Report from the EU H2020 Research Project Ps2Share:
Participation, Privacy, and Power in the Sharing Economy

European Perspectives on Power in the Sharing Economy

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1. Introduction: Power in the Sharing Economy

This report, **'European Perspectives on Power in the Sharing Economy**', forms one element of a European Union Horizon 2020 Research Project on the sharing economy: Ps2Share 'Participation, Privacy, and Power in the Sharing Economy'. The study is undertaken within the scope of the European Union's Horizon 2020 research and innovation programme, funded under grant agreement No. 732117 and with the objective (ICT-35) of "Enabling responsible ICT-related research and innovation".

This project aims to foster better awareness of the consequences which the sharing economy has on the way people behave, think, interact, and socialize across Europe. Our over-arching objective is to identify key challenges of the sharing economy and improve Europe's digital services through providing recommendations to Europe's institutions. We focus on topics of participation, privacy, and power in the sharing economy.

The project is comprised of four primary tasks: A series of three reviews of the existing literature on the sharing economy, an analysis of platforms operating within Europe, a series of focus groups among 'millennials' within 5 European countries, and a representative survey of more than 6000 inhabitants across 12 European countries. The results of the representative survey are reported in three separate reports: 'European Perspectives on Participation in the Sharing Economy', 'European Perspectives on Privacy in the Sharing Economy', and 'European Perspectives on Power in the Sharing Economy'. Please refer to the other reports for more findings and to the attached Appendix for in-depth methodological and sociodemographic information.

Within the survey and in the following report, we addressed various items towards four distinct sub-categories of Europeans: Consumers, Providers, Aware Non-Users, and Non-Aware Non-Users. To present a more fine-grained overview of the perceived power-dynamics, we also provide deeper insights into the results on a cross-country level, as well as analyzing demographic and platform differences.

The structure of this report roughly follows a corresponding literature review undertaken as part of this project, 'Power in the Sharing Economy' (Newlands, Lutz, & Fieseler, 2017). As such, much of the grounding of the report's research context and motivations is to be found there.

The first section of the report focuses on the Peer-to-Peer Relationships which form the foundation of the sharing economy. Aspects covered in this section include emotional labor, perceived interpersonal treatment, and feedback systems. The second section of the report focuses on the Peer-to-Platform Relationships. This section addresses the role of the sharing platforms in establishing and maintaining power asymmetries, covering aspects such as dispute resolution mechanisms, terms and conditions, pricing, algorithmic control, and collective action. The final section provides a more macro-approach to power dynamics, focusing on the Platform-to-Society Relationships. This includes elements such as regulation and platform narratives.

Research Highlights

- Users of the sharing economy report, on average, **moderate to high levels** of expressing positive emotions and moderate levels of suppressing negative emotions. However, **consumers** score higher for emotional labor than providers.

- Consumers perceive themselves as receiving **better interpersonal treatment** than providers. Moreover, **northern European** users feel the least respected on an interpersonal basis, whereas southern Europeans feel the most respected.

- The majority of both providers and consumers **do not want** the rating/review systems to be removed.

- Sharing economy users have **low expectations** that platforms would take action to correct their concerns. **Northern Europeans** have the lowest expectations of platforms as problem solvers, whereas southern Europeans are the most optimistic.

- If problems arise during a sharing experience, impacting either users or non-users, providers assign the **most responsibility** to themselves for finding a resolution.

- Uber is perceived to have the **least accessible terms and conditions**. Moreover, almost a **third of users** are hesitant to question a sharing platform's policies.

- **Less than half** of all users think that sharing platforms' pricing policies are fair. European users also agree that platforms **take too much money** from each transaction.

- Almost a third of all providers feel pressured to provide **more often** than they would like. Among platforms, Uber drivers feel the **most pressure to provide**.

- A **significant majority of consumers** think they should be allowed to choose a provider based on their own criteria. Providers also think there should be **no consequences for rejecting a transaction**.

- More than a third of all providers **use online communities to connect** with other providers.

- Non-users are **more supportive of provider unionization** than users. **Dutch** respondents oppose unionization most strongly; **British** respondents are the most supportive.

- A large majority of respondents think that sharing platforms should **follow the same rules and regulations as established companies**.

- Respondents see platforms more as **traditional transportation and hospitality services** than as software companies.

- Respondents want some regulation of the sharing economy but do not opt for a complete ban. A middle-ground seems desirable for most.

2. Emotional Labor in the Sharing Economy

As a frequently occurring phenomenon within traditionally service-oriented industries, emotional labor describes the conscious self-regulation of emotions and feelings to create a publicly observable self-presentation which matches organizational norms or requirements (Grandey, 2000; Hochschild, 1983). Indeed, a critical issue which is gaining more attention is the role of 'emotional labor' among providers in the sharing economy (Glöss, McGregor, & Brown, 2016; Lee, Kusbit, Metsky, & Dabbish, 2015; Raval & Dourish, 2016; Rosenblat & Stark, 2016). However, such research to date has focused largely on qualitative and U.S.-based research. As such, we were interested in assessing the prevalence of emotional labor among the European user-base of the sharing economy.

Only very recently has research begun to look at the bilateral nature of emotional labor, as occurring among both providers and consumers (Lutz, Newlands, & Fieseler, 2018). In line with this theoretical advancement, we addressed our survey items at both providers AND consumers of sharing services, to better reflect the potentially dual-nature of behavioral regulation and emotional labor.

Specifically, we measured the presence of emotional labor with four questions presented to both providers and consumers with the same wording. Two questions describe the expression of positive emotions during a sharing transaction (*Expressive Sub-Dimension*) and two questions describe the suppression of negative emotions during a sharing transaction (*Suppressive Sub-Dimension*). The table below shows the question wording.

