government wishes to encourage some forms of sharing **relaxing these requirements** in some circumstances would be a policy option.

Finally, we assess the **potentially disruptive impact blockchain technology** may come to have on current platform-based sharing economy business models. Our analysis provides an overview of the distinct features of this technology and its potential impact on digital intermediaries, and therefore, the sharing economy. We recommend that the Luxembourg government **monitors the technical developments** in this field and identify their likely **impact on the Grand Duchy**. A **pilot project at the intersection of blockchain and the sharing economy** could be a useful step in that endeavour.

¹⁸³ European Commission (DG GROW) *Study to monitor the economic development of the collaborative economy at sector level in the 28 EU Member States* (2018).

I. The sharing economy and the General Data Protection Regulation

The European Union's General Data Protection Regulation ('GDPR') became binding on 25 May 2018.¹⁸⁴ Online sharing economy platforms are bound by its various requirements where they process **personal data**; a notion that is to be interpreted broadly under the Regulation.¹⁸⁵ This implies that under the GDPR intermediary platforms will often qualify as data controllers, a notion that must also be interpreted broadly¹⁸⁶, and must accordingly comply with the GDPR's variegated requirements.¹⁸⁷ Even where no digital platforms are used, operators of sharing economy business models will more often than not have to pay close attention to the GDPR as they will in most circumstances process personal data such as users' name, address or payment information.

The GDPR is accordingly a legal framework that impacts on most expressions of the sharing economy. Exceptions would be instances where sharing occurs anonymously, such as book boxes like the one in Esch-sur-Alzette, where users can anonymously leave books they have finished reading and take others out.¹⁸⁸ In most other circumstances, personal data is collected to identify the users or to map their preferences and usage history. Where this is the case, **the various requirements of the GDPR must be honoured**.

Below, we test the application of GDPR requirements on sharing economy platforms. This analysis unveils that most of these obligations can be implemented by the relevant operators. Indeed, there are **no indications that data protection in the sharing economy should trigger complications beyond those also known in other sectors**. Nonetheless a particular reason for concern is identified in the form of the GDPR's **right to data portability**, one of the few genuine innovations brought about by the EU's new data protection scheme compared to the 1995 Data Protection Directive. This right was designed to enable users to port their data from one provider to another. This serves to strengthen the data subject's control over her personal data and in turn promises to have beneficial effects on competition and innovation. However, the formulation of the right to data portability appears to exclude its application to the online reviews provided on sharing economy platforms. This likely can be expected to negatively impact on competition and innovation in the market.

A. Sharing economy platforms and data

Without personal data processing the current platform-enabled sharing economy would not have surfaced. The sharing economy has been facilitated by a combination of recent (and not so recent, such as the Internet) innovations. These technological innovations have enabled a **more efficient matching of supply and demand** than was feasible in offline markets. Such matching is however only possible due to the collection and processing of personal data such as a person's name, residence, age, employment status, skills and qualifications, as well as detailed information in relation to personal

¹⁸⁴ Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data [2016] OJ L119/1.

¹⁸⁵ Article 4(1) GDPR defines personal data as 'any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person'.

¹⁸⁶ See further Case C-131/12 *Google Spain* [2014] EU:C:2014:317; Case C-210/16 *Wirtschaftsakademie Schleswig Holstein* [2018] EU:C:2018:388.

¹⁸⁷ Article 4(7) GDPR defines a data controller as 'the natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data; where the purposes and means of such processing are determined by Union or Member State law, the controller or the specific criteria for its nomination may be provided for by Union or Member State law'.

¹⁸⁸ See further: <https://www.wort.lu/de/mywort/esch-alzette/news/minnettemetropole-fuehrt-escher-bicherschaf-ein-oeffentliche-bibliothek-fuer-jedermann-58fe20f8a5e74263e13b2f59>.

preferences (such as dietary preferences that are relevant for culinary apps or travel and accommodation preferences that are relevant for home sharing ventures). Sometimes, sensitive personal data is also in play, such as where users reveal details concerning their health (such as allergies) or where information concerning racial or ethnic origin is disclosed.¹⁸⁹ Where such personal data is processed, the obligations of the General Data Protection Regulation must be adhered to.¹⁹⁰

B. General obligations arising under the GDPR

Given that personal data is processed in most instances of the sharing economy, the GDPR's manifold legal obligations apply to online intermediary platforms in their capacity as data controllers.¹⁹¹ Below, we provide an overview of the most significant obligations and test their application to the sharing economy.

1. The need for a lawful basis

In order to be able to process personal data in the first place platforms must make sure that there is a **lawful basis** that enables them to carry out such processing.¹⁹² The GDPR envisages a number of different lawful basis' that justify personal data processing.¹⁹³

First, the processing of personal data can take place after **the data subject has consented** to such processing.¹⁹⁴ Consent can be given through electronic means such as in ticking a box or choosing the relevant technical settings.¹⁹⁵ Where consent is gathered in this form, that process must be clear, concise and not unnecessarily disruptive to the use of the service.¹⁹⁶ Articles 4(11) and 6(1)(a) GDPR do not necessarily require explicit consent from the data subject. Rather, as confirmed by Recital 32 GDPR, consent could be implicit.¹⁹⁷ Yet, as the controller has to be able to demonstrate that the data subject has consented to the personal data processing by virtue of the principle of accountability, platforms will seek to obtain explicit consent.

Recital 43 GDPR further underlines that in case of a **clear imbalance between the data subject and the data controller**, consent is not considered to be freely given, such as in the case of an employment relationship. Where a data subject is 'in a situation of dependence' on the data controller consent cannot be considered to be freely given.¹⁹⁸ This raises the question of **whether consent can be considered to be a lawful basis of processing where a user has grown dependent of a sharing economy platform**. Indeed, due to the existence of network effects, platforms are first dependent on users to grow, but where successful users ultimately become dependent on platforms to carry out their activities, as they no longer have a direct link to their customers or providers. Below,

¹⁸⁹ See further Article 9 GDPR.

¹⁹⁰ Note that this report only evaluates the obligations arising in relation of personal data and does not address the legal status of non-personal data.

¹⁹¹ Data controller is the technical term embraced by the GDPR to determine the entity determining the purposes and means of data processing, which must adhere with numerous obligations under the legal framework.

¹⁹² There are multiple grounds that can legitimize the processing of personal data. Here, we focus on those of particular relevance to platforms in the sharing economy.

¹⁹³ It is worth noting that additional safeguards apply where the data subject is a child – a scenario that is not examined here.

¹⁹⁴ Article 6(1)(a) GDPR.

¹⁹⁵ See Recital 32 GDPR.

¹⁹⁶ Recital 32 GDPR.

¹⁹⁷ Recital 32 speaks of 'another statement of conduct which clearly indicates in this context the data subject's acceptance of the proposed processing of his or her personal data'.

¹⁹⁸ Article 29 Working Party, Opinion 8/2001 on the Processing of Personal Data in the Employment Context, 5062/01/EN/final.

we provide further detail about such network effects and their legal implications when examining the right to data portability.

Consent is, however, not the only ground on the basis of which lawful data processing can occur. The GDPR in fact also foresees that personal data processing can take place where it is **necessary for the performance of a contract or pre-contractual relations**.¹⁹⁹ It can be expected that sharing economy platforms prefer to rely on this option as personal data processing by their algorithms will in most cases be necessary to match users and often a contract will be entered into for these purposes. A third option can be found in the form of **the data controller's (the platform) legitimate interests or the legitimate interests of third parties** in so far as these interests are not overridden by the data subject's fundamental rights and freedoms.²⁰⁰ Whereas this remains a less explored avenue, it can be expected that this avenue for personal processing becomes increasingly attractive for data controllers in the future.

2. General principles of personal data processing

Where digital intermediary platforms qualify as data controllers for the purposes of EU law, they must make sure that personal data is processed in accordance with the GDPR. This means that:

- personal data processing must be **lawful, fair and transparent**²⁰¹
- personal data can only be collected for **specific, explicit and limited purposes**²⁰²
- personal data **must not be processed further** in a manner that is **incompatible** with these purposes²⁰³
- personal data that is collected must be **adequate, relevant and limited** for the purposes of processing is collected²⁰⁴
- personal data that is collected must be **accurate**²⁰⁵
- personal data shall not be stored **longer than necessary**²⁰⁶
- personal data must be processed with **integrity and confidentiality**.²⁰⁷

Where digital intermediary platforms handle personal data, they must make sure that these principles are adhered to. Furthermore, these actors are bound by the **principle of accountability**, which requires them to be able to demonstrate compliance with the above principles.²⁰⁸ What is more, platforms must comply with the various data subject rights under the GDPR.

C. Data subject rights

The GDPR provides a number of **qualified rights** that data subjects, that is to say the individual the data comes from, are free to exercise in relation to their personal data. Online intermediary platforms in the sharing economy must accordingly be ready to fulfil numerous duties towards data subjects. Some of these duties must always be honoured, including that data controllers comply with the requirements of **transparency**,

¹⁹⁹ Article 6(1)(b) GDPR.

²⁰⁰ Article 6(1)(f) GDPR.

²⁰¹ Article 5 (1) GDPR.

²⁰² Article 5 (1) GDPR.

²⁰³ Article 5 (1) GDPR.

²⁰⁴ Article 5 (1) GDPR.

²⁰⁵ Article 5 (1) GDPR.

²⁰⁶ Article 5 (1) GDPR.

²⁰⁷ Article 5 (1) GDPR.

²⁰⁸ Article 5(2) GDPR.

correctness, and limitation. Further, **data controllers ought to provide information** about the data processing to data subjects in accordance with Articles 13 and 14 GDPR. Other data subject rights are only triggered at the data subject's request. These are qualified rights that data subjects can exercise at will.

In accordance with the **right to access**, the data subject is entitled to obtain confirmation from the controller as to whether her personal data is processed. Where this is the case, she has a right to obtain access to (i) the personal data as well as (ii) additional information, including the purposes of processing, the categories of personal data concerned, the recipients or categories of recipients to whom personal data have or will be disclosed, the envisaged period of storage of personal data (where possible), whether data is automatically processed as well as the existence of other data subject rights under the GDPR.²⁰⁹ Under the right to access, the data controller shall moreover 'provide a copy of the personal data undergoing processing' so long as this doesn't adversely affect the rights and freedoms of others.²¹⁰

Under Article 16 GDPR, the data subject has a **right to rectification**. This means that the data subject is entitled to obtain from the controller the rectification of inaccurate personal data concerning him or her. It also entails a right to have incomplete personal data completed, including by means of providing a supplementary statement where this is compatible with the purposes of the personal data processing.²¹¹

Article 17 GDPR enshrines the **right to be forgotten** (the right to erasure).²¹² In accordance with this provision, the data subject has the right to obtain from the data controller the erasure of personal data concerning him or her in a limited number of circumstances.²¹³ This is the case where the personal data is no longer necessary for the original purposes of processing; where the data subject withdraws consent (where consent was the legal basis of processing) and there is no other legal ground for processing, where the data subject objects to the processing and there are no overriding legitimate grounds for the processing²¹⁴, where personal data has been unlawfully processed, where it has to be erased to comply with a legal obligation or where the data have been collected in relation to the offer of information society services to a child under Article 8(1) GDPR.²¹⁵ It is important to realise that **all data subject rights, including the right to erasure, are qualified rights**. In relation to the right to erasure, this entails that the controller must not comply with a request for erasure caught by the various cases mentioned above where keeping the data subject's personal data is necessary for the exercise of the right of freedom of expression and information, compliance with a legal obligation or the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller, for reasons of public interest in the domain of public health, certain archiving purposes or in the context of legal claims.²¹⁶

Under Article 18 GDPR; the data subject is entitled to a **right to restriction of processing** in limited cases.²¹⁷ These include where the accuracy of the personal data is contested (in that case processing is to be restricted until the controller has been able to verify the accuracy of the data), where processing is unlawful and the data subject opposes its deletion, where data is no longer required for the purposes of processing but the data

²⁰⁹ Article 15 (1) GDPR.

²¹⁰ Articles 15 (3) and 15 (4) GDPR.

²¹¹ Article 16 GDPR.

²¹² See also Case C-131/12 *Google Spain* [2014] EU:C:2014:317.

²¹³ Article 17(1) GDPR.

²¹⁴ See further Article 21(1) GDPR.

²¹⁵ Article 17(1) GDPR.

²¹⁶ Article 17 (3) GDPR.

²¹⁷ Article 18 (1) GDPR.

is still needed by the data subject for the establishment, exercise or defence of legal claims or where the data subject objects to the processing under Article 21(1) GDPR and it is verified whether the legitimate grounds of the controller override those of the data subject.²¹⁸

Under Articles 12(3) GDPR, **the data controller shall provide information to the data subject** on the actions taken following a request under Articles 15-22 GDPR **without undue delay**, and at the latest within one month of receipt of the request. Where there are many or complex requests, that period can be extended to two further months.²¹⁹

The various data subject rights awarded by the GDPR **apply to online intermediary platforms in the sharing economy where these process personal data**. They must accordingly have the **necessary procedures** in place to deal with requests by data subjects to enforce their respective rights. Where such a request is within the boundaries foreseen by the GDPR; the platform must then comply with the request. While the existence of these legal requirements is the cause of sometimes significant **compliance burdens** for industries there are **no indications that any of the obligations arising under the GDPR should cause particular difficulty for the sharing economy**. There are no characterising features of these business models that appear to make compliance with data protection legislation more burdensome compared to other sectors. A different conclusion must, however, be reached in relation to the right to data portability.

D. The right to data portability under the GDPR

In accordance with the right to data portability, data subjects are empowered to port personal data from one data controller to another. This means that they can request that the personal data held by one controller is transferred to the data subject or another undertaking at their request. The right to data portability is thus an expression of the GDPR's objective of **giving data subjects more control over their personal data**. Article 20(1) GDPR provides that:

The data subject shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance from the controller to which the personal data have been provided.

The data subject has the right to have her personal data transmitted directly from one controller to another where this is technically feasible.²²⁰ It is worth noting that exercising the right to data portability does not require personal data to also be deleted after the right to portability has been invoked. Rather, these are distinct claims and where the data subject intends deletion, she must, in addition, invoke this Article 17 GDPR.²²¹

The right to data portability was inserted into the GDPR in order to 'empower the data subject and give him/her more control over the personal data concerning him or her'.²²² **Data sovereignty**, the idea that a data subject should be in control of her personal data, is indeed one of the underlying objectives of Europe's new data legislation. It is expected that the option of direct transmission of personal data from one data controller to another will moreover **encourage the free flow of data between Member States** and 'foster

²¹⁸ Article 18(1) GDPR.

²¹⁹ Where the data controller does not or cannot take action following a data subject request, it shall inform the data subject at the latest within one month.

²²⁰ Article 20(2) GDPR.

²²¹ Article 20(3) GDPR.

²²² Article 29 Working Party, 'Guidelines on the Right to Data Portability' (2017) WP 242 16/EN, 3.

competition between controllers’ by facilitating the switching between different service providers and foster the development of new services to strengthen the Digital Single Market.²²³ Indeed, whereas the GDPR has the dual objective of facilitating the free circulation of personal data in the EU and giving data subjects more control over their personal data, the right to data portability is also expected to have the ancillary effect of promoting **competition between data controllers**, and as a corollary also **innovation in the market** as where users can easily switch, providers are incentivised to continuously develop the most attractive product.

There are, however, **a number of limitations to when the qualified right to data portability can be exercised**, one of which has particular relevance in relation to platform business models. The first limitation to the right to data portability is that it applies only where the **processing is based on consent or contract**, and carried out by automated means.²²⁴ Where data processing is anchored in the legitimate interests of undertakings, it cannot be invoked by data subjects. Second, the right to data portability doesn’t apply where processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller or where it would adversely affect the rights and freedoms of others.²²⁵ For our purposes, the most significant limitation is that **the right to data portability applies only in relation to personal data a data subject has ‘provided to a controller’**.

This is significant, as it appears to **exclude online reviews**, which are vital reputational elements of participants in the platform economy. The large majority of sharing economy platforms indeed allows users on both sides of the market to leave reviews. For example, after a stay organised through Airbnb, the platform independently contacts the host and the guest and invites them to leave reviews about each other as well as the property that was rented out. Despite suffering from shortcomings, online reviews are vital components of platform-based business models as they generate trust in the business model and the platform more generally. The right to data portability however only applies where data has been **‘actively and knowingly provided by the data subject’**.²²⁶ When leaving a review, the data subject does not, however, herself provide the personal data (the review about herself is provided by the counterparty to the transaction). As a consequence it appears that **the right to data portability does not apply in relation to platform-mediated reviews**.

This can be considered to be problematic for a number of reasons. It has been seen that one of the objectives underlying this right is to facilitate the switching between different providers. This freedom is expected to **promote innovation in the EU Digital Single Market** as users are encouraged to use the best product rather than the product they have used before due to the **reduction of switching costs**. Indeed, without being able to take online reputational data with them, ‘it is highly unlikely that the seller would attract new buyers in a new platform’.²²⁷

In the sharing economy, a large body of positive reviews can be the user’s main capital. They are **pivotal in generating trust in the respective user as well as the platform and the business model more generally**. Sociology research has long pondered how trust emerges regarding taxi drives, where the lack of prior history and time prevent the

²²³ Article 29 Working Party, ‘Guidelines on the Right to Data Portability’ (2017) WP 242 16/EN, 3.

²²⁴ Article 20 (1) GDPR.

²²⁵ Articles 20(3) and (4) GDPR.

²²⁶ Article 29 Working Party, ‘Guidelines on the Right to Data Portability’ (2017) WP 242 16/EN, 10.

²²⁷ Aysem Vanberg and Mehmet Unver, ‘The Right to Data Portability in the GDPR and EU Competition Law’ (2017) 1 European Journal of Law and Technology 1, 2.

natural construction of interpersonal trust between the driver and passenger.²²⁸ State regulatory intervention typically solves this trust issue through regulation, such as in requiring that drivers undergo background checks and through consumer protection measures and licenses. Regarding online sharing economy platforms, **online reviews** (sometimes referred to as 'peer regulation') **complement State intervention in generating trust.**²²⁹ While it is true that reviews are subject to noticeable limitations, they nonetheless play a crucial function in sharing economy relations.²³⁰

As a consequence, **a user has little incentives to switch platforms unless they can take their reviews with them.** This not only limits individual choice but also **creates strong lock-in effects, meaning that the market risks being dominated by platforms that leverage their first-mover advantage as opposed to those with the best product.** Originally designed to reduce switching costs for individuals, Article 20 GDPR does not achieve that objective in regard of sharing economy platforms considering the limitation that data ought to be provided by the data subject itself to fall within its scope of application.

The above dynamics are due to **the network effects that play a primordial role in the context of digital platforms.** Network effects arise where there is interdependence between (groups of) users.²³¹ The classical example of a network effect is the phone. Whereas the first person to purchase a phone had no use for it (as there was no one else they could call) the value of having a phone increased with each new owner of a phone (as there was a larger number of people to at least potentially speak to). **Network effects are probably the most important economic characteristic of platforms.** To illustrate, whereas the first user of a home sharing platform had no offers to choose from, more users result in a higher choice of homes on offer, making it more likely that the user will find accommodation that matches her preferences. Similarly, those offering accommodation via such a platform benefit from network effects too as there are more potential guests and thus a higher likelihood of income. Further, users on one side of the market can also benefit from each other, as one potential guest will benefit from the reviews of previous guests.

The limitation inherent to Article 20 GDPR might thus turn out to be **a barrier to innovation and thus also the further development of platforms.** Over the past few years, innovators around the globe have been designing new platforms based on similar business models such as those discussed in this study, but which address some of the shortcomings of current models (such as those based on blockchain technology, which we introduce and examine below). If users cannot switch platforms, as they are unable to take their reviews with them, so that artificial barriers to Schumpeter's perennial gale of creative destruction are created.

²²⁸ James Henslin, 'Trust and the Cab Driver' in Marcelo Truzzi (ed), *Sociology and Everyday Life* (Englewood Cliffs 1968) 138; Diego Gambetta and Heather Hamill, *Streetwise: How Taxi Drivers Establish Customer's Trustworthiness* (Russell Sage Foundation 2005).

²²⁹ Through online reviews, only certain aspects can be addressed, however. The passenger may be in a position to accurately determine the friendliness and punctuality of the driver as well as the cleanliness of the vehicle. However, she will in most cases not be able to determine whether the car drives in a manner that is beneficial for overall road safety (and some may indeed prefer that the driver driven in that manner that gets them to their destination in the fastest possible manner rather than in a way that is most suitable from a public safety perspective) and whether the car meets certain security standards.

²³⁰ On limitations, see Kathrin Klette, 'Wie ein Fiktives Edelrestaurant bei Trip Advisor auf Platz 1 landet' *Neue Zürcher Zeitung* (Zürich, 10 December 2017) <<https://www.nzz.ch/panorama/wie-ein-fiktives-edel-restaurant-bei-trip-advisor-auf-platz-1-landet-ld.1337773>> accessed 06 August 2018.

²³¹ Jean-Charles Rochet and Jean Tirole, 'Platform Competition in Two-Sided Markets' (2003) *Journal of the European Economic Association* 990.

It is for this reason that **we recommend that Luxembourg encourages discussion on this topic at European level**. The lack of portability rights in relation to online sharing economy platforms should be taken seriously as it generates effects that can be considered to be undesirable from a macroeconomic perspective. There are a number of options as to how this could be remedied. First, **the GDPR could be reformulated on the occasion of a future revision**. There is, however, reason to question whether the GDPR itself is the adequate framework to design such a principle as it was designed primarily for purposes of individual data protection rather than to further macroeconomic aims. Indeed, the GDPR is targeted not so much to encourage economic competition between operators, but to encourage personal data sovereignty of data subjects.²³² It is for this reason that a second option should be considered in the form of a **sector-specific regime**. To illustrate, the similar to the **Second Payment Services Directive ('PSD2')**. The PSD2 encourages individual's control over their own data in making sure that where the customer consents explicitly, third party providers can access the customer's payment account information directly and use the banks' infrastructure to facilitate provision of payment initiation or account information services.²³³ In addition, technical solutions to the current limitation of portability should also be actively explored and encouraged.²³⁴

Where portability rights apply to online reviews, **the data protection rights of the party that has provided the review must of course also be safeguarded**. This can be difficult where they are ported from one provider to another. While this is not an easy answer it is expected that solutions could be found through **adequate certification regimes** that determine how reviews can be ported while safeguarding such rights, such as through adequate anonymisation techniques. The GDPR indeed encourages the use of certification schemes.²³⁵

POLICY RECOMMENDATION 3: Extending GDPR's provisions on the right to data portability to user reviews in the sharing economy.

The Luxembourg government should take appropriate steps to **evaluate the necessity of an extension of the right to data portability to online reviews** (and other reputational data). This is a policy initiative that should be taken at EU level, in coordination with the other EU Member States. It likely requires legal intervention in the form of a new EU legal framework or the revision of the GDPR. In addition, technical solutions addressing this limitation should be explored.

II. Consumer protection

Mariana Mazzucato has noted that even though it is often said that platforms are a radical transformation in the way goods and services are produced, shared, and delivered, the 'platformitization' of business models can also be an 'easy way for companies to avoid responsibility'.²³⁶ Indeed '[w]hen disabled users complain to Uber that their drivers refuse to put wheelchairs in the trunk, Uber says, well, we're not a taxi company, we're just a

²³² For an elaboration of that argument, see Orla Lynskey 'Aligning Data Protection Rights with Competition Law Remedies? The GDPR Right to Data Portability' (2017) *European Law Review* 793.

²³³ Directive 2015/2366/EU of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market OJ L 337.

²³⁴ See, by way of example, <https://solid.mit.edu/>.

²³⁵ Article 42(1) GDPR calls on Member States, supervisory authorities, the Board and the European Commission to encourage – in particular at EU level – the creation of data protection certification mechanisms and data protection seals and marks allowing data controllers and processors to demonstrate compliance with the GDPR in relation to their processing operations.

²³⁶ Mariana Mazzucato, 'Let's make private data into a public good' (*MIT Technology Review*, 27 June 2018) <<https://www.technologyreview.com/s/611489/lets-make-private-data-into-a-public-good/>> accessed 06 August 2018.

platform. Airbnb is similarly reluctant to take responsibility for the safety of the premises offered on its site, or for racial discrimination against renters by property owners. After all, Airbnb didn't build the apartments and doesn't own them—it's just a platform'.²³⁷

The above statements highlight the difficulty of qualifying sharing economy platforms. **Whereas in the past economic and legal analysis has distinguished primarily between intermediaries and services providers, sharing economy platforms blur these distinctions.** Such platforms often have mixed characteristics of both an intermediary and a service provider.²³⁸ Their **hybrid nature** grounds ongoing debates at national and supranational levels regarding the responsibilities these entities should assume.

One area of particular controversy in this respect has been that of **consumer protection**. On the one hand, **platform-based business models bring a range of advantages for consumers**, including that they offer new business opportunities, wider choice, and lower prices while they can ensure safe transactions and create an infrastructure of trust. On the other hand, however, **platforms also have been shown to constitute threats to consumer protection**. According to a European Commission study on consumer issues on P2P platforms²³⁹, half of the online platform consumers had experienced at least one problem in 2016. It has become apparent over time that they often make use of boilerplate clauses, and architecture their algorithms in a manner that leverages their power over customers and providers.²⁴⁰ Indeed, in July 2018 Airbnb received a warning from the European Commission that its terms and conditions breached the EU's provisions on unfair contractual terms.²⁴¹

It appears that the issue of consumer protection becomes particularly salient as a platform's success increases. Indeed, at first, a platform is nothing without its users. A new platform strongly depends on users on all sides of the market to join. Once this has occurred, however, network effects emerge. **Whereas the platform is at first dependent on its users, with time users become dependent on the platform.** First, through platforms' intermediation, **suppliers lose the direct contact to clients**, which they can only contact and transact with as long as they continue using the platform. Second, the **lack of portability of user reviews**, which was examined in detail above, creates strong incentives for users to remain with the platform and avoid switching. This means that **with greater user lock in, the incentives for platforms to treat these users unfairly increases.** Of course, even beyond there remain dangers to consumer protection in line with what can be observed in the offline economy. For these reasons, it is opportune to enquire into how existing consumer protection principles apply in the sharing economy context.

The traditional rationale for regulatory intervention in bilateral business-to-consumer transactions is to protect the weaker party through consumer law safeguards. This rationale has not disappeared in the face of digitalisation whereas some have argued that **self-regulation** is the most adequate form of consumer protection in

²³⁷ Mariana Mazzucato, 'Let's make private data into a public good' (*MIT Technology Review*, 27 June 2018) <<https://www.technologyreview.com/s/611489/lets-make-private-data-into-a-public-good/>> accessed 06 August 2018.

²³⁸ See further Case 434/15 *Uber Spain* (2017) EU:C:2017:981.

²³⁹ European Commission (DG JUST) Exploratory study of consumer issues on online peer-to-peer platform markets (2017)

²⁴⁰ Guido Smorto, 'Protecting the Weaker Party in the Platform Economy' in Nestor Davidson et al. (eds), *Cambridge Handbook on the Law of the Sharing Economy* (Cambridge University Press 2018) 431.

²⁴¹ <https://www.reuters.com/article/us-eu-airbnb-consumers/airbnb-breaches-eu-consumer-rules-must-fall-into-line-eu-idUSKBN1K613F>.

the age of platforms.²⁴² However, this argument is to be rejected. Indeed, pure forms of self-regulation are incapable of addressing the public policy dimension of consumer protection as platforms are incentivised by self-interest and cannot be expected to account for consumer law's objective of protecting the weaker party. The question to be evaluated is thus how existing consumer law frameworks apply. In the European Union, business-to-consumer transactions are subject to Directive 2005/29/EC on Unfair Commercial Practices; Directive 2011/83/EU on Consumer Rights; Directive 93/13/EEC on Unfair Terms in Consumer Contracts; Directive 2013/11/EU on alternative dispute resolution for consumer disputes and Regulation (EU) No 524/2013 on online dispute resolution for consumer disputes. Below, we provide an overview as to how these requirements match current trading patterns in the sharing economy.

A. The lack of information and legal certainty

The first element to be noted is that there is a lack of information and legal certainty as to which requirements fall on which party in the context of sharing economy transactions. Research carried out by the European Commission has revealed that there is a large degree of uncertainty regarding rights and obligations in the sharing economy.²⁴³ Indeed, users that participate in the sharing economy often report not knowing who is responsible if a problem arises.²⁴⁴ Research confirmed that also in Luxembourg the main barrier to participation in the sharing economy stems from uncertainty regarding responsibility in case of unexpected circumstances.²⁴⁵

This is problematic for two main reasons. First, it prevents users from exercising their rights where problems do in fact arise. Second, it is assumed that this lack of clarity forms a main inhibiting factor for the collaborative economy.²⁴⁶ Further clarifying what the applicable norms are and who responsible is for what and in which circumstances, would thus have the dual benefit of making sure that existing legal obligations are in fact adhered to as well as promoting reliance on sharing economy models. Some of this confusion regarding applicable principles is caused by the fact that the sharing economy blurs the familiar distinction between the trader and the consumer that grounds contemporary consumer law as it has caused the emergence of new actors and new transaction models.

B. The emergence of new actors and new transaction models

Consumer protection law is based on the assumption that there are two easily distinguishable categories of actors: consumers and providers. While providers would be in a more powerful position, consumers are seen as the weaker party to be equipped by State-sanctioned protections in the form of consumer protection legislation to create a level-playing field between these actors. A further assumption enshrined in consumer protection law is that transactions occur on a bilateral basis between a trader and a consumer. It is for this reason that EU consumer legislation only applies to B2C relations.

²⁴² Adam Thierer et al., 'How the Internet, the Sharing Economy, and Reputational Feedback Mechanisms Solve the 'Lemons Problem'' (2016) 70 University of Miami Law Review 830; Christopher Koopman et al., 'The Sharing Economy and Consumer Protection Regulation: The Case for Policy Change' (2015) 8 Journal of Business, Entrepreneurship & the Law 529; Molly Cohen and Arun Sundararajan, 'Self-Regulation and Innovation in the Peer-to-Peer Sharing Economy' (2015) 82 University of Chicago Law Review Dialogue 116.

²⁴³ Commission Staff Working Document on A European Agenda for the Collaborative Economy, COM (2016) 356 final, 4.

²⁴⁴ Commission Staff Working Document on A European Agenda for the Collaborative Economy, COM (2016) 356 final, 5.

²⁴⁵ Fondation IDEA, *Avis Annuel 2017: Monde de Partage ou Partage du Monde ?* (12 April 2017): <http://www.fondation-idea.lu/wp-content/uploads/sites/2/2017/04/Avis-annuel-2017-IDEA-Monde-du-partage-ou-partage-du-monde.pdf>, 45.

²⁴⁶ Commission Staff Working Document on A European Agenda for the Collaborative Economy, COM (2016) 356 final, 5.

The sharing economy blurs these distinctions. On the one hand, transactions involving platforms assume a triangular form as they also involve the platform. On the other hand, the emergence of the 'prosumer' requires a re-evaluation of the familiar distinction between the trader and the consumer. Both are introduced in turn below.

First, where sharing economy transactions are intermediated by a digital platform, they are not based on a bilateral but rather a triangular model, also involving the platform. For these reasons it has been argued that '[t]he relationship between buyers and sellers as we know it is disrupted'.²⁴⁷ European consumer protection law, however, does not account for such triangular scenarios but rather presupposes the existence of a bilateral relationship between a stronger and a weaker party, a typical B2C scenario. The same is true for the Luxembourg *code de la consommation*.

Second, the 'prosumer' is a figure unknown to consumer protection law. Unsurprisingly no mention of prosumers is made in the Luxembourg *code de la consommation*. The notion of 'prosumer' refers to the fact that the same individual can be a provider and a consumer at once.²⁴⁸ In the sharing economy, this implies that someone who normally acts as a consumer (i.e. a person that is not a full-time professional) sometimes also acts as a provider, such as someone who sublets her apartment during the 3 weeks a year where she is away on holiday. What is noteworthy in relation to prosumers is not just that they can be both trader and consumer depending on context, but also that they may be unable to bear the burden of regulatory compliance as they are, in fact, not professionals but peers participating in the sharing economy on an occasional basis.

In the sharing economy, many potential providers only use the opportunities offered by the sharing economy as a means to gain a small amount of earnings on an occasional basis. The European Commission considers that as a consequence 'they may be unable to support the costs associated with full regulatory compliance'.²⁴⁹ This arguably also applies to the obligations set out in the Luxembourg *code de la consommation*.²⁵⁰ This raises the question as to whether legal change is required to accommodate these changes in economic transactions. So far, the EU has left the question it itself asked unanswered.

Bearing these complications in mind, the determination of how the obligations enshrined in consumer protection law should apply to the relevant parties is far from straightforward, as illustrated below. This highlights the need for further clarification of applicable requirements and a monitoring of the developments in this area, potentially resulting in a need for legal reform at European level.

1. Who is a trader?

EU consumer protection law applies only in B2C scenarios, excluding C2C (also referred to as 'peer-to-peer') relations or B2B scenarios. In the sharing economy, however, many transactions do not assume this form as with the proliferation of prosumers these traditional dividing lines have become blurred. As a matter of EU law, a 'trader' is a person 'acting for purposes related to his trade, business, craft or profession'.²⁵¹ Similarly, under **Art. L.010-1 (2) of the Luxembourg code de la consommation** a trader ('*professionnel*') is '*toute personne physique ou morale, qu'elle soit publique ou privée, qui agit, y compris par intermédiaire d'une autre personne agissant en son nom ou pour son*

²⁴⁷ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 13.

²⁴⁸ George Ritzer et al., *The Coming of Age of the Prosumer* 56 (2012) *American Behavioural Scientist* 379.

²⁴⁹ Commission Staff Working Document on A European Agenda for the Collaborative Economy, COM (2016) 356 final, 19

²⁵⁰ See, by way of example, Livre 2 of the Luxembourg code de la consommation.

²⁵¹ Article 2(a) of the Unfair Terms Directive 93/13.

compte, aux fins qui entrent dans le cadre de son activité commerciale, industrielle, artisanale ou libérale'.

It is in this capacity that the trader must comply with a number of legal requirements. This triggers the question of whether platforms, suppliers or consumers qualify as traders.

2. Platforms as traders

Where platforms qualify as traders they must comply with EU consumer protection law in relation to their intermediation service, and potentially also with the underlying service.²⁵² The European Commission considers that a platform 'may be acting for purposes relating to its business, whenever, for example, it charges a commission on the transactions between suppliers and users, provides additional paid services or draws revenues from targeted advertising'.²⁵³ This implies that **more often than not a sharing economy platform qualifies as a trader** as most platforms indeed perform at least some of these services.

The relevant criterion is accordingly **whether a platform provides active intermediation and offers additional services to the parties or whether it merely serves as a forum where users can advertise**. Couchsurfing.com likely falls into the latter category whereas other sharing economy platforms do not. For example, in *Uber Spain*, the ECJ held that in relation to UberPop, Uber does not just provide intermediation services but that it should also be seen to provide the underlying transportation service as it exercises significant control over key parameters, such as driver selection or the definition of the price and contractual terms.²⁵⁴

A platform has **additional obligations outside the scope of consumer protection law**. For example, platforms can in some circumstances be liable for the supplier's conduct on the basis of vicarious liability ('*responsabilité du fait d'autrui*' under Luxembourg law²⁵⁵) where platforms act as intermediaries.²⁵⁶ This would be the case where the platform qualifies as the employer of the person causing the damage. In case the supplier is an independent contractor this could nonetheless be the case where under the 'apparent authority' doctrine where the platform or the supplier manifest an agency relationship that the victim reasonably relied upon.²⁵⁷ Indeed, under **Article VI-3:201 of the Draft Common Frame Reference of European Private Law** vicarious liability applies not only to employees but also 'representatives' that are 'similarly engaged by them'. It appears that this provision can catch ride sharing and home sharing platforms that could thus be held liable for the actions of the suppliers that rely on their platforms.²⁵⁸ The application of that argument in the Luxembourg context is however open to debate considering that **Article 1384 of the Luxembourg Civil Code** speaks of an employment relation.²⁵⁹

Whether a platform qualifies as a trader is thus to be determined on a case-by-case basis. This entails that it can be difficult for platforms as well as users to identify their rights and

²⁵² In *Uber Spain*, the ECJ held that Uber provides not just intermediation services but is also in charge of providing the transportation service itself.

²⁵³ Commission Staff Working Document, 'Guidance on the Implementation/Application of Directive 2005/29/EC on Unfair Commercial Practices' SWD (2016) 163 final, 124.

²⁵⁴ Case 434/15 *Uber Spain* (2017) EU:C:2017:981.

²⁵⁵ See Article 1384 of the Luxembourg Civil Code: 'On est responsable non seulement du dommage que l'on cause par son propre fait, mais encore de celui qui est causé par le fait des personnes dont on doit répondre, ou des choses que l'on a sous sa garde'.

²⁵⁶ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 23.

²⁵⁷ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 23.

²⁵⁸ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 23.

²⁵⁹ Article 1384 (3) of the - Civil Code provides that 'Les maîtres et les commettants, du dommage causé par leurs domestiques et préposés dans les fonctions auxquelles ils les ont employés'.

obligations as a matter of consumer law. Below, we suggest that the Luxembourg government takes the non-regulatory measure of publishing guidance on these matters.

3. Are consumers traders?

In some instances, users of a platform will qualify as 'consumers', able to claim protection under consumer legislation. In others, however, they can qualify as traders. A case-by-case analysis will reveal whether the user of a sharing economy platform is a consumer, entitled to consumer law protections, or not. Indeed, there will be circumstances where this is not the case. Users of workspace collaborative services such as WeWork are unlikely to qualify as consumers as they are likely having recourse to such arrangements in the course of their own trade.²⁶⁰ Additionally, where a freelance graphic designer is sharing an office space with others on a flexible basis, they are not entitled to consumer law protections.

The situation is more delicate in relation to suppliers. Determining whether a supplier, such as an Uber driver or a Homeaway host, is a supplier, is nonetheless crucial as it determines whether they can invoke consumer law protections vis-à-vis the platform and what obligations they have vis-à-vis users they transact with. The European Commission has suggested that thresholds can be a useful proxy to determine whether someone is a trader or a consumer. Account should be taken of:

- (i) the frequency of service delivery (whether services are offered regularly or not);
- (ii) the profit-seeking motive (is the objective cost compensation, the exchange of assets or skills, etc.);
- (iii) the turnover of the concerned activity. If the turnover is higher than that obtained from other activities of the same person.²⁶¹

While these criteria are a useful step in the direction of providing greater clarity, regulator **platform users are unlikely to be aware** of these elements and may simply make guesses in relation to their respective status. What is more, the identified criteria are rather **imprecise**, making it hard for those concerned to determine in which category they fall. **If clearer guidance could be devised, platforms themselves could indicate to their users whether they are a trader or a consumer and what related rights and obligations are.** In this scenario, the platform itself would be acting as actors in the law enforcement process. This is a broader option currently explored in policy debates, which we mention throughout our analysis and examine in further depth in Section 4.