Question Number	**Wording** Prompt: When you interact with consumers/providers, how often do you do the following?	**Sub-Dimension**	**Means (Standard Deviation)**
1	*Express feelings of sympathy.*	Expressive	3.18 (1.01)
2	*Express friendly emotions*	Expressive	3.45 (1.01)
3	*Hide your disapproval about something someone has done.*	Suppressive	2.78 (0.99)
4	*Hide your annoyance about something someone has done.*	Suppressive	2.80 (1.01)
Response options: 1-never, 2-sometimes, 3-about half the time, 4-most of the time, 5-always			

At a high-level, our data confirms that emotional labor is prevalent among participants in the sharing economy, with the expressive dimension being more pronounced than the suppressive dimension. Within the expressive dimension, expressing friendly emotions is a widely seen form, with 83% of users usually expressing friendly emotions during a sharing transaction. Expressing feelings of sympathy is slightly less popular among participants. Suppressive forms of emotional labor are, while less common, still relatively prevalent, with average scores of 2.78 (SD = 0.99) and 2.80 (SD = 1.01) respectively for the two questions asked. More specifically, 63.2% of users in our sample declare that they usually hide their annoyance about something during a sharing

transaction, while 62.7% of users usually hide their disapproval about something during a sharing transaction.

83.6%
of users usually **express* friendly emotions** during a sharing transaction.

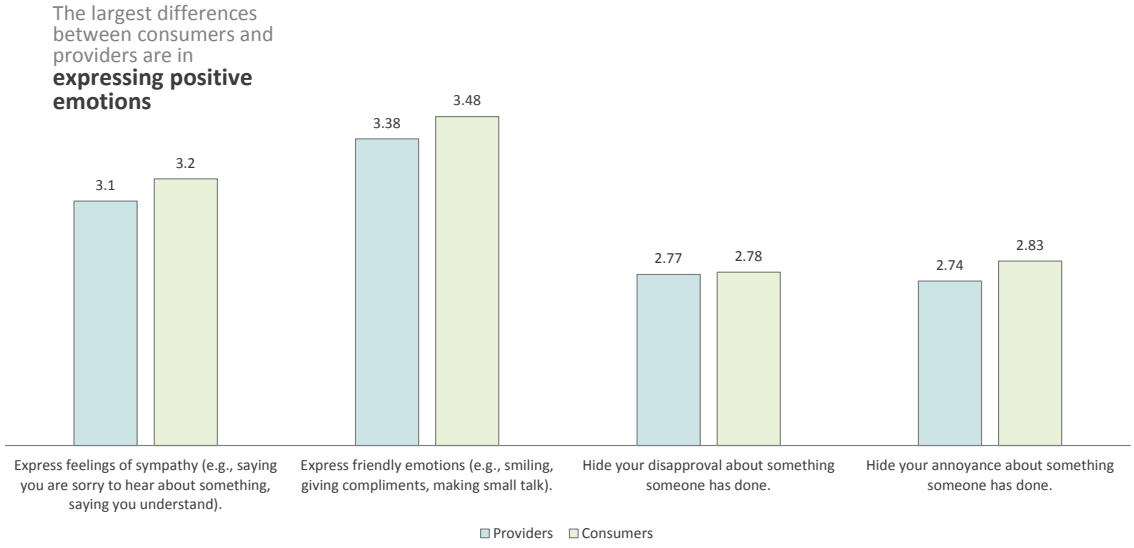
63.2%
of users usually **hide* their annoyance about** something during a sharing transaction.

62.7%
of users usually **hide* their disapproval about** something during a sharing transaction.

**Percentage of providers/consumers who selected "About half the time", "Most of the time", or "Always"*

As will be described in more detail below, one of the more interesting and unexpected findings in our results is that consumers seem to perform more emotional labor than providers, in a reverse of the expected situation in traditional service contexts. More in line with traditional views of emotional labor, however, is our finding that women perform more emotional labor than men during sharing economy transactions. With regard to cross-country differences, there are also strong differences on the expressive dimension, with southern Europeans performing emotional labor more frequently than northern Europeans.

Consumers perform more emotional labor than providers.



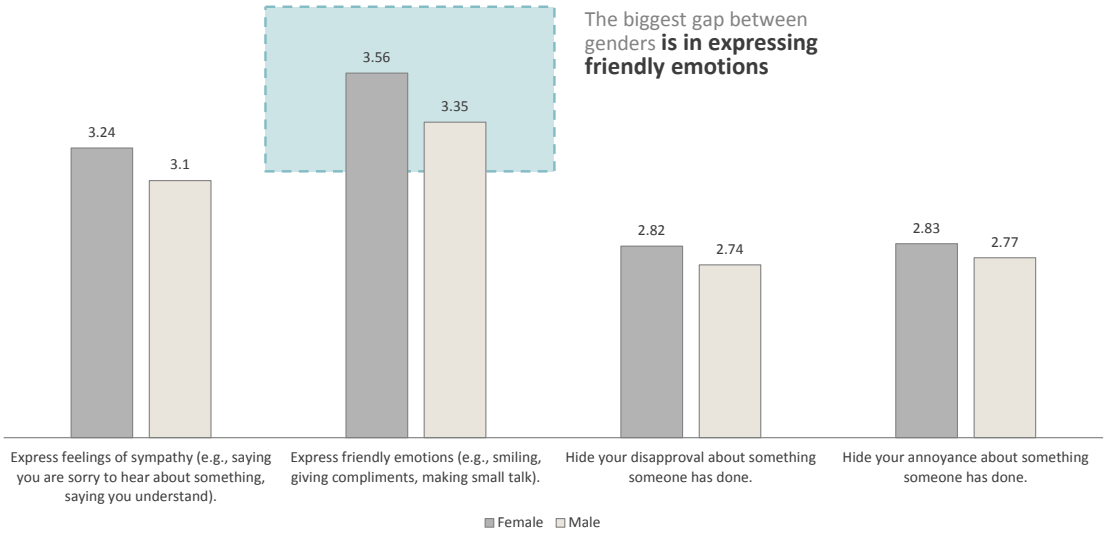
N = 1699 Consumers and Providers: 556 Providers and 1143 Consumers; Arithmetic means for each item are displayed. 1-5 scale with 1-never, 2-sometimes, 3-about half the time, 4-most of the time, 5-always

Figure 1: Emotional Labor by use-modality; total user sample (N=1699)

When differentiating by use-modality, we find minor differences. In general and in line with the overall results, friendly emotions are expressed the most often, followed by sympathetic feelings. However, the differentiation indicates that, on every dimension, consumers report performing slightly more emotional labor than providers. While the differences are not statistically significant,[1] the high values for consumers indicate that not only providers but also consumers perform emotional labor in the sharing economy.