C. Is there a need for legal reform?

Much of the above complications stem from the fact that the tripartite relation that qualifies platform-based sharing economy transactions (platform-supplier-consumer) is one unfamiliar to EU consumer protection law and indeed consumer protection law more generally, as also reflected by the Luxembourg *code de la consommation*. Whereas guidance along the lines of what has been suggested above can provide important relief in this area, there is currently an ongoing discussion in legal scholarship on whether this is enough or **whether legal reform in the form of new supranational legislation is needed**. At national level, **reform could take the shape of that initiated in France** whereby Art.111-7(2)(3) of the *code de la consommation* now provides that *'tout opérateur de plateforme en ligne est tenu de délivrer au consommateur une information loyale, claire et transparente sur (...) La qualité de l'annonceur et les droits et obligations*

²⁶⁰ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 49.

²⁶¹ Commission Staff Working Document 'European Agenda for the Collaborative Economy – Supporting Analysis SWD (2016).

des parties en matière civile et fiscale, lorsque des consommateurs sont mis en relation avec des professionnels ou des non-professionnels’.

At European level, some have considered the need to initiate a ‘Platform Directive’ to account for the identified structural challenges.²⁶² Legal reform along these lines would adjust consumer contract law to account for the changing market structure caused by (sharing economy) platforms.²⁶³ This would account for the triangular nature of many of these transactions and remedy the fact that at present, many transactions are not caught by consumer protection law. In the context of such reform, the spread of the prosumer profile and the involvement of peers in the sharing economy could be further explored. Such reform would, however, lead to a significant overhaul of European and Luxembourg consumer protection law. It is worth noting that under the EU ‘**New Deal for European Consumers**’ proposal, online marketplaces must make clear whether a user interacts with a consumer or a professional and whether, accordingly, they are protected by consumer law.²⁶⁴ Luxembourg could support this idea through the support of the related initiative at EU level.

Summary regarding applicable legislation

There is a **high degree of legal uncertainty** as to whether an actor participating in the sharing economy qualifies as a trader (a ‘professionel’) under the Luxembourg *code de la consommation* or as a consumer under the consumer protection law. In each instance, a case-by-case analysis is needed. However, as a general matter it can be highlighted that:

- a platform qualifies as a trader where it offers active intermediation and additional services;
- users are unlikely to qualify as consumers when they use collaborative economy services in the course of their trade; and
- suppliers can be consumers or traders. In order to determine whether they are a trader, the European Commission considers that three factors ought to be taken into account (i) the frequency of service delivery (whether services are offered regularly or not); (ii) the profit seeking motive and (iii) the turnover of the concerned activity. As these criteria are likely not known to consumers and offer little practical guidance the Luxembourg government should consider publishing them online and provide more practical guidance to their implementation.

POLICY RECOMMENDATION 4: Providing clear guidance to sharing economy providers and consumers as regards platforms’ rights and responsibilities.

In light of the **lack of legal clarity** as to which entity in a triangular sharing economy platform is subject to the obligations arising under Luxembourg consumer protection law, we recommend that the Luxembourg government guides consumers by **making online information available** detailing who the likely responsible entity would be in different scenarios. This will allow parties to better account for existing legal obligations and the increase in legal certainty will enhance trust in sharing economy models. This could be carried out at national level and would not require legislative action. Further,

²⁶² Christoph Busch et al., ‘The Rise of the Platform Economy: A New Challenge for EU Consumer Law?’ (2016) 5 Journal of European Consumer and Market Law 3.

²⁶³ Christoph Busch et al., ‘The Rise of the Platform Economy: A New Challenge for EU Consumer Law?’ (2016) 5 Journal of European Consumer and Market Law 3, 3.

²⁶⁴ See further: http://europa.eu/rapid/press-release_IP-18-3041_en.htm.

guidance offering more concrete criteria to participants in the sharing economy should be considered, as well as **updating legislation** to create specific legally binding criteria.

Alternatively, **platforms could be incentivised to themselves fulfil this role as they have been under French law, and as the EU 'New Deal for Consumers' has suggested.** Where clear guidance is available, platforms could indicate to users whether they act as a trader or consumer under the Luxembourg *code de la consommation* and what related rights and obligations are under EU law. This could be done through legislative reform at national level or in supporting related proposals at EU level. However, considering the prevailing legal uncertainty at this moment in time, informal guidance by Luxembourg authorities should precede this step.

Thus far, the analysis has predominantly focused on the substantive elements of consumer protection law. The emergence of digital platforms doesn't, however, just have implications for substantive law but also for legal enforcement. Indeed, with the emergence of platforms new dispute resolution mechanisms have emerged.

III. Dispute resolution

In the sharing economy, as elsewhere, sometimes things inevitably go wrong. Guests who arrange their accommodation through home sharing platforms will break things, hosts may forget to let the guest in (possibly resulting in the need for additional hotel accommodation for at least one night), drinks get spilled during carpooling and a drill borrowed through a sharing economy arrangement may no longer work once it is returned. Furthermore, disputes may arise considering online reviews that may be challenged as inadequate or defamatory.

All of these incidences may trigger the **need for dispute resolution**. In such instances, sharing economy participants will face the option of choosing between traditional state-sanctioned judicial dispute resolution or alternative – often online – mechanisms. As a matter of fact, many sharing economy platforms provide their own dispute resolution mechanisms to users. Overall, two scenarios can be distinguished in this respect. First, disputes arising between users and the platform, and second, disputes arising between users of the platform.

A. Disputes between users and the platform

Platforms' terms and conditions habitually provide clauses on applicable law and jurisdiction. To illustrate, Airbnb determines that the Irish law applies for EU residents and claims must be brought into Irish courts.²⁶⁵ These choices do not, however, undermine national and supranational consumer law protections. Indeed, where a contract is a consumer contract in line with what was examined in the preceding section then Article 6(2) of the Rome I Regulation applies according to which consumers determine the protection of their national law.

B. Disputes between users of the platform

Where traditional judicial avenues are chosen, questions of applicable law and jurisdiction will often arise. Sometimes, the law applicable to the dispute will be apparent such as where a Luxembourg-based platform is used to coordinate ride sharing between two passengers in Luxembourg. Yet due to the transnational nature of many platforms and sometimes also of related offer and demand, things may be much more complex. Parties

²⁶⁵ <<https://www.airbnb.com/terms>> accessed 16 August 2018.

to a transaction may reside in different jurisdictions as the platform is headquartered in another.²⁶⁶

These difficulties are not, however, unprecedented and can be resolved through **private international law rules**. For example, while platforms' terms and conditions will usually specify choice of law and jurisdiction rules (in case a dispute arises between a user and the platform), **platforms generally don't pre-determine the applicable rules where a dispute arises between peers**. Here, the Rome I Regulation (on applicable law) and the Brussels I Regulation (on jurisdiction) will apply.²⁶⁷ **The determination of whether one party qualifies as a consumer matters, as they then benefit from more favourable rules**. Indeed, in a B2B relation, parties are free to determine jurisdiction (although this doesn't appear to be common in the sharing economy). If not, the default rule is the application of the law of the jurisdiction where the service provider habitually resides.²⁶⁸ Under the Brussels I Regulation's 'special jurisdiction' provision, either party can moreover be sued in the Member State where the services 'were provided or should have been provided'.²⁶⁹

If a consumer contract is in place special provisions apply unless there has been a choice of applicable law and prorogation of justice.²⁷⁰ For this to apply, there must be a contract between (i) a natural person acting for purposes outside their trade or profession (the consumer) and (ii) a person pursuing commercial or professional activities in a Member State of the consumer's domicile or activities directed at that domicile and where the contract falls within the scope of these activities.²⁷¹ In this scenario, the dispute is governed by the laws of the consumer's country of residence and the consumer has the choice to bring the related action before the courts of their own jurisdiction or that of the supplier (even if outside the EU). **This further underlines the importance of making the determination of who is a consumer in sharing economy settings in line with Policy Recommendation 2 (above)**. Indeed, this protective regime does not apply in a peer-to-peer relation as the protective rationale of B2C relations doesn't apply. Here, the relationship falls under the general rules on contracts.²⁷²

Some have more generally questioned whether judicial dispute resolution is appropriate for the present context. Judicial action is costly and burdensome. Often, the cost will not be proportionate to the value of the claim. As a consequence, many consumers are discouraged from bringing claims, effectively allowing platforms, providers, and users to act unlawfully without sanction.²⁷³ An alternative available to parties is that of alternative dispute resolution.

C. Alternative dispute resolution mechanisms

For reasons of efficiency and costs, **platforms are often relying on alternative dispute resolution mechanisms such as arbitration**. To platforms, the major advantage of this system is that it does not set precedent and that the decisions of arbitration proceedings

²⁶⁶ It is worth noting that even in the Uber Spain case, there was some confusion regarding the relevant competence and division of work between Uber, Inc. and its EU-based subsidiary.

²⁶⁷ Regulation 593/2008 of 17 June 2008 on the law applicable to contractual obligations (2008) OJ L 177/6; Regulation 1215/2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (2012) OJ L 351/1.

²⁶⁸ Article 4(b) of the Rome I Regulation. This rule applies irrespective of whether the service provider resides in a EU Member State or not.

²⁶⁹ Article 7 (1) Brussels I Regulation.

²⁷⁰ Article 6 of the Rome I Regulation and Section 4 of the Brussels I Regulation.

²⁷¹ Article 17(1)(c).

²⁷² Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 175. The case law of the ECJ supports a strict interpretation of the notion of 'consumer' in this context. See Case C-96/00 *Gabriel* [2002] EU:C:2002:436.

²⁷³ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 177-78.

cannot be appealed in ordinary courts. Accordingly, it is not surprising that **many platforms incorporate arbitration clauses in their terms and conditions**. To illustrate, TaskRabbit provides that where disputes arise, the first step is pre-arbitration negotiation. If this fails, arbitration proceedings must be chosen over ordinary courts.²⁷⁴

The European Union's Alternative Dispute Resolution Directive governs arbitration in C2B context (but doesn't address B2B, B2C or C2C relations).²⁷⁵ Thus it **doesn't apply to most sharing economy transactions** (B2B or C2C) or where proceedings are initiated by the trader, not the consumer (B2C instead of C2B). A shortcoming of arbitration is that it takes place face-to-face so that people have to travel to have their issue addressed. Platforms often have wide discretion to determine the seat of arbitration, the identity of the arbitrators, the language and rules of arbitration and the division of expenses between parties.²⁷⁶ This allows them to influence the process to their favour. For this reason, the **validity of such clauses is questionable and they may be seen as unfair terms in consumer contracts**.²⁷⁷ Indeed, in accordance with the directive on unfair terms in consumer contracts, terms that have the object or effect of 'excluding or hindering the consumer's right to take legal action or exercise any other legal remedy, particularly by requiring the consumer to take dispenses exclusively to arbitration not covered by legal provisions' may be unfair.²⁷⁸ Under the Brussels I Regulation, derogation from the jurisdiction laid down in consumer contracts before the dispute arises are void.²⁷⁹

As a consequence of the above-identified factors, new online dispute resolution mechanisms have been developed over the past years that may have important consequences for the future of dispute resolution.

D. New online dispute resolution mechanisms

The above overview has underlined that there are complexities and limitations to ordinary judicial proceedings and arbitration mechanisms as a result of the constellation of many sharing economy transactions. For this reason, online dispute resolution is often advanced as a better alternative. Generally, the impact of such mechanisms should not be underestimated. For example, around 60 million disputes per year are processed by Ebay's dispute resolution mechanism alone.²⁸⁰ It is predicted that the online economy will increase the volume and variety of disputes and that **in the next years, there will be a billion disputes relating to e-commerce transactions**.²⁸¹

Online dispute resolution constitutes an **innovation that leverages the speed and efficiency of code-based models**. There are two noteworthy developments in this respect. First, online dispute resolution mechanisms internal to platforms, and second the European Union's own ODR platform. Both mechanisms underline that technology can help enforce consumer rights.²⁸²

²⁷⁴ <<https://www.taskrabbit.com/terms>> accessed 16 August 2018.

²⁷⁵ Directive 2013/11/EU on Alternative Dispute Resolution for Consumer Disputes (2013) OJ L 165/63.

²⁷⁶ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 179.

²⁷⁷ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 180.

²⁷⁸ Directive 93/13, Article 3(3).

²⁷⁹ Article 19.

²⁸⁰ Arthur Pearlstein et al., 'ODR in North America' in Mohamed Wahab et al. (eds), *Online Dispute Resolution: Theory and Practice: a Treatise on Technology and Dispute Resolution* (Eleven International Publishing 2012) 457.

²⁸¹ Ethan Katsh and Orna Rabinovic-Einy, *Digital Justice, Technology and the Internet of Disputes* (Oxford University Press 2017) 46-67.

²⁸² See further Martin Fries, 'Law and Autonomous Systems Series: Smart consumer contracts - The end of civil procedure?' (*Oxford Business Law Blog*, 29 March 2018) <<https://www.law.ox.ac.uk/business-law-blog/blog/2018/03/smart-consumer-contracts-end-civil-procedure>> accessed 10 April 2018.

1. Platform-based dispute resolution

While initially platforms saw and portrayed themselves as pure intermediaries, the growing scale and complexity of transactions contracted through the platform have encouraged many to establish **internal dispute resolution mechanisms**. For example, Airbnb has its own 'Resolution Centre' that deals for requests for refunds as a consequence of complications encountered when using the platform.²⁸³

These approaches can have many benefits. First, they are **quicker and speedier** than the above-mentioned alternatives, even more so where algorithms are used in the first stage of dispute resolution. Moreover, such mechanisms help platforms **build trust** in their business models.²⁸⁴

Yet, there are also shortcomings in this approach. It is indicative of a more general trend in which using normative choices embedded in computer code have come to determine many aspects of our online and offline lives. Computer code is a regulatory tool that expresses the objectives and preferences of its creators. However, these creators are more often than not private actors. For example, digital platforms are 'increasingly undertaking regulatory and police functions, which are traditionally considered a matter of public law'.²⁸⁵ In such settings, **external constraints must exist to make sure that private dispute resolution accounts for public policy objectives**. This raises broader questions regarding the interplay between law and technology that are examined in Section 4.

2. The EU Online Dispute Resolution ('ODR') platform

To account for the increased attractiveness of online dispute resolution, the European Union has passed a Regulation on ODR.²⁸⁶ It obliges platforms to provide a link that is easily accessible to the **European Commission's ODR platform** that deals with disputes between a trader and a consumer.

This is an interesting experiment, but since it only started running in 2016, a comprehensive assessment would be immature. Despite that, it also has its **limitations**, such as its application in B2C relations – only when both the consumer and the trader are based in the EU, excluding sharing economy transactions of a C2C or B2B nature or those where the consumer or trader is based outside of the EU.²⁸⁷ As a consequence, **many sharing economy transactions are excluded from the scope of this mechanism**.

POLICY RECOMMENDATION 5: Monitoring of developments in online dispute resolution.

We recommend that the Luxembourg government **monitor developments in online dispute resolution, particularly where carried out by platforms themselves**, and, if necessary, contribute to the required legal intervention at **EU level**. In the meantime, **information should be provided to consumers** (online), educating them about their rights in relation to such mechanisms (e.g. as consumers they cannot be deprived of their right to explore conventional judicial avenues). This could be done in

²⁸³ <https://www.airbnb.com/help/article/767/what-is-the-resolution-center>.

²⁸⁴ Orly Lobel, 'The Law of the Platform' (2016) 101 Minnesota Law Review 87, 146-56.

²⁸⁵ Luca Belli, Pedro Francisco and Nicolo Zingales, 'Law of the Land or Law of the Platform? Beware of the Privatisation of Regulation and Police' in Luca Belli and Nicolo Zingales (eds), *Platform regulations: how platforms are regulated and how they regulate us* (FGV Direito Rio 2017) 41 (hereafter 'Belli et al., 'Law of the Land or Law of the Platform?').

²⁸⁶ Regulation 524/2013 on online dispute resolution for consumer disputes (2013) OJ L 165/1.

²⁸⁷ The platform can be accessed here: <<https://ec.europa.eu/consumers/odr/main/?event=main.home.show>> accessed 16 August 2018.

the same place where general information about consumer protection law is shared online. This can be realised through the same online information campaigns that we highlighted in Recommendation 4 above and also further below.

IV. The sharing economy and taxation

There are currently no taxation rules at European or national level that specifically target sharing economy transactions. As a consequence, it is necessary to examine the application of existing tax laws to such transactions. In the absence of supranational rules on direct taxation, Member States apply their own schemes whereas the EU's VAT regime applies in regard to indirect taxation.

A. Direct taxation

The absence of a homogeneous sharing economy framework entails that different sharing economy transactions, such as car sharing and home sharing respectively, are subject to **distinct sectoral schemes** as opposed to a homogeneous framework.²⁸⁸ Users might, however, be unaware of such distinctions. As a consequence, the **provision of information could be a helpful factor in clarifying fiscal obligations for users and increasing trust in this economic model**. The Luxembourg government could make related information available, educating users that different principles and tax rates may apply depending on the specific activity that is carried out. Users could thus be informed when personal or corporate income tax, tourist tax, municipality tax, but also license fees and social security contributions apply.

Second, determining the applicable fiscal rate is often further burdened by the **uncertain legal qualification of specific sharing economy activities**. To take the most paradigmatic example, it remains unsettled whether an Uber driver is an independent contractor or an employee of the platform. However, this determination has considerable implications from a fiscal perspective as in the first instance the driver would be subject to VAT, whereas in the second instance that would not be the case.²⁸⁹

According to the *Loi modifiée du 4 décembre 1967 concernant l'impôt sur le revenu*, in **Luxembourg personal income tax is levied on commercial or business profits as well as profits derived from the self-employed professions and the net income of rental property**.²⁹⁰ However, to date there appears to be **no clear guidance** as to when sharing economy activities fall within these categories. Providing such guidance would be an important step towards compliance with fiscal obligations and the promotion of trust in sharing economy business models. Further, if the government would seek to promote reliance on such business models, it could explore the option of providing exemptions up to a certain threshold. The Luxembourg government could **provide further clarity on these matters by informing users about such classification (where possible) and the related fiscal implications**.

B. Indirect taxation

Contrary to direct taxation, indirect taxation is subject to a harmonised supranational regime in the form of the VAT Directive, which has been transposed into Luxembourg law

²⁸⁸ Katerina Pantazatou, 'Taxation of Sharing Economy in the European Union' in Nestor Davidson et al. (eds), *Cambridge Handbook on the Law of the Sharing Economy* (Cambridge University Press 2018) 368, 368.

²⁸⁹ Article 10 of the VAT Directive however only catches economic activity where it is conducted independently with the objective of excluding from its scope employees.

²⁹⁰ *Loi modifiée du 4 décembre 1967 concernant l'impôt sur le revenu*.

by the *Loi du 12 février 1979 concernant la taxe sur la valeur ajoutée* according to which the following transactions are subject to VAT.

Article 2(1) of the VAT Directive

- (a) the supply of goods for consideration within the territory of a Member State by a taxable person acting as such;
- (b) the intra-Community acquisition of goods for consideration within the territory of a Member State by:
 - (i) a taxable person acting as such, or a non-taxable legal person, where the vendor is a taxable person acting as such who is not eligible for the exemption for small enterprises provided for in Articles 282 to 292 and who is not covered by Articles 33 or 36;
 - (ii) in the case of new means of transport, a taxable person, or a non-taxable legal person, whose other acquisitions are not subject to VAT pursuant to Article 3(1), or any other non-taxable person;
 - (iii) in the case of products subject to excise duty, where the excise duty on the intra-Community acquisition is chargeable, pursuant to Directive 92/12/EEC, within the territory of the Member State, a taxable person, or a non-taxable legal person, whose other acquisitions are not subject to VAT pursuant to Article 3(1);
- (c) the supply of services for consideration within the territory of a Member State by a taxable person acting as such;
- (d) the importation of goods.