The largest differences between consumers and providers are, interestingly, on the expressive sub-dimension, suggestive of a reality where consumers put on more of a 'show' to impress their providers. Higher values among consumers, in any case, suggest that the social aspect of the sharing economy could be more of a burden on consumers than expected, since they must negotiate their simultaneous existence as a both peer and as a customer.

Women perform more emotional labor than men.



N = 1699 Consumers and Providers: 556 Providers and 1143 Consumers; Arithmetic means for each item are displayed. 1-5 scale with 1-never, 2-sometimes, 3-about half the time, 4-most of the time, 5-always

Figure 2: Emotional Labor by gender; total user sample (N=1699)

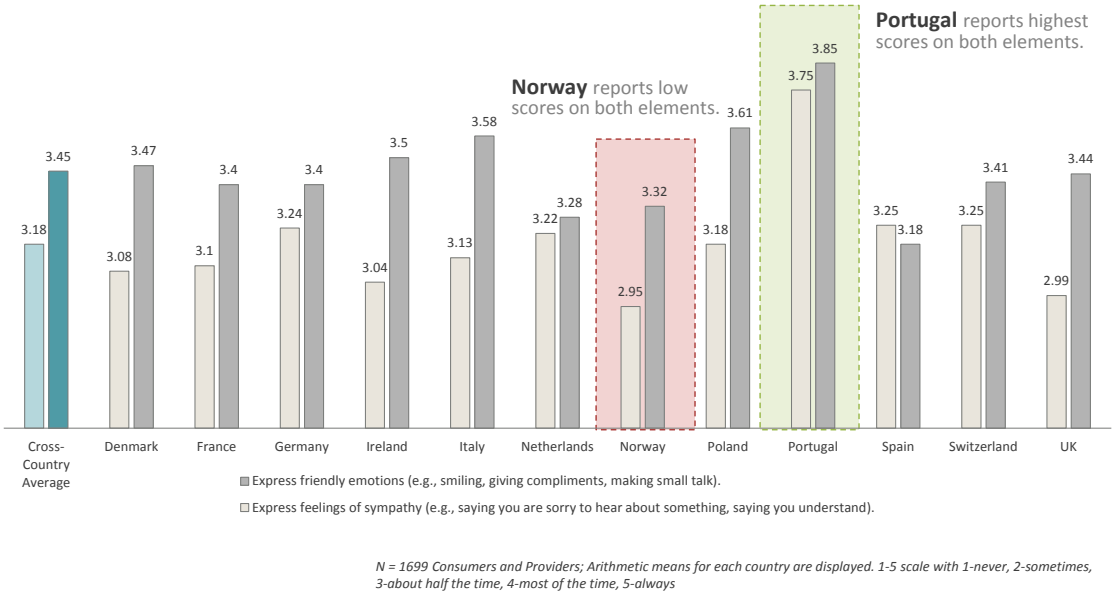
Emotional labor in established service professions tends to be gendered, with women being particularly affected by specific emotional work requirements (Götz, 2013). Our results support this trend, since women report substantially higher emotional labor values than men on every dimension. This is particularly the case for the expressive dimension. Here, the differences be-

[1] The t-test for mean differences between providers and consumers is significant at the 5%-level for mean differences greater than 0.10 (equal variances not assumed).

tween women and men are statistically significant at the 1% level for expressing feelings of sympathy and at the 0.1% level for expressing friendly emotions. However, for the suppressive dimension, we did not find significant gender differences.

Given the broad coverage within news media about the obstacles facing women in the sharing economy, the gendered nature of the sharing economy is an aspect which demands further attention in empirical studies. While perhaps less obvious than other obstacles, such as the fear of harassment, the evidently greater burden on women in the sharing economy to perform emotional regulation and act in a socially desirable fashion, acts as a further obstacle for women to participate in an open and inclusive environment. More attention should therefore be directed at the entire experience of women in the sharing economy, beyond looking merely at extreme scenarios.

Portuguese users perform the most expressive emotional labor; Norwegian users perform the least.



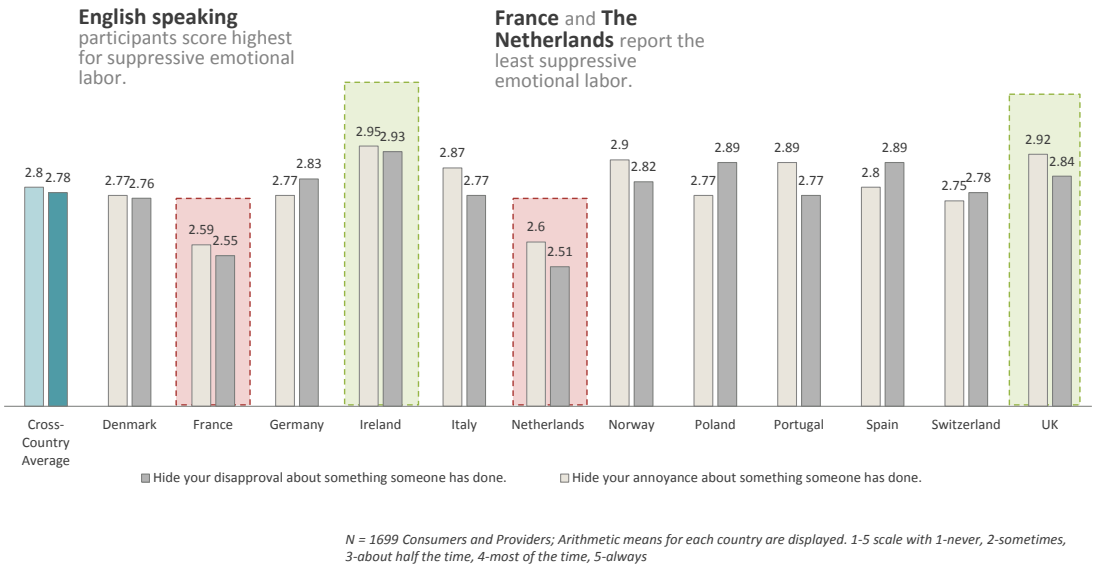
N = 1699 Consumers and Providers; Arithmetic means for each country are displayed. 1-5 scale with 1-never, 2-sometimes, 3-about half the time, 4-most of the time, 5-always

Figure 3: *Emotional Labor: Expressive Dimension by country; total user sample (N=1699)*

We found pronounced dissimilarities on a country-by-country basis. For all four of the individual questions posed to our user-sample, the country differences are statistically significant at least at the 5%-level. For the expressive items, the differences are even more pronounced, with Portugal having the highest overall values on both items within the expressive dimension. Norwegians, on the other hand, express feelings of sympathy less often than any other country and participants in Spain express friendly emotions less often than those in other countries. While it would be tempting to posit a simple north-south divide, based on a simple comparison of Norway and Portugal, the comparatively low results for Spain and the rather average results for Denmark argues against such a simplistic divide.