Where sharing economy transactions are caught by any of these scenarios they become subject to VAT.²⁹¹ To determine the fiscal status of sharing economy transactions under the VAT Directive, two distinct scenarios must be examined: (i) the supply of goods or services by a sharing economy platform user to other users; and (ii) the services provided by the sharing economy platform itself to its users.²⁹² These scenarios must be subject to separate analysis. Indeed, the assessment of services provided by individuals should not affect the consideration of the services provided by the platform and vice versa.²⁹³

C. The supply of goods or services by a sharing economy platform user to other users

To establish whether a platform user is liable to pay VAT it must first be determined whether she qualifies as a taxable person.²⁹⁴ Two scenarios ought to be distinguished in this respect. First, where the supply of goods or services occurs for consideration by one user of a platform to another. Second, where goods or services are made available by one platform user to another in exchange for their goods or services *or* those of others.²⁹⁵

VAT applies where a good or service is provided (i) for consideration; (ii) within the territory of a Member States; (iii) by a taxable person; (iv) acting as such.²⁹⁶ If a good or service is provided for consideration, the transaction is subject to VAT if they

²⁹¹ See also Chapitre I, Section 1 of the *Loi du 12 février 1979 concernant la taxe sur la valeur ajoutée*.

²⁹² Value Added Tax Committee Working Paper No 878, page 2-3.

²⁹³ Value Added Tax Committee Working Paper No 878, page 3.

²⁹⁴ Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax (OJ L 347, 11.12.2006).

²⁹⁵ Value Added Tax Committee Working Paper No 878, page 3.

²⁹⁶ See further Article 2(1)(a) and (c) of the VAT Directive.

are made by a **taxable person** – a term that is defined widely to encompass any activity of producers, traders or persons supplying services are economic activity.²⁹⁷

It goes without saying that a **case-by-case analysis** is needed to determine tax liability in each specific case. That said, it can be assumed that, generally speaking, joining a sharing economy platform (where goods or services are provided in return for remuneration) implies some continuity so that related activities qualify as 'economic activity'.²⁹⁸ Article 12 of the VAT Directive moreover allows Member States to consider anyone providing economic services on an **occasional basis** to be subject to the VAT Directive.²⁹⁹ **In most instances, the supply of goods or services through a sharing economy platform hence qualifies as 'economic activity' under the VAT Directive.**³⁰⁰

This leaves us with the question of whether the user is '**acting as such**' where she carries out transactions in the course of their taxable activity. **In Luxembourg law, the challenge lies in the interpretation of 'un assujetti dans le cadre de son entreprise' under Article 2(a) of the Luxembourg VAT law. Purely private transactions are not subject to VAT.** The European Court of Justice, however, considers that a taxable person active in one field of activity that also occasionally carries out a transaction in another field is liable to pay VAT on that transaction, if it falls within the scope of the VAT Directive.³⁰¹ This implies that **people habitually employed in one sector but nonetheless active in the sharing economy on an occasional basis are subject to pay VAT on related transactions.** Member States remain free to determine the definition of income and the taxable person, applicable rates, modalities of tax collection, exemptions, allowances and deductions as well as the definition of *de minimis* standards. These are tools that could be explored by the Luxembourg government should it desire to promote certain sharing economy activities.

It is worth recalling the importance of legal qualification mentioned above. Indeed, **where suppliers qualify as employees**, the VAT Directive, which only catches economic activity where it is conducted independently, does not apply.³⁰² **This is an additional argument supporting our claim that further legal certainty is required in relation to platform-based work.**

D. Goods or services made available by one user of a platform to another in exchange for their goods or services or those of others

The second scenario emerges where goods or services are swapped for other goods or services. This can occur in two distinct constellations.

First, the good or service may be swapped by one user in exchange for a good or service provided by that same counterparty. An example of this would be **home swapping**, a practice whereby two parties can trade their homes for a limited period of time, such as

²⁹⁷ Joined Cases C-354/03, C-355/03 and C-484/03 *Optigen Ltd, Fulcrum Electronics Ltd, Bond House Systems Ltd v Commission* [2006] EU:C:2006:16, para 43; Case 235/85 *Commission v Netherlands* [1987] EU:C:1987:161, para 8.

²⁹⁸ Value Added Tax Committee Working Paper No 878, page 6.

²⁹⁹ See also Case C-62/12 *Kostov* [2013] EU:C:2013:391; Cases C-180/10 and C-181/10 *Slaby and others* [2011] EU:C:2011:589.

³⁰⁰ Value Added Tax Committee Working Paper No 878, page 6.

³⁰¹ Case C-62/12 *Kostov* [2013] EU:C:2013:391.

³⁰² Article 10 of the VAT Directive.

for holidays.³⁰³ Such transactions are **subject to VAT** where they are made for consideration by a taxable person acting as such.³⁰⁴

Second, the good or service may be swapped by one user in exchange for a good or service provided by a third party. In this scenario, an individual supplies goods or services to a **common pool** and can in turn benefit from other goods or services from the pool. An example of this form of the sharing economy is Streetbank, a platform that allows users to share all sorts of objects with their neighbours.³⁰⁵ This is a more difficult example from a VAT perspective as it is **unclear whether individuals supplying goods or services are actually taxable persons and whether there is a direct link between the service that is provided and the remuneration.**³⁰⁶

Under the VAT Directive, the exploitation of tangible or intangible property constitutes economic activity where it is conducted to obtain income on a continuing basis.³⁰⁷ It is, however, **not clear whether swaps constitute income** under the VAT Directive.³⁰⁸ Thus it is **much less certain whether such transactions are subject to VAT.** This is confirmed by the fact that it remains uncertain whether there is consideration in the absence of a direct link between the goods and services that are supplied and consideration received.³⁰⁹ **This is a point that should be further clarified through additional guidance at EU level.**

E. The fiscal obligations of sharing economy platforms

The fiscal obligations of platforms themselves are, generally speaking, more straightforward to determine than those of their uses. **Where platforms provide services free of charge, they are outside the scope of application of the VAT Directive.**³¹⁰ **Where consideration occurs, VAT applies.**³¹¹

Whether these principles are currently being efficiently enforced is a different question. Research has revealed that some platforms channel their profits through jurisdictions with low corporate income taxes while transferring their losses to high corporate income tax countries.³¹² Not only direct taxation, also indirect taxation is being impacted by the rise of digital business models. Indeed, there is an ongoing debate that questions how VAT can be adapted to the digital economy.³¹³

In this context, the **EU's proposal for a fair taxation of the digital economy** is relevant. The proposed rules focus on the fact that in the digital economy, value is created from a combination of knowledge, sales functions, algorithms and user data whereas tax

³⁰³ Examples include <https://www.lovehomeswap.com/>; www.homeforexchange.com/.

³⁰⁴ Value Added Tax Committee Working Paper No 878, page 8.

³⁰⁵ <https://www.streetbank.com/splash?locale=en>

³⁰⁶ Value Added Tax Committee Working Paper No 878, page 8.

³⁰⁷ Article 9(1) of the VAT Directive.

³⁰⁸ Value Added Tax Committee Working Paper No 878, page 8.

³⁰⁹ C-154/80 *Coöperatieve Aardappelen*, paragraph 12; and CJEU, judgment of 23 November 1988 in case C-230/87 *Naturally Yours*, paragraph 11.

³¹⁰ Value Added Tax Committee Working Paper No 878, page 10.

³¹¹ Value Added Tax Committee Working Paper No 878, page 10.

³¹² Katerina Pantazatou, *Taxation of Sharing Economy in the European Union*, in Nestor Davidson et al, *Cambridge Handbook on the Law of the Sharing Economy* (Cambridge University Press 2018) 368, 370. See also Parliamentary question *Tax Optimisation by Airbnb in Europe*, European Parliament (Dec. 18, 2015), www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2015-016006&language=EN

³¹³ *Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on an Action Plan on VAT, Towards a single EU VAT Area – Time to Decide*, European Commission, COM(2016) 148, https://ec.europa.eu/taxation_customs/sites/taxation/files/com_2016_148_en.pdf; *Modernising VAT for Cross-Border B2C E-Commerce*, European Commission, COM(2016) 757 final, https://ec.europa.eu/taxation_customs/sites/taxation/files/com_2016_757_en.pdf.

is only levied in one of the many places where value is created.³¹⁴ As a result, the Commission has proposed that as a long-term solution, new fiscal principles to reform corporate tax rules be devised so that profits are registered and taxed where businesses have significant interaction with users through digital channels.³¹⁵ This would allow Member States to tax profits generated in their territory even if a company doesn't have its physical presence there. Subject to corporate tax would be profits from user data (such as the placement of advertising), services connecting users (including sharing economy platforms), and other digital services such as subscriptions to streaming services.

The proposed legislation considers that there is a 'digital presence' of a platform in a Member State if one of three criteria are met: (i) the platform exceeds threshold of €7 million in a Member State; (ii) it has more than 100,000 users in a Member State in a taxable year; (iii) over 3000 business contracts for digital services are created between the company and business users in a taxable year. It is, however at least at this stage, **unlikely that any of these thresholds will be met by sharing economy platforms in the Grand Duchy.**

The second proposal of making tax law fit for the digital economy currently debated at EU level relates to the **creation of an interim tax on certain revenues from digital activities.** Here, the objective is to make sure that activities that are currently not effectively taxed begin to generate immediate revenues for Member States and prevent fragmentation. This tax, which would only serve as an interim measure until the above regime is adopted would also apply to revenues created by digital intermediary activities.³¹⁶ Under this model, tax revenue is collected by the Member States where users are located and would only apply to companies with annual worldwide revenues of €750 million and EU revenues of €50 million in order to prevent overburdening start-ups and scale-up businesses.³¹⁷

F. The lack of knowledge and information

The above analysis has revealed that the prevailing problem concerning taxation in the sharing economy appears to be the lack of information, both for fiscal authorities and the various participants in sharing transactions. This generates undesirable effects.

First, **the lack of relevant knowledge and information can burden compliance with existing fiscal obligations.** According to the European Commission, an important challenge for ride sharing in the EU is 'the variety of VAT rules and a lack of clarity around the legal status of the money collected by drivers via platforms'.³¹⁸ This fragmentation forms a hindrance for economic operators, especially for those of small or medium size such as start-ups. Furthermore, it may be difficult for individual actors to find relevant information online, especially in a small State such as Luxembourg. Two readily available remedies to this prevailing uncertainty and fragmentation can be identified. On the one hand, the government itself may decide to **make available information about fiscal compliance in the sharing economy online**, which would facilitate fiscal compliance for providers and users. As an alternative, the government could **compel platforms to fulfil this role.** To illustrate, **in France** collaborative platforms have to communicate to each individual an annual summary of their tax situation, mentioning how and how much they have to declare to the tax authorities.³¹⁹ **In Estonia**, fiscal authorities have entered

³¹⁴ https://ec.europa.eu/taxation_customs/business/company-tax/fair-taxation-digital-economy_en

³¹⁵ https://ec.europa.eu/taxation_customs/business/company-tax/fair-taxation-digital-economy_en

³¹⁶ https://ec.europa.eu/taxation_customs/business/company-tax/fair-taxation-digital-economy_en

³¹⁷ https://ec.europa.eu/taxation_customs/business/company-tax/fair-taxation-digital-economy_en

³¹⁸ Commission Staff Working Document on A European Agenda for the Collaborative Economy, COM (2016) 356 final, 21.

³¹⁹ A European Agenda for the Collaborative Economy, *supra* note 20, at 43.

in a partnership with Uber and Taxify for drivers' income tax declaration.³²⁰ Both solutions have the potential to increase fiscal compliance, while the latter promises to be more effective as it reaches all participants.

Second, tax law experts consider that '[t]he most common problem identified with regard to the sharing economy is the **facilitation of tax evasion because of the lack of visibility of the business activity**'.³²¹ While the existing legal framework on access and exchange of tax information is continuously updated to include more and more reporting persons and data to be reported, 'it still does not apply to sharing economy participants in intra- or inter-Member State situations'.³²² This is a **point to be addressed at supranational level** to provide greater certainty in this respect. Again, **the involvement of platforms themselves to collect tax could be an option**, as it is already practiced in numerous European cities as regards tourist tax.

Third, the European Commission has stressed that **EU tax law generally doesn't differentiate between cost-sharing ventures** (such as ShareYourMeal or BlaBlaCar) **and commercial enterprises**.³²³ This in turn triggers a fragmented approach throughout Europe. The Netherlands have for instance chosen to treat ShareYourMeal's (a platform that enables people to share their cooking with others)³²⁴ activity as non-profit making whereas the Belgian tax authority proposed that VAT should be charged to food sharing services and that home cooks should be subject to income tax.³²⁵ **If the Luxembourg government wishes to encourage cost-sharing**, such as in encouraging greater car sharing (e.g. through the design of a Luxembourg-specific app that spontaneously matches drivers and riders), it could choose to adopt the former approach to make this more attractive, to the extent that such schemes are compatible with the EU State aid provisions.

Indeed, taxation has always been a mechanism to implement policy choices. **Numerous other Member States have used tax measures to encourage specific forms of sharing**. For example, the **United Kingdom** seeks to encourage a more efficient use of available housing through its **rent-a-room scheme**. This allows landlords to earn up to a threshold of GBP 7,500 per year tax-free when they let out furnished accommodation.³²⁶ Such measures stimulate the use of excess capacity and at the same time addresses housing shortage and would thus also be appealing in the Luxembourg context. Whereas such measures can be helpful in **stimulating genuine sharing that uses excess capacity more efficiently**, there is also a danger that such measures contravene the **prohibition of allocating State aid** in Article 107 TFEU. Where sharing economy platforms don't have to comply with certain regulatory requirements, such as the allocation of licenses or paying social security contributions for 'their' drivers, this may constitute State aid under Article 107 TFEU.³²⁷ A careful case-by-case analysis is thus required.

³²⁰ <https://www.reuters.com/article/us-estonia-uber/embracing-uber-estonia-shows-tax-neednt-be-an-issue-idUSKCN0YV1PS>

³²¹ Katerina Pantazatou, Taxation of Sharing Economy in the European Union, in Nestor Davidson et al., Cambridge Handbook on the Law of the Sharing Economy (Cambridge University Press 2018) 368, 371. See further Dir. 2011/16/EU as amended by Dir. 2014/107/EU; Dir. 2015/849; Dir. (EU) 2016/881.

³²² Katerina Pantazatou, Taxation of Sharing Economy in the European Union, in Nestor Davidson et al., Cambridge Handbook on the Law of the Sharing Economy (Cambridge University Press 2018) 368, 371. See further Dir. 2011/16/EU as amended by Dir. 2014/107/EU; Dir. 2015/849; Dir. (EU) 2016/881.

³²³ Commission Staff Working Document on A European Agenda for the Collaborative Economy, COM (2016) 356 final, 23.

³²⁴ <https://www.thuisafgehaald.nl/#>.

³²⁵ Commission Staff Working Document on A European Agenda for the Collaborative Economy, COM (2016) 356 final, 23-24.

³²⁶ <https://www.gov.uk/rent-room-in-your-home/the-rent-a-room-scheme>

³²⁷ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 13.

The emergence of platform-based business models has also inspired numerous Member States to **modernise the tax apparatus**. **Estonia** legalised ride sharing services like Uber and introduced new tax arrangements. In collaboration with Uber and Taxify, the Estonian government designed an opt-in system whereby Uber can send drivers' income data directly to the tax authorities so that it is automatically added to their tax return.^{328,329} The **use of technology in ensuring regulatory compliance** in the platform-based economy is further explored in Section 4 below. It is worth noting that many other public authorities are embracing a similar approach. Airbnb automatically collects tourist tax in 23,000 different towns in **France**.³³⁰ In **Amsterdam**, Airbnb collects and remits tourist tax on behalf of hosts.³³¹ Similar arrangements have been designed in some cities in **Portugal**³³², **Spain**,³³³ and **Italy**.³³⁴

Summary regarding applicable legislation

In relation to direct taxation, there is currently much uncertainty when participation in the sharing economy falls within the scope of application of the *Loi modifiée du 4 décembre 1967 concernant l'impôt sur le revenu*.

As regards VAT, similar uncertainty prevails in regards of the *Loi du 12 février 1979 concernant la taxe sur la valeur ajoutée*. Here, the key question to be resolved is whether a sharing economy participant qualifies as a taxable person acting as such (**'un assujetti dans le cadre de son entreprise'** under **Article 2(a) of the Luxembourg VAT law**). This should be clarified as soon as possible in order to create legal certainty and enable compliance.

POLICY RECOMMENDATION 6: Improving information and compliance to tax obligations in relation to the sharing economy.

In order to increase legal certainty and trust in the sharing economy, citizens need **further information** concerning their respective fiscal obligations and applicable tax rates, particularly under the *Loi du 12 février 1979 concernant la taxe sur la valeur ajoutée*. This information can be provided at national level and does not involve legislative intervention. Related information can either be published by the relevant public authorities or platforms could be incentivised to inform users about their respective fiscal obligations.

Where there remains **uncertainty as regards legal qualification**, such as whether swaps are subject to VAT, the Luxembourg authorities should issue missing guidance on how VAT law applies to their interactions. Ideally, this would be done at EU level to avoid internal market fragmentation, but Luxembourg could also choose to start by clarifying these issues in relation to the *Loi du 12 février 1979 concernant la taxe sur la valeur ajoutée*.

³²⁸ <https://www.reuters.com/article/us-estonia-uber/embracing-uber-estonia-shows-tax-neednt-be-an-issue-idUSKCN0YV1PS>

³²⁹ <https://bnn-news.com/taxify-and-uber-drivers-in-estonia-declare-450-000-euros-of-income-166183>

³³⁰ <https://www.airbnb-citizen.com/airbnb-to-collect-automatically-tourist-tax-in-23000-towns-in-france/>

³³¹ <https://www.airbnb-citizen.com/airbnb-and-amsterdam/>

³³² <https://www.airbnb.co.uk/help/article/2290/occupancy-tax-collection-and-remittance-by-airbnb-in-portugal>

³³³ <https://www.airbnb-citizen.com/airbnb-ready-to-collect-the-tourist-tax-in-spain/>

³³⁴ <https://www.airbnb-citizen.com/the-municipality-of-milan-and-airbnb-reach-an-agreement-on-tourist-tax/>

Further, the current position that **cost-sharing ventures** should be subject to the same fiscal treatment as commercial projects may be a factor hindering the development of sustainable sharing solutions.

Further, Luxembourg could explore **fiscal relief measures to promote instances of genuine sharing**, where underused excess capacity, for instance in the accommodation sector, is concerned. European State aid rules must however be accounted for in the design of such measures. Particularly, Luxembourg could qualify cost-sharing ventures (such as carpooling) to not constitute profit-making from a VAT perspective.

In addition, the use of **technological means to ensure fiscal compliance** in the sharing economy, in line with the Estonian model, should be explored.

V. The sharing economy and the traditional economy

A. Impacts on the traditional economy

The sharing economy is a new sector which does not benefit yet from its own regulatory framework. Sharing economy providers enter markets traditionally dominated by established actors (e.g. the hospitality industry, taxis) obeying to professional regulations, without having to comply with the same rules (e.g. health and safety regulations, authorisations and licenses). For this reason, the sharing economy has generated important controversies, notably about unfair competition with conventional businesses (e.g. hotels in Berlin and Barcelona protest against short-term rental platforms, taxi drivers in Paris or London against Uber). A key question here is therefore to what extent sharing economy platforms and service providers can be subject to market access requirements, i.e. business authorisations, licensing obligations, or minimum quality standard requirements (e.g. the size of rooms or the type of cars, insurance or deposit obligations, etc.), as professional providers. Market access requirements are conditions imposed on providers or platforms to operate in the market, and the European Commission identifies this feature as one of the key issues raised by the introduction of sharing economy services in national and local markets.³³⁵ A European Commission study on the business and regulatory environment affecting the sharing economy finds that public authorities tend to impose lighter regulatory constraints on sharing economy than on traditional operators, either as a result of a policy to encourage sharing economy services, or (and most often) because no regulation has been devised yet.³³⁶

At the same time, some public authorities keep the same standards for sharing and traditional economic operators for reasons of consumer protection, prevention of/protection from market failures and a level-playing field demanded by traditional sectors. The ride sharing platform BlaBlaCar, for instance, was fined by Spanish authorities for not adhering to market access requirements applicable to the traditional transport operators such as bus companies.³³⁷ Several EU countries³³⁸ have banned some Uber services, especially the UberPop one, where peers could offer rides. This is also the approach chosen by Luxembourg as regards Uber, as illustrated by the Minister of

³³⁵ Commission Staff Working Document on A European Agenda for the Collaborative Economy, COM (2016) 356 final, 27.