An interesting aspect, however, is the gap between sub-dimensions apparent in English-speaking countries (Ireland and the UK), where users are considerably more liable to express friendly emotions than express feelings of sympathy. Since the sympathetic dimension demands a greater degree of emotional investment, as noted by the overall lower results found in every country for that item, this suggests that English-speaking individuals are more comfortable with very surface-level interactions, but uncomfortable with more invested emotional investments. By contrast, Spanish and Portuguese users, despite representing opposite ends of the spectrum, both show a closeness between the two items which might suggest less of a distinction between the two emotions.

Users do not frequently perform suppressive emotional labor.



N = 1699 Consumers and Providers; Arithmetic means for each country are displayed. 1-5 scale with 1-never, 2-sometimes, 3-about half the time, 4-most of the time, 5-always

Figure 4: Emotional Labor: Suppressive Dimension by country; total user sample (N=1699)

When looking more closely at the suppressive dimension of emotional labor, we found that different countries score differently. English-speaking countries (Ireland and the UK), for instance, have the highest values for the suppressive dimension, while they are only ranked in the middle for the expressive sub-dimension. This suggests that native English-speaking participants are more frequently engaged in maintaining politeness and courtesy in an uncomfortable situation than they are in expressing inauthentic friendliness. By contrast, the Dutch and the French report the lowest values of suppressive emotional labor and do not frequently hide their annoyance or disapproval during sharing transactions. This would suggest either that the Dutch and the French have overall more pleasant experiences, requiring less emotional suppression, or, what is more likely, that they are more inclined to complain when unhappy.

3. Interpersonal Treatment in the Sharing Economy

Not every platform or sharing modality includes human interaction. Finance sharing, for instance, is almost entirely conducted through the mediating platform. Even on certain home-sharing platforms, users can temporarily transfer usage of a home through impersonal key-exchanges or key drop boxes. However, the sharing economy remains a context demanding frequent human interaction and, for many users, the social aspect is a key motivation for their participation (Bucher et al., 2016). This element of interaction, however, is liable to be overlaid with the shadow of traditional customer service, even if providers don't operate in the sharing economy full-time. Particularly for those who share more frequently, to the extent that it has become their full time 'job', how they are treated has a significant impact on whether the sharing economy provides decent working conditions.

The question of interpersonal treatment thus arises. We wanted to know: Do providers and consumers treat each other in an acceptable manner? Do providers and consumers treat each other with respect? To create a cohesive picture of the interpersonal relationship, we determined to assess the perception of fair interpersonal treatment among both providers and consumers. We approached this aspect on a tripartite basis, assessing three separate items which were adapted for the provider and consumer contexts. The question wording and the basic results are presented below for both providers and consumers.

Question Number	**Question Wording** Prompt: Please indicate how much you agree or disagree with the following statements. Again, please refer to the sharing platform you identified earlier.	**Means (Standard Deviation)**
1	*Consumers treat me in a polite manner.*	3.68 (0.97)
2	*Consumers treat me with dignity.*	3.62 (0.96)
3	*Consumers treat me with respect.*	3.61 (1.03)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree		

Question Number	**Question Wording** Prompt: Please indicate how much you agree or disagree with the following statements. Again, please refer to the sharing platform you identified earlier.	**Means (Standard Deviation)**
1	*Providers treat me in a polite manner.*	3.92 (0.80)
2	*Providers treat me with dignity.*	3.83 (0.82)
3	*Providers treat me with respect.*	3.88 (0.81)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree		

Based on these results, participants in the sharing economy report being treated in a polite manner, with dignity, and with respect. Only a small minority of between five and ten percent strongly disagrees or somewhat disagrees with the three statements. Thus, the overall interpersonal interaction between participants in the sharing economy seems to be functioning well. This is a positive finding for conceptions of the sharing economy as both a workplace and as a social phenomenon.

However, looking more closely at the results, several interesting findings arise. Firstly, consumers perceive themselves as receiving good interpersonal treatment more readily than providers. Secondly, when differentiating by gender, we also find that women perceive themselves as receiving more respect than men. There is similarly a notable difference in perceived respect between northern and southern Europeans. These results are discussed in more detail below.

Consumers perceive themselves as receiving better treatment than providers.