³³⁶ European Commission (DG GROW) *Study to monitor the business and regulatory environment affecting the collaborative economy in the EU-28* (2018).

³³⁷ "BlaBlaCar afronta en Madrid su primera sanción en Europa." *El País* (17 October 2017).

³³⁸ Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, the Netherlands, Portugal, Spain and Sweden. Source: European Commission (DG GROW) *Study to monitor the business and regulatory environment affecting the collaborative economy in the EU-28* (2018).

Sustainable Development François Bausch's position of welcoming the platform provided it complies with the country's legislation for taxis and private hire vehicles.³³⁹

Under EU law, market access requirements need to be justified and proportionate, while not favouring one business model over the other. As emphasised by the European Commission Communication³⁴⁰, it is important to adapt the relevant regulations to the specificities of the sharing economy, as opposed to the traditional sector. Sharing economy providers often offer services of a smaller size/extent and on a less frequent basis than their traditional economy competitors. Demary and Engels advise notably that market access requirements should be kept to a minimum, following two main purposes: first, ensuring a level playing field between collaborative and traditional businesses; and second, guaranteeing a sound level of consumer protection.³⁴¹ Following this approach, a number of EU countries have set lower market access requirements for platforms and providers in a number of sectors. For instance, almost none of the EU countries (including Luxembourg) asks individuals for specific authorisations or specific licenses prior to offering their cars on a car sharing platform.³⁴² In a couple of countries, for example in France or Belgium, it is cheaper and requires less information for crowdfunding platforms to obtain an authorisation to operate from the financial authority than banks or investment firms, which has been found to significantly facilitate their access to the financial market.³⁴³

However, and as noted by the interviewees for this study³⁴⁴, it is important that platforms and providers abide by the regulations aiming at guaranteeing the quality of the service and sufficient level of consumer protection. This includes health and safety requirements, as well as minimum information requirements for platforms and providers while starting and operating their business.

POLICY RECOMMENDATION 7: Setting market access requirements proportionate to the size and risks generated by the sharing economy.

Market access requirements for collaborative economy providers should be proportionate to the size and risks generated by the sharing economy activity in order not to unduly restrict its development. Because of these specificities of collaborative economy business models, some regulations applying to the traditional economy aimed at guaranteeing fair prices, quality of the service, personal safety, or fight against information asymmetry, can therefore be adapted. However, there should be no exemption when the risks for consumers are equal in the sharing economy and the traditional sector, for instance, minimum health and safety and information requirements.

B. Hybridisation of sharing economy platforms

As mentioned in the introduction and in Chapter 2 (D), online platforms tend to diversify their service offer as they grow, from simple intermediation to more features aimed at facilitating the matching of supply and demand (e.g. trust building tools, payment services, insurance and refund policies, etc.). This in turn leads to an increased convergence of business models between some sharing economy platforms and the conventional online

³³⁹ Gael Padiou, « Uber au Luxembourg, mais sous conditions » *L'essentiel.lu* (10 November 2016).

³⁴⁰ European Commission (2016). A European Agenda for the collaborative economy. COM(2016) 356 final.

³⁴¹ Vera Demary, Barbara Engels "Collaborative Business Models and Efficiency." *Potential Efficiency Gains in the European Union* (2016) 28.

³⁴² European Commission (DG GROW) *Study to monitor the business and regulatory environment affecting the collaborative economy in the EU-28* (2018).

³⁴³ European Commission (DG GROW) *Study to monitor the business and regulatory environment affecting the collaborative economy in the EU-28* (2018).

³⁴⁴ Interview with HORESCA, 07/09/2018; Interview with the FDA, 09/10/2018.

sector. This raises the question of whether certain platforms that have started as part of the sharing economy, still belong to it (e.g. Uber and Airbnb as the most obvious examples). Because of the rapid evolution of the sector, and the fast development of platforms, it may be better not to regulate “online” or “sharing economy” platforms but rather the types of transaction they support (see Chapter 1), and the implications they have for consumers and providers. Such differentiation would allow not only to balance the different requirements for platforms and providers (see previous section) but also to tailor potential support policies to the specific needs of those platform initiatives with the most positive impacts (see Chapter 4).

C. Focus on the accommodation sector

The accommodation sector is one of those in relation to which the emergence and impact of the sharing economy has been most discussed. In particular, the effect of platforms such as Airbnb on housing markets has been subject to vivid debate. By now, research has however shown that any generalised discussion regarding the effects of such business models is misguided as **the effect of home sharing platforms on local housing markets is highly context-specific**.³⁴⁵ There are indeed growing indications that home sharing platforms have the potential to negatively impact on local housing markets but the existence and specific contours of these effects vary not only on a city-by-city but also a neighbourhood-by-neighbourhood basis.³⁴⁶ As a consequence, the externalities produced by home sharing models vary on the specific area, making it hard to determine overall policy approaches.

1. The sharing economy and the Luxembourg accommodation sector

The accommodation sector has been subject to **important growth** over the past years. As mentioned in the introduction, Airbnb listings have increased by 30% between 2017 and 2018, from 690 to 906³⁴⁷ and Airbnb facilitated 36,000 stays in the country for a total of between 60,000 and 250,000 overnights³⁴⁸. Depending on the estimate, there were between 710³⁴⁹ and 790³⁵⁰ houseowners or “rental contacts” on Airbnb over the past year. These houseowners can have multiple listings on the website, although there is no official data to support this statement. The offer is quite evenly divided between entire houses and private rooms (445 entire houses, 440 private rooms, 21 shared rooms).³⁵¹ The number of entire houses as well as high occupancy rates are usually indicators for professional room renting, but there is no data on the latter in Luxembourg.

As previously stated, the rapid growth of short-term rentals can represent an **opportunity** for tourism and complement the hotel supply by offering alternative accommodation solutions, cheaper and in other areas. However it can also have **negative implications**, first by shifting away housing from a residential purpose and in turn increasing housing scarcity, and second by threatening revenues and employment in the traditional hospitality

³⁴⁵ Peter Coles et al., ‘Airbnb Usage Across New York City Neighborhoods: Geographic Patterns and Regulatory Implications’ in Nestor Davidson et al., Cambridge Handbook on the Law of the Sharing Economy (Cambridge University Press 2018).

³⁴⁶ Kyle Barron et al., The Sharing Economy and Housing Affordability: Evidence from Airbnb (28 March 2018) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3006832, Mariona Segu, Do short-Term Platforms Affect Rents? Evidence from Airbnb in Barcelona <https://mpra.ub.uni-muenchen.de/84369/>, Peter Coles et al., ‘Airbnb Usage Across New York City Neighborhoods: Geographic Patterns and Regulatory Implications’ in Nestor Davidson et al., Cambridge Handbook on the Law of the Sharing Economy (Cambridge University Press 2018).

³⁴⁷ Interview with Fondation IDEA and the Chamber of Commerce, 20/09/2018.

³⁴⁸ Luxemburger Wort, Exklusiv: 710 AirBnB-Gastgeber in Luxemburg (1 August 2018). Available at: <https://www.wort.lu/de/politik/exklusiv-710-airbnb-gastgeber-in-luxemburg-5b617d36182b657ad3b90cba>.

³⁴⁹ Luxemburger Wort, Exklusiv: 710 AirBnB-Gastgeber in Luxemburg (1 August 2018). Available at: <https://www.wort.lu/de/politik/exklusiv-710-airbnb-gastgeber-in-luxemburg-5b617d36182b657ad3b90cba>.

³⁵⁰ Interview with HORESCA, 07/09/2018.

³⁵¹ According to calculations from Fondation IDEA. Interview with Fondation IDEA and the Chamber of Commerce, 20/09/2018.

industry. Short-term rental platforms have been found to aggravate housing shortage in cities by taking away residential housing and in turn increasing housing prices.³⁵² This element is to be taken into account in Luxembourg, where housing prices have increased by 4.9% between 2016 and 2017.³⁵³ HORESCA warns about the potential damaging effect of short-term rentals on residential housing supply when they consist in a professional activity.³⁵⁴

Furthermore, short-term rentals platforms are deemed to represent unfair competition with the hotel industry, as providers must comply with fewer rules regarding safety, security, compliance with tax laws, etc., than hospitality professionals, which reflects on lower costs for them and therefore cheaper prices. According to HORESCA, the Luxembourg hotel industry has suffered from the growth of short-term rental platforms, especially smaller hotels attracting budget travellers.³⁵⁵ It is therefore important that requirements are adapted to the nature of the activity, whether casual or professional, and that regulations differentiate between home sharing and room-rental with a profit-making purpose.

2. *Sharing in the accommodation sector and regulation*

Regulation can – to some degree – affect the development of such markets. Across the EU, public authorities have indeed used regulation to influence the development of home sharing practices. **A case currently pending before the European Court of Justice** will determine to what extent Member States may impose such measures, which limit Airbnb's and other platforms' freedom to provide services within the EU.³⁵⁶ The Luxembourg government may want to await the decision in that case before proceeding to implement similar measures as it otherwise risks having to reconsider its approach in the aftermath of that judgment.

Many have also been critical of home sharing platforms since they can facilitate the circumvention of local regulations on short-term housing, zoning, private transportation, local taxes, and labour law.³⁵⁷ In some cases, no genuine sharing is involved and the properties marketed through such platforms are owned by professionals with multiple listings so that properties listed on these platforms are effectively taken off the conventional housing market.³⁵⁸ Below, we offer a suggestion as to how this may be counteracted in Luxembourg through a combination of time limits and registration requirements to incentivise sustainable sharing practices, before it is worthwhile considering how other jurisdictions are seeking to foster sustainable home sharing.

Regulation in other jurisdictions

Sustainable sharing practices emerge where available but underused space is used more efficiently. Various jurisdictions have used a range of incentivising measures to **influence the development of sharing in the accommodation sector**. For example, some jurisdictions have excluded **pure home swapping** which occurs without remuneration

³⁵² European Commission (DG GROW) *Study on regulations affecting the collaborative short-term accommodation in the EU* (2018).

³⁵³ <https://statistiques.public.lu/catalogue-publications/logement-en-chiffres/2018/PDF-Logement-7.pdf>.

³⁵⁴ Interview with HORESCA, 07/09/2018.

³⁵⁵ Interview with HORESCA, 07/09/2018.

³⁵⁶ See Case C-390/18 – Airbnb Ireland (pending).

³⁵⁷ Benjamin Means & Joseph Seiner, *Navigating the Uber Economy* (2016) 49 U.C. Davis Law Review 1511.

³⁵⁸ Report of the Office of New York State Attorney General Eric T. Schneiderman, *Airbnb in the City*, <http://www.ag.ny.gov/pdfs/Airbnb%20report.pdf> (accessed 4 July 2018) and UK House of Commons, *Supplementary Written Evidence from the British Hospitality Association*, 1, <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/business-innovation-and-skills-committee/the-digital-economy/written/26821.html> (accessed 4 July 2018).

from sector-specific regulations in the accommodation sector.³⁵⁹ Further, in **France, Italy and the United Kingdom** home swaps are not regulated under tourism legislation.³⁶⁰ No authorisation is required for short-term lettings of residential premises in **Greater London** if the overall duration does not exceed 90 nights per calendar year and the host pays council tax (a local tax) on the received income.³⁶¹ Such measures can **stimulate home sharing and advance the more efficient use of underutilised assets**. Especially where conditions such as time limits are attached to authorisation policies, negative public policy effects such as increases in price and rent can be prevented. Some cities, such as **Barcelona** are using licensing requirements and tax measures to disincentivise residents from subletting their housing through online platforms to prevent the city centre's transformation into a tourist ghetto.³⁶²

The **United Kingdom** decided in 2015 that existing regulations from 1973 limiting the use of residential premises were difficult to enforce and updated them 'to boost the sharing economy'.³⁶³ The 2015 Deregulation Act allows residential accommodation to be sublet for a maximum of 90 nights per calendar year without this amounting to an unlawful 'change of use'.³⁶⁴ In **France**, the national legislature enacted the 2014 *Loi Allur*, which allows owners to let their principal residence up to four months with no need for any formalities other than taxing the revenues.³⁶⁵ There are henceforth two formulas, respectively enshrined in Art. L324-1-1 I. and Art. L324-1-1 II. of the *Code du tourisme*. Under Art. L324-1-1 I the owner of a *meublé de tourisme* must notify the relevant municipality of this unless the relevant property is the main residence, when no such notification is required.³⁶⁶ Under Art. L324-1-1 II some municipalities have the option to adopt stricter

³⁵⁹ Commission Staff Working Document on A European Agenda for the Collaborative Economy, COM (2016) 356 final, 31.

³⁶⁰ Commission Staff Working Document on A European Agenda for the Collaborative Economy, COM (2016) 356 final, 31.

³⁶¹ Section 44 of Deregulation Act 2015 c.20.

³⁶² Feargus O'Sullivan, Barcelona Finds a Way to Control its Airbnb Market, CityLab (6 June 2018) <https://www.citylab.com/life/2018/06/barcelona-finds-a-way-to-control-its-airbnb-market/562187/> (accessed 20 July 2018).

³⁶³ UK Department for Communities and Local Government, *Promoting the Sharing Economy in London. Policy on Short-Term Use of Residential Property in London*, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/402411/Promoting_the_sharing_economy_in_London.pdf <https://www.gov.uk/government/speeches/short-term-use-of-residential-property-in-london> (accessed 2 August 2018).

³⁶⁴ Sections 44 and 45 of the 2015 Deregulation Act.

³⁶⁵ Loi n° 2014-366 du 24 mars 2014 pour l'accès au logement et un urbanisme rénové.

³⁶⁶ I' Toute personne qui offre à la location un meublé de tourisme, que celui-ci soit classé ou non au sens du présent code, doit en avoir préalablement fait la déclaration auprès du maire de la commune où est situé le meublé.

Cette déclaration préalable n'est pas obligatoire lorsque le local à usage d'habitation constitue la résidence principale du loueur, au sens de l'article 2 de la loi n° 89-462 du 6 juillet 1989 tendant à améliorer les rapports locatifs et portant modification de la loi n° 86-1290 du 23 décembre 1986.

II.- Dans les communes où le changement d'usage des locaux destinés à l'habitation est soumis à autorisation préalable au sens des articles L. 631-7 et L. 631-9 du code de la construction et de l'habitation une délibération du conseil municipal peut décider de soumettre à une déclaration préalable soumise à enregistrement auprès de la commune toute location pour de courtes durées d'un local meublé en faveur d'une clientèle de passage qui n'y élit pas domicile.

Lorsqu'elle est mise en œuvre, cette déclaration soumise à enregistrement se substitue à la déclaration mentionnée au I du présent article.

Un téléservice permet d'effectuer la déclaration. La déclaration peut également être faite par tout autre moyen de dépôt prévu par la délibération susmentionnée.

Dès réception, la déclaration donne lieu à la délivrance sans délai par la commune d'un accusé-réception comprenant un numéro de déclaration.

Un décret détermine les informations qui peuvent être exigées pour l'enregistrement'.

measures³⁶⁷ (requiring notification in all cases).³⁶⁸ Platforms must moreover ensure that the limit of 120 nights per year isn't exceeded and platforms such as Airbnb are automatically enforcing that time limit.³⁶⁹

The city of **Amsterdam** has created three different regimes for shared accommodation. Vacation rentals ('*vakantieverhuur*') regulate the rental of entire apartments or houses for a duration between a single day and up to two months. A maximum of four guests can be accommodated but for no longer than 60 days per year.³⁷⁰ Rentals are subject to compulsory registration with the relevant authorities and disrespect of this obligation is sanctioned with penalties of between EUR 6,000-20,500.³⁷¹ The second option is that of 'Bed&Breakfast' whereby part of a flat or house can be sublet (up to a maximum of 40% of the total surface) while the host is also present (this is not required under the *vakantieverhuur* solution) and no more than four guests. Again, there is no need for a prior license but registration requirements mirror those of *vakantieverhuur*.³⁷² It is worth noting that there is also a third option – that of 'shortstay' under which entire accommodations can be made available for at least seven consecutive nights and a maximum of six months (again with the limit of four guests). This solution does require a license and the total number of 800 licenses has been reached in 2014.³⁷³ Amsterdam also has an agreement with Airbnb in place according to which it levies tourist tax for the city, tracks whether users have reached the maximum number of nights and blocks them from further use afterwards. The platform furthermore shares aggregated data with the city about overall traffic on the platform.³⁷⁴

Vienna has clarified that tourist taxes ('*Ortstaxe*') must be levied by those subletting accommodation in a sharing economy context and a registration duty further exists.³⁷⁵ Many other cities throughout the world have adopted time limits for the subletting of accommodation in a sharing economy context. **San Francisco**, the birthplace of Airbnb, has created a limit of 90 days a year where the host is absent, and there is no limit in case of the host's presence.³⁷⁶

The overview of the above initiatives underlines the growing tendencies of public authorities to **subject home sharing to conditions**. Such strategies seek to **promote 'true sharing'** and thus the efficient and sustainable use of underutilised assets while **avoiding the negative effects** that arise where such practices are not limited to specific circumstances and also to **limit the use of such platforms by professionals**. Below, we review applicable law in Luxembourg and suggest measures that could promote sustainable sharing in the Grand Duchy.

³⁶⁷ As Paris has done Conseil de Paris, 2017 DLH 128 Obligation d'enregistrement de la déclaration préalable prévue à l'article L.314-1-1 du Code du tourisme – Création du téléservice correspondant, verfügbar unter: http://a06.apps.paris.fr/a06/jsp/site/plugins/solr/modules/ods/DoDowload.jsp?id_document=136778&items_per_page=20&sort_name=&sort_order=&terms=téléservice&query=téléservice.

³⁶⁸ See also Art. D324-1-1 II. Code du tourisme.

³⁶⁹ <http://www.lefigaro.fr/flash-eco/2018/06/07/97002-20180607FILWWW00055-airbnb-s-engage-a-bloquer-les-locations-apres-120-jours.php>.

³⁷⁰ <https://www.amsterdam.nl/wonen-leefomgeving/wonen-amsterdam/bijzondere-situaties/particuliere/>

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³⁷² <https://www.amsterdam.nl/wonen-leefomgeving/wonen-amsterdam/bijzondere-situaties/particuliere/>

³⁷³ <https://www.amsterdam.nl/wonen-leefomgeving/wonen/woningeigenaren/verhuren/shortstaybeleid/>

³⁷⁴ The agreement is available online:

https://www.amsterdam.nl/publish/pages/593837/overeenkomst_gemeente_amsterdam_en_airbnb.pdf.

³⁷⁵ § 15 Abs. 1 WTFG n. F.

³⁷⁶ <https://www.sfchronicle.com/business/article/Airbnb-loses-thousands-of-hosts-in-SF-as-12496624.php>.

Luxembourg law

In Luxembourg, the *Loi du 17 juillet 1960 portant institution du statut de l'Hôtellerie* regulates the hotel sector in the Grand Duchy. In accordance with its Article 1, it applies to '*établissements qui sont destinés à héberger, contre paiement, des personnes de passage*'. In order to determine whether home sharing offers are caught by this legislative framework, it would be important to clarify whether individuals subletting (elements of) their residence on an occasional basis are caught by this definition. If so, they will have to comply with the legislation's requirements, including respect of minimum standards of hygiene and comfort,³⁷⁷ appropriate insurance³⁷⁸ or that the price of the room and tax rates be displayed inside the room.³⁷⁹ Clarifying whether these provisions apply to the home sharing sector in Luxembourg is an important step towards higher legal certainty in this domain.

Beyond these provisions applying only to '*établissements qui sont destinés à héberger, contre paiement, des personnes de passage*', the 1960 law contains another important requirement that may apply to any form of home sharing. Indeed, Article 18 of the Law of 17 July 1960 provides that '*Nul particulier ne peut héberger **habituellement** contre paiement des voyageurs s'il n'a pas fait enregistrer ses chambres par l'administration communale de la situation des chambres*'. It is currently uncertain, how '*habituellement*' should be interpreted. **We strongly encourage the relevant authorities to provide guidance on this in order to remedy the current lack of certainty.** Two broad interpretations of how this provision should be applied to sharing economy activities can be envisaged.

First, it could be argued that someone making available housing for a **limited time period** per year only (such as 60 or 90 days), **isn't considered to habitually offer housing**, and is accordingly exempt from the registration duty under Article 18 of the Law of 17 July. This solution would have the advantage of making it easy and unbureaucratic for individuals to make housing space available through online intermediary platforms.

Alternatively, one could consider that through its 1960 law, Luxembourg already has a legal registration duty, similar to those that many jurisdictions are now creating. This legal obligation could be used as the **basis for a regime that allocates identifiers to individuals advertising housing space** to the platform that would be communicated to the platform. Where an individual would register their room with the municipality, the latter could allocate a pseudonymous identifier to that individual that would be used in their interactions with the platform. This, in turn, would prevent the emergence of professional service providers that make multiple housing spaces available for long periods of time on known platforms. A sustainable form of home sharing is most likely to develop where individuals can only make available housing space for a limited time period per year, ensuring that valuable housing space disappears from an already heated market. Furthermore, these identifiers could be used to monitor tax compliance and platforms could be asked to, as in other jurisdictions, monitor for how long housing is available and after, say 60 or 90 days of rental per year automatically delist the listing from the platform. In the same vein, eventual local taxes can also be levied directly by the platform.

On the basis of the 1960 law, Luxembourg could thus build a regime that either exempts certain providers from regulatory constraints where they only share housing for a short-term period or, alternatively, use the existing regime to create registration schemes. A combination of both regimes, based on thresholds, can also be envisaged. These solutions

³⁷⁷ Article 3-5 of the law of 17 July 1960.

³⁷⁸ Article 7 of the law of 17 July 1960.

³⁷⁹ Article 8 of the law of 17 July 1960.

would require the definition of **time limits** during which accommodation can be made available, in line with what many of other jurisdictions are now adopting. **We recommend that Luxembourg adopt such time limits in order to encourage a sustainable sharing economy in the accommodation sector.** Beyond, the 1960 law examined above, there are other legal requirements that may apply to sharing economy transactions in the accommodation sector.

For suppliers and users wishing to engage in sustainable sharing economy practices, **information** is currently hard to come by. **If the Luxembourg government would decide to promote a sustainable variant of home sharing in the Grand Duchy, this situation should be improved to promote legal certainty and user trust in such practices.** It appears that information was already made available on **Guichet.lu** in December 2016. Unfortunately, this information no longer appears to be online. Here, citizens were informed that they must comply with lease requirements (*'bail à loyer'*) under Luxembourg law such as respect for cleanliness and hygiene, habitability and security.³⁸⁰ To illustrate, Article 1719 of the Luxembourg Civil Code clarifies that a landlord is obliged to *'entretenir cette chose en état de servir à l'usage pour lequel elle a été louée'*.³⁸¹ Further obligations included the need to document the guest's stay in a *fiche d'hébergement* and to declare related profits with the *Administration des Contributions Directes*.³⁸² Citizens were moreover informed that their activities are subject to VAT if the annual profit exceeded EUR 30,000.³⁸³

The guidance however also appeared to leave some important questions unanswered such as concerning applicable rules for **secondary residences and properties for commercial use**.³⁸⁴ Further, while the guidance provided that registration of guests with the municipality was required, it didn't specify whether was also a need to notify local authorities that residential property was now being used for professional activity (which is subject to the mayor's approval).³⁸⁵ This is an important point and it would be important to clarify this. Indeed, the sharing of underused residential space would likely be disincentivised where such reclassification is mandatory for those only occasionally renting out their space. What is more, it is important for guests to be informed whether their counterparty acts as a provider or consumer as this determines their rights (in line with our analysis above). General information allowing guests to infer such information could be made available online by public authorities, or directly by the platform itself.

Further information that should be made available is whether a **taxe de séjour** ought to be paid on sharing economy transactions in the accommodation sector. To illustrate, Article 1 of Chapter G-4 of the *Règlement Taxe de la Ville de Luxembourg* (2017) provides that such tax ought to be paid by *'les personnes qui ont pris en location des chambres ou des appartements garnis dans les hôtels, auberges et pensions de famille et qui ne sont pas inscrites aux registres de la population comme y résidant sont redevables d'une taxe au profit de la ville. Les personnes qui font profession de donner en location lesdits chambres et*

³⁸⁰ Fondation IDEA, Avis Annuel 2017: Monde de Partage ou Partage du Monde? (12 April 2017) <http://www.fondation-idea.lu/wp-content/uploads/sites/2/2017/04/Avis-annuel-2017-IDEA-Monde-du-partage-ou-partage-du-monde.pdf> 62.

³⁸¹ Article 1719(1) of the Luxembourg Civil Code.

³⁸² Ibid.

³⁸³ See further Article 57 (1) of the Luxembourg Law on VAT (2018).

³⁸⁴ Fondation IDEA, Avis Annuel 2017: Monde de Partage ou Partage du Monde? 62.

³⁸⁵ Article 18 de la Loi du 17 juillet 1960 portant institution du statut de l'Hôtellerie.

appartements sont tenues de percevoir les montants dus du chef de la taxe et de les transmettre à la recette communale, selon les modalités fixées aux articles suivants'. Yet, it isn't apparent whether sharing economy transactions in the accommodation sector are subject to this tax or not. This could be specified and communicated to the broader public in an easily accessible and understandable format online.

Compatibility with EU law

The registration duties outlined above are essentially **market access requirements**, so that attention must be paid to the compatibility of such domestic measures with EU law.³⁸⁶ The Services Directive and the E-Commerce Directive limit Member States' leeway to adopt such measures.

Under Article 4(1) of the **Services Directive**, a provider is defined as 'any natural person who is a national of a Member State, or any legal person as referred to in Article 48 of the Treaty and established in a Member State, who offers or provides a service'. It is not necessarily required that the provider's activity qualifies as professional activity for it to be subject to the Services Directive. A 'service' covers any self-employed activity outside the ties of an employment contract normally provided for remuneration (thus economic activity).³⁸⁷ Recital 9 of the Services Directive underlines that its requirements do not apply to 'rules concerning the development or use of land, town and country planning'. Case law however underlines that this cannot be applied to rules imposing conditions on home sharing.³⁸⁸ It follows that registration requirements would be caught by Article 9 of the Services Directive according to which Member States shall not, as a general rule make access to a service activity of the exercise thereof subject to authorisation schemes.³⁸⁹ In some circumstances such rules (such as registration duties) can nonetheless be justified, namely where (i) it doesn't discriminate against the provider in question; (ii) the need for an authorisation requirement is 'justified by an overriding reason relating to the public interest'; and (iii) the objective pursued cannot be achieved by less restrictive means.³⁹⁰ **Provided that the registration duties that are formulated respect the principle of proportionality should thus be in accordance with EU law.**

Under the **E-Commerce Directive**, Member States may not impose prior authorisation requirements (or any other requirement having an equivalent effect) on information society providers.³⁹¹ Yet, it is worth noting that the ECJ has interpreted this notion restrictively in the *Uber Spain* case. A case pending before the Court will soon shed light on whether a home sharing platform (Airbnb) is to be considered as an information society service under EU law. In any event, Member States are always free to 'establish obligations for information society service providers promptly to inform the competent public authorities of alleged illegal activities undertaken or information provided by recipients of their service or obligations to communicate to the competent authorities, at their request, information enabling the identification of recipients of their service with whom they have storage agreements'.³⁹² This should permit obligations imposed on platforms to monitor whether potential time limits have been exceeded.

³⁸⁶ See Article 4(8) of the Services Directive.

³⁸⁷ 12 December 1974, Walrave, Case 36/74.

³⁸⁸ Case C-360, X (2018) EU :C :2018 :44.

³⁸⁹ Article 9(1) of the Services Directive.

³⁹⁰ Article 9(1) of the Services Directive.

³⁹¹ Article 4(1) of the E-Commerce Directive.

³⁹² Article 15(2) of the Services Directive.

3. Enforcement

Enforcing registration requirements and time limits through traditional avenues can be difficult as **detecting and enforcing breaches is burdensome without technological assistance**. This is why more and more public authorities are involving platforms in enforcing their regulatory requirements. In **Amsterdam**, time limits are enforced by Airbnb.³⁹³ In **Lisbon**, Airbnb collects tourist tax on behalf of hosts.³⁹⁴ In **France**, Airbnb has concluded agreements with 19 cities pursuant to which it collects tourist taxes on behalf of them.³⁹⁵ Between October and December 2015 it had collected EUR 1.2 million of fiscal income in **Paris** alone.³⁹⁶ Similar arrangements are being negotiated in **Spain**.³⁹⁷ We encourage the Luxembourg authorities to adopt such a co-regulatory approach and collaborate with the most important providers in this respect.

4. Traditional home sharing

As much of the discussion is focused on recent platform-enabled forms of sharing in the accommodation sector, more traditional forms of sharing may get overlooked. Traditional **flat shares or home shares** are a close cousin of the sharing economy that have existed for a long time. Whereas in Luxembourg this has long been a marginal phenomenon, it is, due to changing demographics and housing markets, gaining in importance. Nonetheless, **appropriate legal recognition of such models is still lacking**. It has amply been stressed in the Luxembourg context that flat sharing needs a more official status to encourage landlords to let their property to groups of people.³⁹⁸ Some municipalities indeed continue to discourage this practice.³⁹⁹ **Flat sharing and home sharing could be demystified through an adequate legal framework**. Indeed, some provisions of Luxembourg housing law appear unfit for such models, such as the requirement that a kitchen has to be equipped with ten stovetops augmented by as many stovetops as there are residents if there are more than six.⁴⁰⁰ Further, municipalities' leeway to limiting flat and home shares through zoning requires further specification.⁴⁰¹ After all, such forms of home sharing are highly sustainable and an expression of true sharing as underutilised housing space is used more efficiently on a permanent basis. Furthermore, such measures can be a step to better integrate young professionals, especially those coming from abroad, when arriving in Luxembourg and make moving to Luxembourg more attractive for them.

Summary of the most important legal provisions

Article 1 of the *Loi du 17 juillet 1960 portant institution du statut de l'Hôtellerie* provides that this legislation applies to '*établissements qui sont destinés à héberger, contre paiement, des personnes de passage*'. Right now, there is considerable uncertainty as to whether sharing economy participants can be caught by that definition.

Article 18 of the Law of 17 July 1960 provides that '*Nul particulier ne peut héberger habituellement contre paiement des voyageurs s'il n'a pas fait enregistrer ses chambres*'.

³⁹³ <https://www.airbnbucitizen.com/airbnb-and-amsterdam/>.

³⁹⁴ Ibid.

³⁹⁵ <https://paris.airbnbucitizen.com/fr/airbnb-simplifie-la-collecte-de-la-taxe-de-sejour-dans-19-villes-en-france/>.

³⁹⁶ Ibid.

³⁹⁷ <https://www.airbnbucitizen.com/airbnb-ready-to-collect-the-tourist-tax-in-spain/>.

³⁹⁸ Fondation IDEA, Cahier Thématique 1/5 Logement au Luxembourg (26 avril 2018) 17.

³⁹⁹ Fondation IDEA, Cahier Thématique 1/5 Logement au Luxembourg (26 avril 2018) 17.

⁴⁰⁰ Règlement grand-ducal du 15 juin 1979 déterminant les critères de location, de salubrité ou d'hygiène auxquels doivent répondre les logements destinés à la location.

⁴⁰¹ Fondation IDEA, Cahier Thématique 1/5 Logement au Luxembourg (26 avril 2018) 18.

par l'administration communale de la situation des chambres'. Providing guidance on the interpretation of 'habituellement' is imperative to create legal certainty in this domain.

POLICY RECOMMENDATION 8: Promoting sustainable forms of sharing in the accommodation sector.

In order to encourage a sustainable variant of sharing in the accommodation sector, **more information** regarding the related legal rights and obligations must be made available to increase legal certainty and trust. This can be done by the relevant **national authorities or through the involvement of platforms**, which can carry out this information-supplying role on a case-by-case basis.

In particular, there is uncertainty as to whether **registration duties** under Article 18 of the Law of 17 July 1960 apply to sharing economy transactions. We recommend that the Luxembourg government specifies that point. It could decide to either create a *de minimis* threshold or use existing law as the basis for registration duties coupled with time limits to encourage the sustainable development of sharing practices in the accommodation sector. **Legal certainty should also be removed regarding the applicability of the *taxe de séjour* in municipalities that levy it.**

There are two further concrete steps the Luxembourg government could adopt in relation to the promotion of sustainable forms of sharing in the accommodation sector. First, conventional **long-term flat or home sharing** necessitates appropriate legal recognition in Luxembourg, which is not currently the case. This could be achieved through a reform of the *Loi du 21 septembre 2006 sur le bail à usage d'habitation et modifiant certaines dispositions du Code civil*.

In addition, the government could consider devising time limits for **short-term home sharing**, for example by allowing residents to sublet their place for a short period of time, such as when they are away on holiday.

VI. Employment relations

Whether platforms that provide intermediation for work qualify as forming part of the sharing economy, is subject to debate. On the one hand, a distinct phenomenon of the gig economy has emerged whereby casual labour is promoted through platforms. On the other hand, some consider that this forms part of the sharing economy as the underutilised or idle assets put to work here are someone's time or skills. Considering that these business models are in any case at the forefront of debates, we also consider them here.

This transformation of employment relations forms part of a **broader ongoing transformation of the nature of work** in terms of both substance and organisation. The **substance of work** has been impacted by digital transformation such as with the emergence of entirely new job descriptions, such as that of a data scientist, and relatedly the need for new skills and education strategies. The **form and organisation of work** have been equally affected by digital transformation. Technological change has made it possible to connect at a distance through the Internet (a trend accelerated through mobile connectivity) as digital document storage and management facilitate collaboration at a distance. The possibility for remote coordination has given rise to flexible work arrangements such as the option of doing home office days and collaboration with individuals located in other countries.

In determining the impact of platforms on labour relations, it is helpful to **differentiate between local and global online labour markets**. In **global labour markets**, the

contracted work can be performed remotely so that the supplier's location is of no importance. An example would be design work contracted over the Internet or translation services. Here, platforms create a significantly vaster pool of supply and demand that can be matched irrespective of geographic constraints. In **local labour markets**, local tasks that are simply contracted online such as baby or dog sitting, transportation services, assistance with household tasks. Whereas platforms enlarge the pool of supply and demand and make matching more straightforward and efficient, geography play a pivotal role, as these tasks cannot be carried out remotely. Due to this territorial attachment, regulation can more easily be imposed on local as opposed to global labour markets.

Generally speaking, **platform-contracted work often qualifies as non-standard work** (NSW). According to the OECD, temporary and non-standard work is (i) often not entered to voluntarily but rather seen as a placeholder for more permanent and stable forms of employment; (ii) not subject to continuous training and learning provided by employers; (iii) less well remunerated than standard work; (iv) less likely to benefit from social benefits.⁴⁰² Examples of platform-contracted work include Amazon Mechanical Turk which provides an intermediation service for tasks that computers are currently unable to do (the jobs posted as referred to as 'Human Intelligence Tasks' in contrast to Artificial Intelligence).⁴⁰³ Another example is Upwork, a global freelancing platform that allows businesses and independent professionals to connect and collaborate remotely.⁴⁰⁴ There are also specialised platforms, such as DogVacay or Pawshake for pet sitters and dog walkers.⁴⁰⁵ It is hotly debated whether these models are desirable or undesirable from a public policy perspective.

A. Risks

Recent research has revealed the risks associated with platform-based labour intermediation. It has been shown that many of these jobs are 'characterized by temporary contracts, long and **irregular hours, and low income**, and they are often unregulated'.⁴⁰⁶ Indeed, because tasks are short-term, there is often no formal requirement for clients to provide employment benefits, creating precarious situations for workers. Another consequence is that in such circumstances, workers typically have **less bargaining power** than in standard labor markets'.⁴⁰⁷ Some accordingly fear that sharing economy stimulates further growth of **precarious employment**.⁴⁰⁸ Others consider that platform-based work arrangements **take Taylorism to its extremes** in giving workers anonymous micro-tasks.⁴⁰⁹ Seen from this perspective, 'the crowdwork model may be more of a throwback to the industrial model, incorporating the efficiency and control of automatic management, without the industrial model job security or stability'.⁴¹⁰ Others speak of a 'toxic working environment, whereby uncertainty as to the kind of work and the level of pay is common, there is insecurity as to the next micro-task to be performed, or more generally the existence of employment and isolation reign: we have the expansion of

⁴⁰² OECD, 'New Forms of Work in the Digital Economy' (2016) OECD Digital Economy Papers, No 260, https://www.oecd-ilibrary.org/science-and-technology/new-forms-of-work-in-the-digital-economy_5jlwnklt820x-en, at 5.

⁴⁰³ <https://www.mturk.com/>.

⁴⁰⁴ <https://www.upwork.com/>.

⁴⁰⁵ <https://dogvacay.com/>.

⁴⁰⁶ Mark Graham and Mohammad Amir Anwar, 'Two Models for a Fairer Sharing Economy' in Nestor Davidson et al., *The Cambridge Handbook on the Law of the Sharing Economy* (Cambridge University Press 2018) 328, 328.

⁴⁰⁷ Ibid.

⁴⁰⁸ Antonio Aloisi, 'Commoditized Workers: Case Study Research on Labor Law Issues Arising from a Set of "On-Demand/Gig Economy" Platforms' (2016) 37 *Comparative Labor Law and Policy Journal* 653, 683.

⁴⁰⁹ Miriam Cherry 'Beyond Misclassification: The Digital Transformation of Work' (2016) 37 *Comparative Labor Law and Policy Journal* 544.

⁴¹⁰ Ibid.

precarious labour, with all the social risks and downturns this entails'.⁴¹¹ **Flexibility comes at a cost for workers.** The International Labour Organization estimates that for every hour of paid work, a worker in online labour markets spends 18 minutes of unpaid work.⁴¹²

One aspect that has caused particular concern is that of the **algorithmic control of workers.** For instance, Uber is known to use behavioural measures to manipulate workers.⁴¹³ Many platforms use such digital surveillance methods. Upwork uses productivity in terms of keystrokes, while other platforms use regulatory screenshots and activity logs.⁴¹⁴ These trends have been interpreted as inaugurating an age of 'algocracy' where algorithm-based governance replaces markets and hierarchy.⁴¹⁵ On the other hand, however, this transformation of work can be considered to also have advantages.