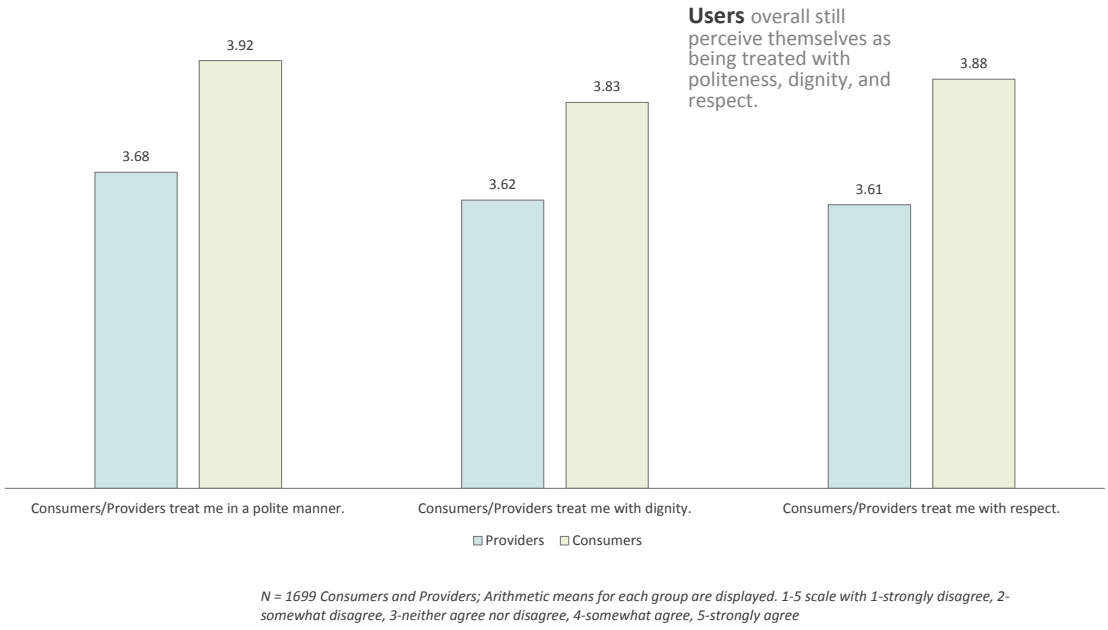


Figure 5: Interpersonal Treatment by use-modality; total user sample (N=1699)

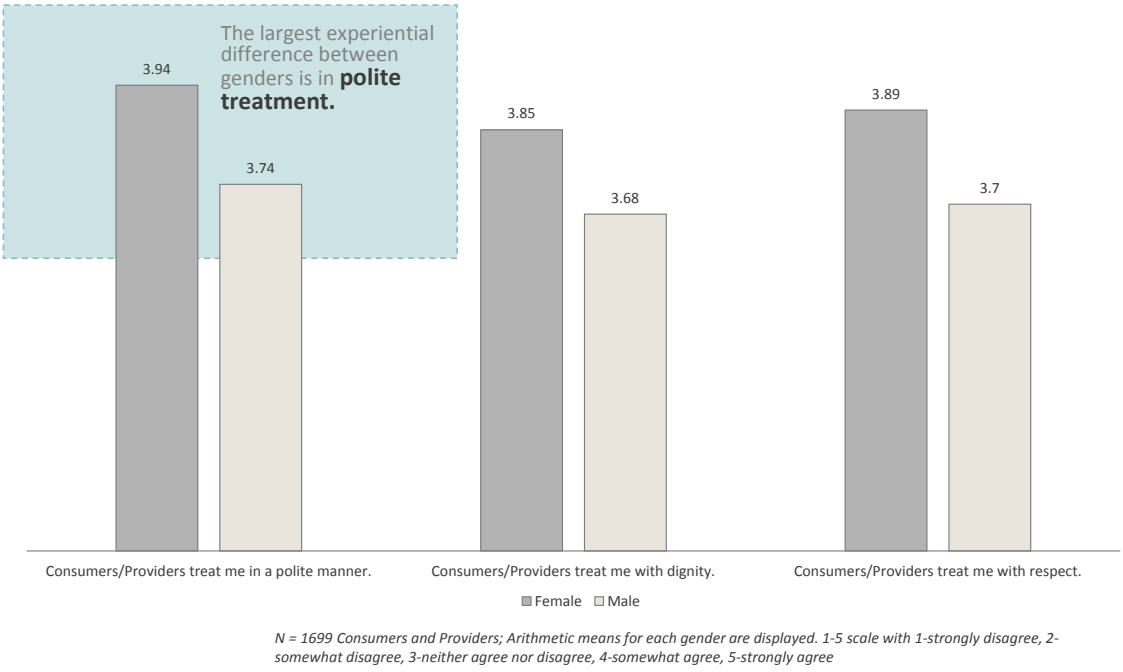
As has been found with other items which look at interpersonal relationships in the sharing economy, there are quite marked differences between consumers and providers when it comes to being treated politely, with dignity, and with respect. Overall, both providers and consumers feel well treated, with a strong trend towards agreement with the items. However, on all measures, consumers report higher scores and thus perceived higher treatment. In the context of the sharing economy as a socially-motivated experience, such respect is comprehensible as evolving out of a desire to mutually share an experience. However, in the context of the sharing economy as an economically driven market place, such respect is also comprehensible as enabling the sharing economy to continue functioning. Naturally, disrespectful or impolite treatment would be met with low ratings and/or discontinued usage. It is thus particularly promising

for the continued use of sharing services that currently, even in light of the increasingly mediated format of services, users perceive a high level of interpersonal treatment.

With such results, however, we must query the potential for a self-selection bias in that individuals who are not socially-inclined or who do not have good interpersonal skills are perhaps less likely to engage in sharing services in the first place and would prefer to work and/or consume services in a more traditional setting.

Despite the overall positivity, there is still a notable difference in perceived treatment between consumers and providers, where the difference is significant at 0.001 level for all three items, according to an independent sample t-test. The difference is most pronounced for the third item, measuring perceived respect, where providers have the lowest score of the three items. Accordingly, it is evident that European consumers still have potential for treating providers with even more respect.

Female users perceive themselves as receiving better treatment than male users.



N = 1699 Consumers and Providers; Arithmetic means for each gender are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 6: Interpersonal Treatment by gender; total user sample (N=1699)

When querying for interpersonal treatment based on gender, we found significant differences in perceived treatment at the 0.001 level for all three items, with female users reporting higher levels of treatment than male users. Thus, we can determine that there is a significantly gendered element in the sharing economy, where women perceive themselves to be treated more politely, with more dignity, and with more respect. This finding compliments our finding that women perform more emotional labor in the sharing economy, suggesting that there are still relatively strong gender-normative elements at play: Women receive better more respectful treatment but also perform more readily in a socially conforming manner. However, it should

be noted that male users dominate the provider category more heavily, in which case the perceived treatment would be accordingly lower. What was not queried was the extent to which this treatment was demanded, which could have provided further insight as to whether female users matched their treatment with higher expectations for polite, dignified, and respectful treatment.

Perceptions of respectful treatment differ between northern and southern Europe.

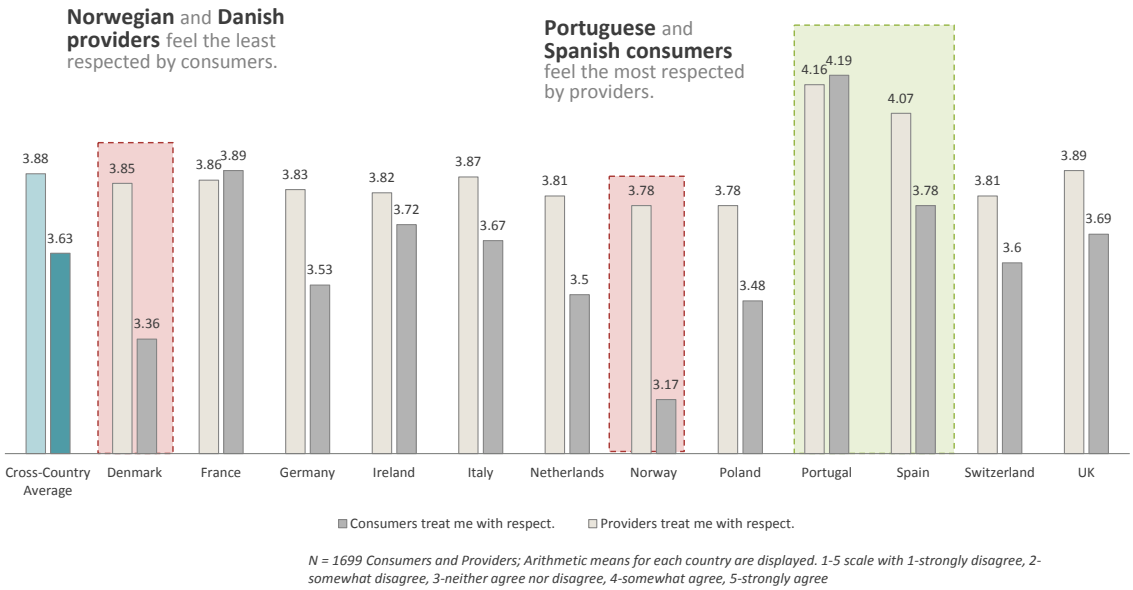


Figure 7: Respectful Treatment by country; total user sample (N=1699)

In our findings above, we demonstrated that consumers perceived themselves as being better treated than providers. To analyse this trend on a more fine-grained country level, we assessed whether this was the case in all countries by comparing the country averages for providers and consumers separately.

In an absolute sense, Spanish and Portuguese users perceived very high levels of respect in comparison to the average certain other countries such as Norway and Poland. This was particularly high among the provider sample. However, for the consumer base, other than for Spain and Portugal, the results do not show large differences across the countries. This suggests a relatively homogenous, yet positive, consumer experience in the sharing economy.

For providers the picture is very different, with countries showing significant differences on a cross-country level, particularly in a north-south direction. Generally, southern European countries – particularly Portugal and Spain – report the highest values for being treated with respect, and northern European countries report the lowest values.

The question is thus raised of whether Nordic providers are treated less well, or merely perceive themselves to be treated less well than they would desire. The otherwise positive labor climate in the Nordic region, where labor receives strong centralized and governmental protections, might suggest the latter as being the contributing factor. However, a simultaneous explanation

is provided by the cultural norms of such countries, where a service mentality is less pronounced in the Nordic region and thus perhaps service providers in the sharing economy receive less positive interactions.

With regard to within-country differences, differentiating for use modality, France and Portugal are the only countries where providers perceive themselves as equally well treated compared with consumers (the differences between providers and consumers are not significant in these countries, while they are in the other countries). Particularly in Norway and Denmark, there is a large gap between how providers feel they are treated and consumers feel they are treated. In these countries, therefore, consumers and sharing platforms could do more to ensure higher values for provider treatment.

Professionalism in the Sharing Economy

Building on our exploration into the interpersonal aspects of the sharing economy, one additional factor which we decided to query was the role of professionalization. Increasingly, certain sharing economy services have seen an overwhelming professionalization. Home-sharing, for instance, has witnessed the rise of mega-hosts who operate multiple properties simultaneously (Lee, 2016). Among ride-hailing, also, many drivers are not only driving on a full-time basis, but are also adhering to the high expectations of 'five-star service' (Lee et al., 2015; Van Doorn, 2017).

While this has evolved in a relatively bottom-up manner, led by those who share on a 'full time basis', some responsibility has to be assigned to the platforms due to their ongoing encouragement towards professionalization through marketing efforts, prescriptive advice, and the feedback system (Horton & Golden, 2015; Rosenblat & Stark, 2016). Moreover, certain platforms have actively engaged in rewarding seemingly professionalizing behaviour through the use of status rankings such as Airbnb's 'super-host' status (Schor, Fitzmaurice, Carfagna, Attwood-Charles, & Poteat, 2016).

We wanted to query, therefore, whether consumers held such an expectation of professionalism among their providers. This would point to whether the sharing economy is still seen as strongly peer-to-peer and informal or whether it is perceived as more streamlined, professionalized, and standardized. To assess consumers' expectations of professionalism, we used the following question.

Question Number	**Wording** Prompt: Please indicate how much you agree or disagree with the following statements.	**Means (Standard Deviation)**
1	*I expect a professional level of service from my providers.*	3.79 (0.89)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree		