A final aspect concerns skills development opportunity and upskilling of the labour force. Recent studies show that platform work tends to attract high-skilled workers who are able to overcome the challenges associated with it (e.g. manage multiple jobs, building and maintaining an online reputation, etc.).⁴¹⁶ However it is also important to highlight that platform work can leave little time to learning practices and therefore can damage a population's skill level in the long run.⁴¹⁷

B. Benefits

It is worth noting that some platforms are actively adopting measures to avoid some of the negative consequences explored in the next chapter. For example, Munchery (food preparation and delivery) or Hello Alfred (errands and chores) hire their workers as employees whereas others put in place savings accounts, to offset bad with good months and make sure workers receive a fixed monthly income.⁴¹⁸

It is important to bear in mind that platforms are but a technological tool, which can express many different ideologies and organisation principles. With this in mind it has been suggested that platforms could be used to create modern-day cooperatives that give workers greater control.⁴¹⁹ The Platform Cooperativism Consortium promotes this idea and has almost 300 member organisations worldwide.⁴²⁰ Luxembourg-based *Hexalina* is one of them.⁴²¹ Rather than focusing on advertising and data-gathering, it promotes a platform model where value is driven through the alignment of interests of all ecosystem stakeholders. Other platform cooperatives include *Molenbike*, an eco-friendly bike delivery service in Brussels⁴²² and *Alpha Taxis*, an app-powered taxi driver cooperative with about

⁴¹¹ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 155.

⁴¹² As cited in: Marion Schmid-Drüner. 'The Situation of Workers in the Collaborative Economy' (2016) Employment and Social Affairs, European Parliament, http://www.europarl.europa.eu/RegData/etudes/IDAN/2016/587316/IPOL_IDA%282016%29587316_EN.pdf, 10.

⁴¹³ <https://www.nytimes.com/interactive/2017/04/02/technology/uber-drivers-psychological-tricks.html>.

⁴¹⁴ Cristiano Cordagnone, Fabienne Abadie, Federico Biagi, 'The Future of Work in the "Sharing Economy": Market Efficiency and Equitable Opportunities or Unfair Precarisation?' (2016) EU Commission Joint Research Centre Science for Policy Report No 27913, available at: <http://publications.jrc.ec.europa.eu/repository/bitstream/JRC101280/jrc101280.pdf>.

⁴¹⁵ A Aneesh: 'Global Labour: Algocratic Models of Organization' (2009) 27 Sociological Theory 347.

⁴¹⁶ OECD. New forms of work in the digital economy (2016).

⁴¹⁷ CEPS, IZA. Online talent platforms, labour market intermediaries and the changing world of work (2018).

⁴¹⁸ Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart 2018) 157.

⁴¹⁹ See further Mark Graham and Mohammad Amir Anwar, 'Two Models for a Fairer Sharing Economy' in Nestor Davidson et al., *The Cambridge Handbook on the Law of the Sharing Economy* (Cambridge University Press 2018) 328.

⁴²⁰ The Platform Cooperativism Consortium, Platform Co-op, <https://platform.coop/about/consortium>; Trebor Scholz, *Platform Cooperativism: Challenging the Corporate Sharing Economy* (2016).

⁴²¹ <http://hexalina.io/xfair/>.

⁴²² <http://www.molenbike.be/en/index.html>.

1,500 drivers in Paris.⁴²³ Similar models have been initiated across the world such as *Cotabo* (Bologna, Italy), *ATX Co-op Taxi* (Texas), *Green Taxi Cooperative* (Colorado), *The People's Ride* (Michigan), and *Yellow Cab Cooperative* (California).⁴²⁴ Under such models, workers are involved in the definition of the business model and its execution and don't lose a significant share of the profits generated to the platform. To contrast, Uber earns 25% of the fee paid for each ride.⁴²⁵ We return to this model when discussing blockchain technology's potential impact on the sharing economy below.

C. Are platform workers employees?

With the emergence of new forms of platform-facilitated work, the **question of whether suppliers on such platforms are employees of the platform** has emerged. This qualification has considerable implications as where suppliers are found to be employees, the obligations of the platform towards the supplier increase whereas the rights of the supplier vis-à-vis the platform do too. Finding an answer to this question is often far from easy. In the words of an American judge it requires a decision as to 'whether a multifaceted product of a new technology should be fixed into either the old square or the old round hole of existing legal categories, when neither is a perfect fit'.⁴²⁶

In Europe, this question is currently being discussed predominantly in relation to drivers of the UberPop service.⁴²⁷ A number of domestic courts have found that these drivers, or those in a similar factual situation are indeed workers. In the UK, Uber drivers have been found to be employees.⁴²⁸ In France, a labour tribunal equally held that a driver of LeCab⁴²⁹ was an employee.⁴³⁰

Determining whether an individual is an employee is a matter for domestic law. **In Luxembourg, the following definition of an employment relation** has been adopted: '*convention par laquelle une personne s'engage à mettre son activité à la disposition d'une autre, sous la subordination de laquelle elle se place, moyennant rémunération*'.⁴³¹ Under Luxembourg law there are hence two elements that are particularly important in determining whether someone is an employee. First, that an individual works under the subordination of another party and, second, that this is done against remuneration. This **functional test** favours reality over form. Indeed, it has further been clarified that '*Le contrat de travail ne dépend ni de la volonté exprimée par les parties, ni de la dénomination de leur convention, mais des conditions dans lesquelles la prestation de travail est fournie*'.⁴³²

If an employment relation is confirmed to exist, the regime under the Luxembourg *code de travail* apply and the employee cannot be subject to conditions that are less favourable to them than those contained in the code du travail and as derived from the relevant instruments of European law such as the Working Time Directive. There is thus at least an

⁴²³ <http://www.alphataxis.fr/>.

⁴²⁴ Mark Graham and Mohammad Amir Anwar, 'Two Models for a Fairer Sharing Economy' in Nestor Davidson et al., *The Cambridge Handbook on the Law of the Sharing Economy* (Cambridge University Press 2018) 328, 336.

⁴²⁵ <https://www.uber.com/en-GH/drive/resources/payments/>.

⁴²⁶ Judge Chhabria, *Cotter v Lyft Inc* 60 F Supp 3d 1067, ND Cal 2015.

⁴²⁷ Uber offers a range of different services. UberPop is the most well-known variant thereof which involves an on-demand intermediated through the platform where the driver is in most circumstances not a licensed taxi driver.

⁴²⁸ Case Nos 2202551/2015 Aslam, Farrar & Others v Uber, Judgment of 28 October 2016.

⁴²⁹ <https://en.lecab.fr/>.

⁴³⁰ Cécile Crouzel, 'Pour la première fois, un chauffeur de VTC est reconnu salarié par la justice' *Le Figaro* (27 January 2017), <http://www.lefigaro.fr/social/2017/01/27/20011-20170127ARTFIG00014-pour-la-premiere-fois-un-chauffeur-de-vtc-est-reconnu-salarie-par-la-justice.php>. The judgment was primarily based on the exclusivity clause in the contract, however.

⁴³¹ C.S.J. du 05.03.1975 Hoffmann c/ Hermann.

⁴³² C.A. dz 25.10.2005, no 01-45.147.

argument to be made that **Luxembourg courts would hold that at least some actors in the gig economy would be found to be employees of the related platform**. The requirement that there be a **link of subordination** is helpful. Indeed, this appears to be a valuable criterion to distinguish those effectively working for the platform from peers that merely use the platform as an intermediation service for independent activity.

D. The need for further legal clarification

Beyond employment law other legal questions have emerged in relation to these new business models. In Luxembourg, an **autorisation d'établissement** is required for the exercise of many forms of professional activity.⁴³³ For example, the communication and multimedia activity or other artisanal activities require prior authorisation, potentially barring individuals from offering related services on a temporary basis through skill-sharing websites.⁴³⁴

Whereas prior authorisation is paramount in some sectors (such as medical services) it is worth questioning whether it really is necessary in others that are currently listed in Luxembourg law, or alternatively whether **thresholds should be designed for peers that do not undertake such activity as their main profession** but rather on an occasional basis.⁴³⁵ This could be specified by threshold relating to the amount of days active or income levels. It further appears that there are currently some grey areas in this domain, such as whether the Horeca sector (hotels, restaurants and bars) activity that is subject to authorisation encompasses activity such as home sharing or meal-sharing.

The Ministry of the Economy issued valuable guidance in this respect in highlighting that nothing stands in the way of home sharing as long as providers don't act as professionals. This is a great starting point but **leaves open the question as to what relevant thresholds are, as well as what the applicable tax treatment should be**. It would be opportune to **generate more certainty through the definition of thresholds** as to when users become subject to VAT, other fiscal obligations and social contributions but also when a prior authorisation under the *droit d'établissement* is required.⁴³⁶

It appears that there used to be guidance available on **Guichet.lu** that has since been removed.⁴³⁷ Restoring such guidance would be an important step towards more legal certainty and trust in sharing practices. It appears that the guidance available in the past left out important questions such as whether hosts making temporary accommodation available must **register their guests** with the municipality under the *Loi du 17 juillet 1960 portant institution du statut de l'Hôtellerie* that requires such registration for those habitually providing accommodation against payment.⁴³⁸ Whether, and if so under which threshold a sharing economy host is caught by this provision remains unclear. Equally,

⁴³³ Article 1 of the Loi du 2 septembre 2011 réglementant l'accès aux professions d'artisan, de commerçant, d'industriel ainsi qu'à certaines professions libérales provides that 'nul ne peut, dans un but de lucre, exercer à titre principal ou accessoire, une activité indépendante dans le domaine du commerce, de l'artisanat, de l'industrie ou des professions libérales visées par la loi sans être titulaires d'une autorisation d'établissement'.

⁴³⁴ Fondation IDEA, Avis Annuel 2017: Monde de Partage ou Partage du Monde? (12 April 2017) <http://www.fondation-idea.lu/wp-content/uploads/sites/2/2017/04/Avis-annuel-2017-IDEA-Monde-du-partage-ou-partage-du-monde.pdf> 58.

⁴³⁵ Fondation IDEA, Avis Annuel 2017: Monde de Partage ou Partage du Monde? (12 April 2017) <http://www.fondation-idea.lu/wp-content/uploads/sites/2/2017/04/Avis-annuel-2017-IDEA-Monde-du-partage-ou-partage-du-monde.pdf> 58.

⁴³⁶ Ibid, 62.

⁴³⁷ Ibid.

⁴³⁸ In accordance with Article 18 of that law. See further Fondation IDEA, Avis Annuel 2017: Monde de Partage ou Partage du Monde? (12 April 2017) <http://www.fondation-idea.lu/wp-content/uploads/sites/2/2017/04/Avis-annuel-2017-IDEA-Monde-du-partage-ou-partage-du-monde.pdf> 62.

there is no clear guidance as to whether sharing economy hosts are required to pay the **tourist tax** (*taxe de séjour*) of 3% that must be paid in Luxembourg city.⁴³⁹

Most important legal provisions

In Luxembourg, case law has defined an employment relationship as *'convention par laquelle une personne s'engage à mettre son activité à la disposition d'une autre, sous la subordination de laquelle elle se place, moyennant rémunération'*.⁴⁴⁰

POLICY RECOMMENDATION 9: Relaxing or facilitating requirements for platform workers below a certain threshold.

In order to promote a sustainable use of platforms as intermediaries for work, the Luxembourg government could adopt a number of options. It could **provide thresholds as to when a person merely acts as a peer on an occasional basis and relax some of the requirements related to autorisations d'établissement** under the *Loi du 2 septembre 2011 réglementant l'accès aux professions d'artisan, de commerçant, d'industriel ainsi qu'à certaines professions libérales*.

Further, the establishment of **platform-based worker cooperatives** could be explored in a pilot project. Blockchain technology, examined just below, could provide some of the necessary technical underpinnings for such a project.

VII. The potential impact of blockchain technology on the sharing economy

As policy debates should always be forward-looking, it is necessary to mention at this stage ongoing debates about the potential future transformation of the sharing economy through recent technological developments. Indeed, many consider that the sharing economy as discussed today will soon belong to the past as **blockchain technology may transform the technological underpinnings and organisational structure of current sharing economy platforms**.

A. Blockchain technology

This section provides a brief introduction to the technical characteristics of blockchains and then illustrates their functionality. This will enable us to discuss their potential impact on sharing economy business models.

In essence, a blockchain is a **shared and synchronised digital database** that is maintained by an algorithm and stored on multiple nodes (the computers that store a local version of the distributed ledger).⁴⁴¹ Blockchains are a peer-to-peer network, with the nodes serving as the different peers.⁴⁴² As its etymology reveals, a blockchain is a chain of blocks.⁴⁴³ A block groups together multiple transactions and is then added to the existing chain of blocks. Data is grouped into blocks that, upon reaching a certain size, are chained to the existing ledger through a hashing process.⁴⁴⁴ The ledger's blocks have different key

⁴³⁹ Fondation IDEA, Avis Annuel 2017: Monde de Partage ou Partage du Monde? (12 April 2017) <http://www.fondation-idea.lu/wp-content/uploads/sites/2/2017/04/Avis-annuel-2017-IDEA-Monde-du-partage-ou-partage-du-monde.pdf> 62.

⁴⁴⁰ C.S.J. du 05.03.1975 Hoffmann c/ Hermann.

⁴⁴¹ For a more detailed introduction to blockchain technology and its legal implications, see Michèle Finck 'Blockchain Regulation and Governance in Europe' (Cambridge University Press 2018).

⁴⁴² A 'peer' of course doesn't have to be a private individual but can also be a corporation.

⁴⁴³ It is worth noting that as the technology evolves this structure might eventually cede way to other forms of data-storage.

⁴⁴⁴ A hash is essentially a unique fingerprint that represents information as a string of characters and numbers.

components, including the hash of all transactions contained in the block (its 'fingerprint'), a timestamp, and a hash of the previous block (which creates the sequential chain of blocks). Because blocks are continuously added but never removed, a blockchain can be qualified as an append-only data structure. Cryptographic hash-chaining makes the log tamper-evident, which increases transparency and accountability.⁴⁴⁵ Indeed, because of the hash linking one block to another, changes in one block change the hash of that block, as well as of all subsequent blocks.

Blockchain networks achieve **resilience through replication**. The ledger's data is resilient as it is simultaneously stored on many computers so that even if one or several nodes fail, the data goes unaffected. Through its design, a distributed ledger moreover reduces verification costs (the verification of a transaction's attributes) and networking costs (the ability to bootstrap and operate a marketplace without the need for an intermediary).⁴⁴⁶

When talking about 'blockchain' it is important to note that this is not one technology but rather a **class of technologies**. The technical properties of various blockchains differ, as do their governance structures. It is indeed important to distinguish between **private and public** as well as **permissioned and permissionless** blockchains. In public blockchains anyone can be an account holder whereas prior admission to the system is needed in private systems. Similarly, in permissionless systems anyone can verify new transactions, whereas prior selection occurs in permissioned blockchains.

It is important to note that blockchains **are both a new technology for data storage as well as a novel variant of a programmable platform** that allows for the decentralised administration of software including the much-discussed smart contracts.⁴⁴⁷ Distributed ledgers thus provide a replicated database that is updated in a decentralised manner. While this database can be used independently, such as to record transactions in cryptoassets or register information; it can also serve as the ground level on which further edifices are constructed, which in the blockchain case are labelled 'decentralised applications' because they reflect the decentralised structure of the underlying network. At this stage, many are **exploring the potential of such decentralised applications for the sharing economy**.

B. Blockchain technology and the sharing economy

Blockchain accordingly has the capacity to **run software in a decentralised yet secure manner**. The absence of a central server implies that there is no need for an intermediary operator – such as Uber or Airbnb.⁴⁴⁸ In such networks, self-executing software code (which is referred to as a 'smart contract') is used to execute transactions at lower cost and without the need for a controlling intermediary. Some are hoping that due to these developments 'the fusion of blockchain and the sharing economy may create a revolution that will transform our economy and share the wealth beyond certain companies and individuals'.⁴⁴⁹

⁴⁴⁵ Ed Felten, 'Blockchain: What is it good for?' (*Freedom to Tinker*, 26 February 2018) <<https://freedom-to-tinker.com/2018/02/26/bloc>> accessed on 3 April 2018.

⁴⁴⁶ Christian Catalini and Joshua Gans, 'Some Simple Economics of the Blockchain' (2016) Rotman School of Management Working Paper No. 2874598, 1 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2874598> accessed on 3 April 2018.

⁴⁴⁷ A smart contract essentially is self-executing software code.

⁴⁴⁸ Primavera De Filippi, 'What Blockchain Means for the Sharing Economy', *Harvard Business Review* (15 March 2017) <https://hbr.org/2017/03/what-blockchain-means-for-the-sharing-economy> (accessed 29 August 2018).

⁴⁴⁹ Omri Bazilay, 'Why Blockchain is the Future of the Sharing Economy' (*Forbes* 14 August 2017) <https://www.forbes.com/sites/omribazilay/2017/08/14/why-blockchain-is-the-future-of-the-sharing-economy/#529547ef3342> (accessed 29 August 2018).

Indeed, there are **many projects that experiment with blockchain technology in relation to the sharing economy**. Open Bazaar was an early initiative in this space. It essentially is a decentralised marketplace for any good that is not run by a company or entity, which explains why there are no fees for usage.⁴⁵⁰ Swarm City is a newer example of a blockchain-based marketplace with a built-in reputation system that allows parties to transact with another without third-party intermediaries.⁴⁵¹ Beenest adopts a business model similar to Airbnb but manages to keep its costs down by using blockchain technology.⁴⁵² LaZooz and ArcadeCity are decentralised and community-owned platforms that use blockchain technology to enable a car sharing service inspired by what was first debuted by Uber but without the corporate intermediary in the middle.⁴⁵³ Mass Vehicle Ledger, a South Korean start-up is currently testing its ride-hailing app in Singapore.⁴⁵⁴ Drivers aren't charged a commission for using this service.⁴⁵⁵ Helbiz uses blockchain technology to create a marketplace that turns any vehicles (including cars and bicycles) into Internet of things (IoT) devices.⁴⁵⁶ Its effort to decentralise transportation seeks to allow users to rent out their private cars or bicycles with all interaction occurring through mobile phones. It is also worth noting that Airbnb itself has hired a team of blockchain experts.⁴⁵⁷

These are but some of **many new ventures at the intersection of the sharing economy and blockchain**, testifying to avid experimentation and innovation in this domain. However, it is important to bear in mind that the mere use of blockchain technology in sharing economy business models doesn't mean that these business models are necessarily transformed. Indeed, where incumbent intermediaries use this technology merely to render their operation more efficient, **little may change** for suppliers and users. On the other hand, however, the technology may be leveraged for **entirely new business models** echoing the concept of platform cooperativism.

In relation to blockchain technology there remain many open questions. In particular, it remains uncertain whether technical limitations currently associated with the technology can be remedied, lacking understanding of the cryptoeconomic incentive structures used in such systems and so forth. Nonetheless, the ideas expressed by the ventures described above are likely a sign of what is to come in the future – business models.⁴⁵⁸

Whether any of these trends will occur remains to be seen. The future of blockchain will depend on how the technology develops (as of now it suffers from limitations that make it difficult to deploy it at scale), on the market (both by supply and demand but also by existing lock-in effects) but also on **public authorities' early approach** to the technology. Indeed, governments have a range of incentivising mechanisms available to them that determine the technology's development (such as research funding), its normative configurations (through legal frameworks such as the GDPR that prevents some forms of data handling) but also a **possible future for the blockchain economy's territorial grounding**.

⁴⁵⁰ <https://openbazaar.org/>.

⁴⁵¹ <https://thisis.swarm.city/>.

⁴⁵² <https://www.beenest.com/>.

⁴⁵³ <http://lazooz.org/>, <https://arcade.city/>.

⁴⁵⁴ Jack Ellis, 'Another ride-hailing app enters Singapore's post-Uber vacuum – and it's on the blockchain' (*Tech in Asia*, 26 July 2018) <<https://www.techinasia.com/mvl-tada-sg-launch>> accessed 06 August 2018.