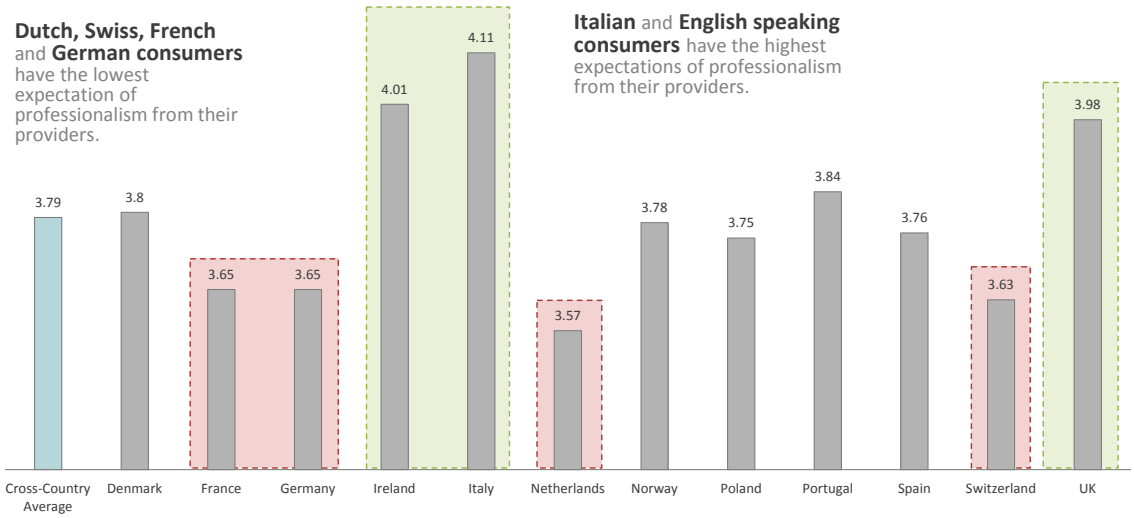
The overall results indicate that there is a strong trend towards expecting a professional level of service among consumers. Moreover, 66% of consumers outright agree that they expect a professional level of service from their providers. This finding has important implications for the future of the sharing economy and suggests that providers who want to improve their ratings should offer a professional level of service. Evidently, professionalism has become a norm rather than an exception. For consumers who are choosing to spend their money on certain services, while they may make a financial saving, it is evident therefore that they are still expecting a professional level of service. Professional service expectations correlate positively with financial benefit motives (0.12, p=0.000). Thus, consumers who are more financially motivated expect more professional levels of service from their providers or those who expect more professional levels of service might be more financially motivated.

66%

of consumers **expect* a professional level of service** from their providers.

**Percentage of providers/consumers who selected "somewhat agree" or "strongly agree"*

European consumers expect a professional level of service from their providers.

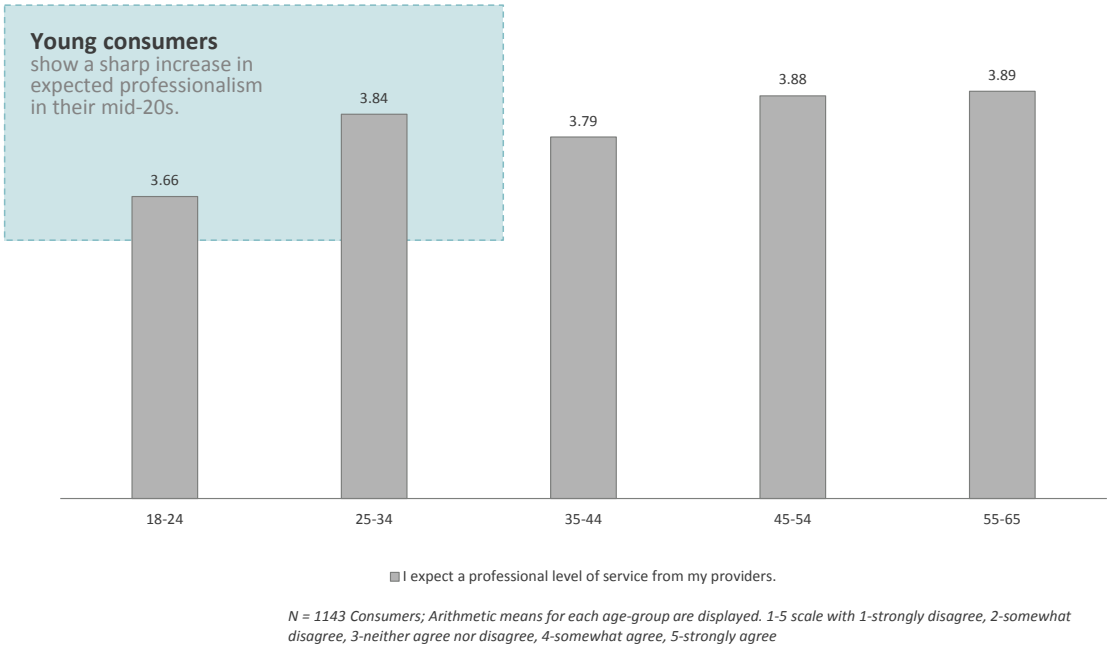


N = 1143 Consumers; Arithmetic means for each country are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

***Figure 8**: Professional Expectations by country; consumer sample (N=1143)*

Looking at the countries individually, we again find significant differences (F=3.71, p=0.000). Expectations of a professional service are considerably lower in the Netherlands, Germany, France, and Switzerland. By contrast, expectations are highest among the English-speaking countries and Italy. It is thus possible to argue for a pan-European expectation and, consequently, a pan-European trend away from viewing the sharing economy as an informal phenomenon between peers. While consumers might strive for 'authentic' experiences, they nevertheless appear to want those experiences to conform to a certain professional standard (Dredge & Gyimóthy, 2015; Lalicic & Weismayer, 2017).

Younger consumers have the lowest expectations of professionalism from providers.



N = 1143 Consumers; Arithmetic means for each age-group are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 9: Professional Expectations by age-group; consumer sample (N=1143)

We found that age is a significant predictor of service expectations (F=3.712, p=0.000), with younger consumers being markedly less demanding than older consumers. We also noticed a sharp increase in the expected professionalism of providers during the mid-20s age range, which could be attributed to different sharing motivations and modalities among different age groups, with younger users being more experimental and open-minded, and adventure-focused. Indeed, the correlations between age and social motives, hedonic motives, and social responsibility motives are significant at 0.000 level and negative. Thus, younger users might expect a somewhat less professionalized service experience.

The sharp increase to the 25-34 age bracket, which is then broadly in line with other age groups level of expectations, could thus be explained not as the 25-34 age bracket being particularly higher, but that the 18-24 age bracket is particularly low in its expectations. The arrival of a steady income, perhaps, or a professional position in the mid-20s could thus alter the expectations of consumers towards professional expectations.

4. The Rating/Review Systems in the Sharing Economy

The feedback systems employed by sharing economy platforms, usually a bilateral rating and/or review mechanism, are essential in building trust between strangers. Across the digital economy, online commerce platforms are employing reputation based feedback systems which enable actors to provide information about past transactions (Mayzlin, 2016). However, beyond merely acting as an instrument of ensuring trust, reputation mechanisms also act as a factor in determining the success of a transaction. Providers with bad feedback can face negative consequences, up to and including rejection from the platform (Rosenblat & Stark, 2016). The feedback systems, moreover, can act as instruments in imposing discipline and economic control over user behavior, ensuring that behavior aligns to consumer or provider expectations (Cockayne, 2016; Van Doorn, 2017).