⁴⁵⁵ Jack Ellis, 'Another ride-hailing app enters Singapore's post-Uber vacuum – and it's on the blockchain' (*Tech in Asia*, 26 July 2018) <<https://www.techinasia.com/mvl-tada-sg-launch>> accessed 06 August 2018.

⁴⁵⁶ <https://www.helbizcoin.io/>.

⁴⁵⁷ Ian Kar & Joon Ian Wong, 'Airbnb just acquired a team of bitcoin and blockchain experts' (Quartz 12 April 2016), <https://qz.com/657246/airbnb-just-acquired-a-team-of-bitcoin-and-blockchain-experts/> (accessed 29 August 2018).

⁴⁵⁸ <https://nest.beetoken.com/>.

In 2016, The Third Industrial Revolution Study suggested that Luxembourg would establish itself as a global leader in blockchain technology.⁴⁵⁹ To date, a few steps have been taken in that direction such as blockchain research at the University of Luxembourg or innovative industry projects such as FundsDLT.⁴⁶⁰ Nonetheless, **Luxembourg is not yet on the map of jurisdictions to watch in relation to this technology.** The sharing economy could be an interesting sector to experiment with the technology and build sufficient knowledge and action about the technology in the Grand Duchy. For instance, Luxembourg could experiment with blockchain technology to facilitate sharing in relation to smart energy grids, an area where much innovation and experimentation are already underway.⁴⁶¹

POLICY RECOMMENDATION 10: Observing evolutions of blockchain technologies with a pilot project in the sharing economy.

Given the potentially disruptive impact of blockchain technology on many technologies and sectors, Luxembourg should take the necessary steps – such as the **creation of a task force** – to observe evolutions in this domain and evaluate how related developments may impact Luxembourg. As a way to experiment with this technology, **a pilot project in the domain of the sharing economy could be envisaged.**

⁴⁵⁹ See, by way of example, The TIR Consulting Group, The 3rd Industrial Revolution Strategy for the Grand Duchy of Luxembourg (14 November 2016), page 292.

⁴⁶⁰ <https://www.fundsdlit.net/>.

⁴⁶¹ See, by way of example: <https://www.siemens.com/innovation/de/home/pictures-of-the-future/energie-und-effizienz/smart-grids-und-energiespeicher-mikrogrid-in-brooklyn.html>.

CHAPTER 5: Defining policy and regulatory options and recommendations

This Chapter summarises the various options available to policymakers in respect of the sharing economy. The aim is to describe how Luxembourg can develop its sharing economy sector (both from a demand and supply side), and how the potential challenges can be addressed. All our recommendations are devised to either strengthen the business and regulatory environment or to limit the negative impact of potential challenges, as shown in the table below.

Table 2: Links between sharing economy opportunities, risks and challenges, and policy recommendations

Opportunities, risks and challenges		Policy recommendations	Action (6 months)	Action (12 months)
Creating a favourable business and regulatory environment		POLICY RECOMMENDATION 1: Remove the current lack of legal certainty in relation to sharing economy activities. POLICY RECOMMENDATION 2: Choosing the right form of regulation.	Draft guidance notes on the application of existing legal frameworks for sharing economy providers in the various sectors impacted (in priority accommodation and mobility)	Centralise sharing economy matters in a dedicated department within an existing organisation. Create financial support for sharing economy businesses (e.g. grant scheme) or financial incentives (e.g. tax scheme for investment in risk capital revised for crowdfunding, introduction of a reward for ride sharing, etc.)
Addressing the main sharing economy challenges	- The Sharing Economy and the GDPR	POLICY RECOMMENDATION 3: Extending GDPR provisions on the right to data portability to user reviews in the sharing economy.		Engage in discussions at EU level where appropriate.
	- Consumer protection and Dispute Resolution Mechanisms	POLICY RECOMMENDATION 4: Providing clear guidance for sharing economy providers and consumers as regards platform rights and responsibilities. POLICY RECOMMENDATION 5: Monitoring of sharing economy developments.	Clarify the applications of existing legal rights and obligations under the <i>code de la consommation</i> .	Consider the need to revise elements of the current legal framework under the <i>code de la consommation</i> .
	- The Sharing Economy and Taxation	POLICY RECOMMENDATION 6: Improving information and compliance to tax obligations in relation to the sharing economy.	Draft guidance on the application of the current legal framework on direct and indirect taxation to sharing economy transactions.	Consider the need for legislative reform.
	- The Sharing Economy and the	POLICY RECOMMENDATION 7: Setting market access	Consult with traditional economy sectors, consumer	Define thresholds and set regulatory requirements that are

Traditional Economy	requirements proportionate to the size and risks generated by the sharing economy.	organisations and other relevant stakeholders (including SE platforms) on the definition of thresholds for peer providers acting in a personal capacity.	proportionate to the risks and size of the sharing economy activity.
	POLICY RECOMMENDATION 8: Promoting sustainable forms of sharing in the accommodation sector.	Introduce time limits during which accommodation can be made available on sharing economy platforms.	Seek dialogue with platforms to ensure the automated compliance with time limits and possibly also fiscal duties.
- Employment Relations	POLICY RECOMMENDATION 9: Relaxing requirements for sharing economy participants ('peers') below a certain threshold.	Consider introducing thresholds when a person acts as a peer and when they act as a professional.	Monitor related developments in the context of a broader transformation of work.
- The Potential Impact of Blockchain Technology	POLICY RECOMMENDATION 10: Observing the evolution of blockchain technologies with a pilot project in the sharing economy.	Observe developments in this domain.	Consider the creation of a pilot project, such as of cooperatives enabled through the technology.

I. Settling a favourable business and regulatory environment

In Luxembourg the sharing economy is regulated by the legislation applicable to the conventional sector. The sharing economy has not been included in the national framework and, contrary to some European countries⁴⁶², there are no definitions for sharing economy activities in the national legislation (i.e. no definition for car sharing, ride sharing, crowdfunding).

The presence of definitions for sharing economy activities in the national legislation has been acknowledged as favourable to the development of the sharing economy as it gives legal clarity as regards the rights and obligations of platforms and providers.

At the same time, the differentiation between peer and professional provider is crucial to determine which regulations apply to which type of provider and helps setting more flexible rules for peers. In Europe, this has been done through the set of thresholds above which an activity is deemed to be professional: the level of income retrieved from the activity, level of investment (e.g. in Austria, France, Germany, Greece, Malta, Portugal for crowdfunding), the type of asset rented out (e.g. in Flanders for short-term rentals).

The clarity of the legal framework is also linked with the capacity of public administration to support the development of the sharing economy. This can be done either through the simplification of administrative procedures for sharing economy businesses and/or start-ups, the provision of information and guidance regarding sharing economy activities, or the provision of support services, as we outline in the study.

⁴⁶² Denmark, France, Estonia and Lithuania have definitions for car sharing and ride sharing in the Transport Code. 11 EU Member States (Austria, Belgium, Greece, Spain, Finland, France, Italy, Lithuania, the Netherlands, Portugal, the United Kingdom).

POLICY RECOMMENDATION 1: Providing a clear legal framework for sharing economy activities.

It is recommended that Luxembourg provides a clear framework for sharing economy activities, for instance in including the sharing economy in Luxembourg Law (see the examples of Denmark, Estonia, France, Lithuania, or Greece). It is also recommended that Luxembourg sets clear (quantitative) thresholds to distinguish between peers and professionals.

Public authorities should provide targeted guidance, especially on taxation and national employment rules, to sharing economy platforms and providers. A dedicated public body to oversee the sharing economy (within an existing innovation institution, Chamber of Commerce, or other appropriate organisation for instance) could help centralise the provision of information and guidance, including the creation of a one-stop shop.

In addition, business support services should be targeted to the needs of sharing economy businesses. Support can be non-financial, e.g. the provision of information and guidance, but also financial, for instance specific grant schemes for sharing economy platforms as in the United Kingdom. This includes the provision of financial incentives for the adoption of sharing economy practices that are strong enough to trigger a change in individual behaviour. In Luxembourg, one possibility could be to revise the tax scheme for investment in risk capital to redirect individuals' savings towards crowdfunding. Another tax incentive to foster the adoption of ride sharing for daily commuting would be to integrate a reward for ride sharing, following the Belgian example.

The regulation of online platforms and their environment can be done through a mix of regulatory and non-regulatory approaches. Because the setting of legislative obligations can appear burdensome for digital business models, the European Commission has encouraged platforms to implement self-regulatory mechanisms (terms and conditions, online and offline standards of behaviour) but also to cooperate to adopt codes of practices or sectoral agreement. It is essential to recall that the specificity of technology is de facto to self-regulate using other technological means, as shown by the RegTech trend. Co-regulation, which refers to the process whereby a legislative act entrusts the attainment of objectives (defined in law) to other parties, which can include economic operators, social partners, non-governmental organisations, or associations, can be envisaged here as an alternative. Multi-stakeholder consultations involving representatives from the industry, local governments have been advised by the Third Industrial Revolution Strategy study.

POLICY RECOMMENDATION 2: Choosing the right form of regulation.

We encourage the Luxembourg government to consider what the right scale of regulation is whenever adopting a specific policy and we incorporate related considerations in our recommendations below. Where regulation is adopted, the **right form of regulation** must be carefully chosen. This includes a consideration for co-regulatory solutions that embrace the multi-stakeholder consultations recommended by the Third Industrial Revolution Study and the role of technology as a regulatory tool, an area that we recommend that the Luxembourg government observe more generally.

Beyond this, we also recommend that the Luxembourg Ministry of the Economy encourage sustainable sharing practices in adopting measures designed further the **offer** of such solutions. Sustainable sharing can also be furthered where the

Luxembourg government **leads by example** in relying on sharing solutions whenever possible.

II. Answering to the main sharing economy challenges

A. The sharing economy and the GDPR

The emergence of the sharing economy is intrinsically linked with the large quantities of data that are now collected as well as innovative means of storing and processing such data. While these transformations have more broadly enabled the emergence of a data economy with much potential for the European Union's Single Digital Market, they also raise the question of the adequate treatment of **personal data** collected and processed in the sharing economy context. The General Data Protection Regulation has various implications and generates tension points regarding the sharing economy, notably as regards **the right to data portability and its absence in connection with user reviews**. To address the negative consequences of this absence, we recommend that the Luxembourg government addresses this issue at EU level to determine whether legislative intervention is required. Alternatively, we suggest that Luxembourg encourages alternative technical solutions that further this objective, also at EU level.

POLICY RECOMMENDATION 3: Extending GDPR's provisions on the right to data portability to user reviews in the sharing economy.

The Luxembourg government should take appropriate steps to **evaluate the necessity of an extension of the right to data portability to online reviews** (and other reputational data). This is a policy initiative that should be taken **at EU level**, in coordination with the other EU Member States. It likely **requires legal intervention** in the form of a new EU legal framework or the revision of the GDPR. In addition, technical solutions addressing this limitation should be explored.

B. Consumer protection and dispute resolution

As evidenced by a 2017 European Commission study on consumer issues in the sharing economy⁴⁶³, the emergence and development of online platforms can have detrimental effects on consumers. Indeed the application of these existing legal frameworks is prone to generate **unintended effects** in the sharing economy, defeating the original rationale of protecting the weaker party. We recommend that Luxembourg **monitor** such developments and engage in related debates at EU level. We further encourage the Luxembourg government to **make information available online for users of sharing economy services to consult, and to consider compelling platforms to do the same**.

Furthermore, the spread of online platforms has provoked a change **in the nature of dispute resolution mechanisms**. Sharing economy platforms indeed often make use of their own online dispute resolution mechanisms, which may endanger consumer protection. It is thus suggested that the Luxembourg government should **monitor** related developments and **inform consumers about their rights in such scenarios**.

⁴⁶³ European Commission (DG JUST) *Exploratory study of consumer issues on online peer-to-peer platform markets* (2017).

POLICY RECOMMENDATION 4: Providing clear guidance to sharing economy providers and consumers as regards platforms' rights and responsibilities.

In light of the **lack of legal clarity** as to which entity in a triangular sharing economy platform is subject to the obligations arising under Luxembourg consumer protection law, we recommend that the Luxembourg government guides consumers by **making online information available** detailing who the likely responsible entity would be in different scenarios. This will allow parties to better account for existing legal obligations and the increase in legal certainty will enhance trust in sharing economy models. This could be carried out at national level and would not require legislative action. Further, guidance offering more concrete criteria to participants in the sharing economy should be considered, as well as **updating legislation** to create specific legally binding criteria.

Alternatively, **platforms could be incentivised to fulfil this role themselves as they have been under French law, and as the EU 'New Deal for Consumers' has suggested**. Where clear guidance is available, platforms could indicate to users whether they act as a trader or consumer under the Luxembourg *code de la consommation* and what related rights and obligations are under EU law. This could be done through legislative reform at national level or in supporting related proposals at EU level. However, considering the prevailing legal uncertainty at this moment in time, informal guidance by Luxembourg authorities should precede this step.

POLICY RECOMMENDATION 5: Monitoring of developments in online dispute resolution.

We recommend that the Luxembourg government **monitors developments in online dispute resolution, particularly where carried out by platforms themselves** and, if necessary, contributes to the required legal intervention at **EU level**. In the meantime, **information should be provided to consumers** (online), educating them about their rights in relation to such mechanisms (e.g. as consumers they cannot be deprived of their right to explore conventional judicial avenues). This could be done in the same place where general information about consumer protection law is shared online. This can be realised through the same online information campaigns that we highlighted in Recommendation 4 above and also further below.

C. The sharing economy and taxation

There remain uncertainties regarding the **fiscal implications of such transactions** both in relation to direct and indirect taxation. Again, we encourage the Luxembourg authorities to make **information regarding fiscal obligations available online** or to consider cooperating with platforms so that they can **communicate related information directly to users**. This can be done at national level and does not presuppose legislative intervention, as shown by the example of Airbnb and some EU cities, and the platforms Uber and Taxify in Estonia (see section IV. F). Some elements, such as whether swaps are subject to VAT, should however be addressed at **EU level** and may require legislative action.

POLICY RECOMMENDATION 6: Improving information and compliance to tax obligations in relation to the sharing economy.

In order to increase legal certainty and trust in the sharing economy, citizens need **further information** concerning their respective fiscal obligations and applicable tax rates, particularly under the *Loi du 12 février 1979 concernant la taxe sur la valeur*

ajoutée. This information can be provided at national level and does not involve legislative intervention. Related information can either be published by the relevant public authorities or platforms could be incentivised to inform users about their respective fiscal obligations.

Where there remains **uncertainty as regards legal qualification**, such as whether swaps are subject to VAT, the Luxembourg authorities should issue guidance on how VAT law applies to their interactions. Ideally, this would be done at EU level to avoid internal market fragmentation but Luxembourg could also choose to start by clarifying these issues in relation to the *Loi du 12 février 1979 concernant la taxe sur la valeur ajoutée*.

Further, the current position that **cost-sharing ventures** should be subject to the same fiscal treatment as commercial projects may be a factor hindering the development of sustainable sharing solutions.

Further, Luxembourg could explore **fiscal relief measures to promote instances of genuine sharing**, where underused excess capacity, for instance in the accommodation sector, is concerned. European State aid rules must however be accounted for in the design of such measures. Particularly, Luxembourg could qualify cost-sharing ventures (such as carpooling) to not constitute profit-making from a VAT perspective.

In addition, the use of **technological means to ensure fiscal compliance** in the sharing economy, in line with the Estonian model, should be explored.

D. The sharing economy and the traditional economy

The sharing economy has important implications for the traditional economy in the concerned sectors, e.g. the taxi industry, hotels, retailers, etc. **Regulation, especially disproportionate market access requirements**, can be used as a means of limiting or encouraging sharing practices and many public authorities in the EU have indeed had recourse to that option.

When focusing on the accommodation sector, there remain uncertainties regarding how existing regulation applies to sharing models in the housing sector and flat or house sharing is discouraged by an outdated legal framework. As a consequence, it may be opportune for Luxembourg to promote genuine forms of sharing by **providing information** about related legal rights and obligations to citizens and to **update outdated legal requirements to promote some forms of sharing**.

POLICY RECOMMENDATION 7: Setting market access requirements proportionate to the size and risks generated by the sharing economy.

Market access requirements for collaborative economy providers should be proportionate to the size and risks generated by the sharing economy activity in order not to unduly restrict its development. Because of these specificities of sharing economy business models, some regulations applying to the traditional economy aimed at guaranteeing fair prices, quality of the service, personal safety, or fight against information asymmetry, can therefore be adapted. However, there should be no exemption when the risks for consumers are equal in the sharing economy and the traditional sector, for instance, minimum health and safety and information requirements.

POLICY RECOMMENDATION 8: Promoting sustainable forms of sharing in the accommodation sector.

In order to encourage a sustainable variant of sharing in the accommodation sector, **more information** regarding the related legal rights and obligations must be made available to increase legal certainty and trust. This can be done by the relevant **national authorities or through the involvement of platforms**, which can carry out this information-supplying role on a case-by-case basis.

In particular, there is uncertainty as to whether **registration duties** under Article 18 of the Law of 17 July 1960 apply to sharing economy transactions. We recommend that the Luxembourg government specifies that point. It could decide to either create a *de minimis* threshold or use existing law as the basis for registration duties coupled with time limits to encourage the sustainable development of sharing practices in the accommodation sector. **Legal certainty should also be removed regarding the applicability of the *taxe de séjour* in municipalities that levy it.**

There are two further concrete steps the Luxembourg government could adopt in relation to the promotion of sustainable forms of sharing in the accommodation sector. First, conventional **long-term flat or home sharing** necessitates appropriate legal recognition in Luxembourg, which is not currently the case. This could be achieved through a reform of the *Loi du 21 septembre 2006 sur le bail à usage d'habitation et modifiant certaines dispositions du Code civil*.

In addition, the government could consider devising time limits for **short-term home sharing**, for example by allowing residents to sublet their place for a short period of time, such as when they are away on holiday.

E. Employment relations

The reliance on platforms to intermediate work forms part of a broader transformation of work and presents risks as well as benefits. Under Luxembourg law, some form of platform-mediated work will be classified as an **employment relationship** and trigger the application of the related legal regime. In other circumstances, self-employed users will be required to obtain an **autorisation d'établissement**. This requirement may discourage the emergence of a vibrant sharing economy involving peers. If the Luxembourg government wishes to encourage some forms of sharing **relaxing these requirements** in some circumstances would be a policy option.

POLICY RECOMMENDATION 9: Relaxing or facilitating requirements for platform workers below a certain threshold.

In order to promote a sustainable use of platforms as intermediaries for work, the Luxembourg government could adopt a number of options. It could **provide thresholds as to when a person merely acts as a peer on an occasional basis and relax some of the requirements related to *autorisations d'établissement*** under the *Loi du 2 septembre 2011 réglementant l'accès aux professions d'artisan, de commerçant, d'industriel ainsi qu'à certaines professions libérales*.

Further, the establishment of **platform-based worker cooperatives** could be explored in a pilot project. Blockchain technology, examined just below, could provide some of the necessary technical underpinnings for such a project.

F. The potential impact of blockchain technology

Blockchain technology may have a disruptive impact on current platform-based sharing economy business models. We recommend that the Luxembourg government **monitors the technical developments** in this field and identify their likely **impact on the Grand Duchy**. A **pilot project at the intersection of blockchain and the sharing economy** could be a useful step in that endeavour.

POLICY RECOMMENDATION 10: Observing evolutions of blockchain technologies with a pilot project in the sharing economy.

Given the potentially disruptive impact of blockchain technology on many technologies and sectors, Luxembourg should take the necessary steps – such as the **creation of a task force** – to observe evolutions in this domain and evaluate how related developments may impact Luxembourg. As a way to experiment with this technology, **a pilot project in the domain of the sharing economy could be envisaged.**