Accordingly, while being essential for the operation of the platform, rating/review systems have been marked as a divisive element in the user experience, open to both manipulation and bias on behalf of both providers and consumers (Fradkin, Grewal, Holtz, & Pearson, 2015; Lee et al., 2015). The fairness of ratings, in particular, has been raised in the literature to date as a crucial obstacle for continued participation in the sharing economy, as unfair ratings can hinder or event prevent individuals from taking part.

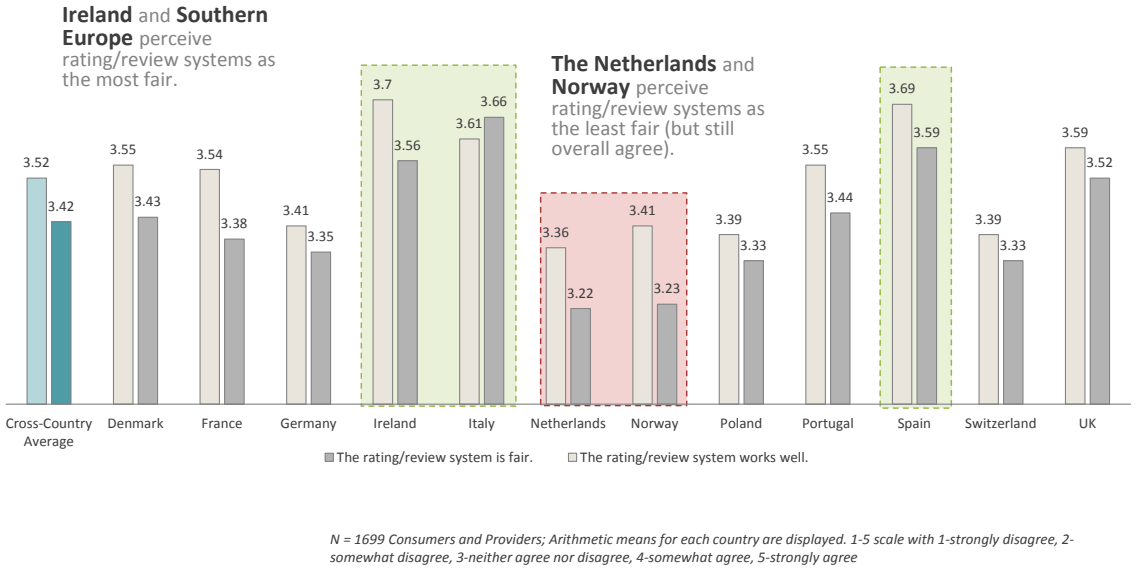
To follow up this thread of research, in this section we queried both providers and consumers about their opinions on the rating/review systems of their most frequently used platform. The first four questions assessed the overall rating and review fairness and were addressed, in an identical format, to both providers and consumers. The first dimension (*Positive Sub-dimension*) was assessed with the items '*The rating/review system is fair*' and '*The rating/review system works well*'. The second dimension (*Negative Sub-dimension*) was assessed with the items '*The rating/review system takes into account elements beyond my control*' and '*The rating/review system should be removed*'. The wording is displayed in the table below.

Question Number	**Question Wording** Prompt: Please indicate your level of agreement with the following statements about the rating/review system on the sharing platform.	**Sub-Dimension**	**Means (Standard Deviation)**
1	*The rating/review system is fair.*	Positive	3.43 (0.86)
2	*The rating/review system works well.*	Positive	3.53 (0.87)
3	*The rating/review system takes into account elements beyond my control.*	Negative	3.20 (0.88)
4	*The rating/review system should be removed*	Negative	2.35 (1.10)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

In sum, we found that sharing economy users, both providers and consumers, are relatively positive towards the existence of feedback mechanisms and do not want to see them removed. The overall agreement with the first two questions (*Positive Sub-dimension*) indicates that respondents perceive the rating/review system as being fair and working well. However, this preference is nevertheless weak and does not represent a unilateral acceptance of the rating/review systems. There is evidently room for improvement in how the rating/review systems operate.

On the *Negative Sub-dimension*, the average agreement to question 3 is below the mid-point of the scale, once the reverse-nature of the item is taken into account. Thus, many respondents perceive the rating/review system to be somewhat arbitrary, incorporating elements beyond their control. There is also a slight disagreement with the idea that the rating/review systems should be removed, but again this indicates that it is not a strong argument for the maintenance of the rating/review systems in their current form.

The Irish and Southern Europeans Have the Most Positive Assessment of the Rating/Review System



N = 1699 Consumers and Providers; Arithmetic means for each country are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 11: Rating Fairness by country; total user sample (N=1699)

Country differences in the positive dimension of the rating/review system assessment are moderately pronounced but significant (p=0.000 for *"The rating/review system is fair"* and p=0.003 for *"The rating/review system works well"*). Since platforms do not offer regional variations in how the rating/review systems operate, this reveals an experiential difference and/or a difference in perception.

We also see a regional pattern, with Southern European and English-speaking countries being most positive. On the other hand, the countries scoring the lowest (Netherlands, Norway, Switzerland, and Poland) are not clearly identifiable in terms of geographic area. While the results demonstrate that there is a general agreement that the rating/review systems are fair and work

well, this difference in perception on a country basis has implications for both expansion efforts and trans-national usage.

With regard to expansion efforts, platforms which intend to open in new markets may encounter varied uptake if they do not take into account local regional variations in rating/review fairness perceptions. Platform mechanisms which offer a 'one size fits all' approach to feedback mechanisms may alienate certain regions, particularly if they use feedback benchmarks from other areas.

Within the European sharing economy, there is a considerable amount of trans-national usage, whereby French passengers may take a BlaBlaCar to Germany, for instance, or Norwegian users may stay in a Spanish Airbnb. Cross-cultural differences, therefore, in feedback perceptions can complicate attempts to standardize feedback mechanisms on a regional basis.

Consumers perceive rating/review systems more positively than providers.

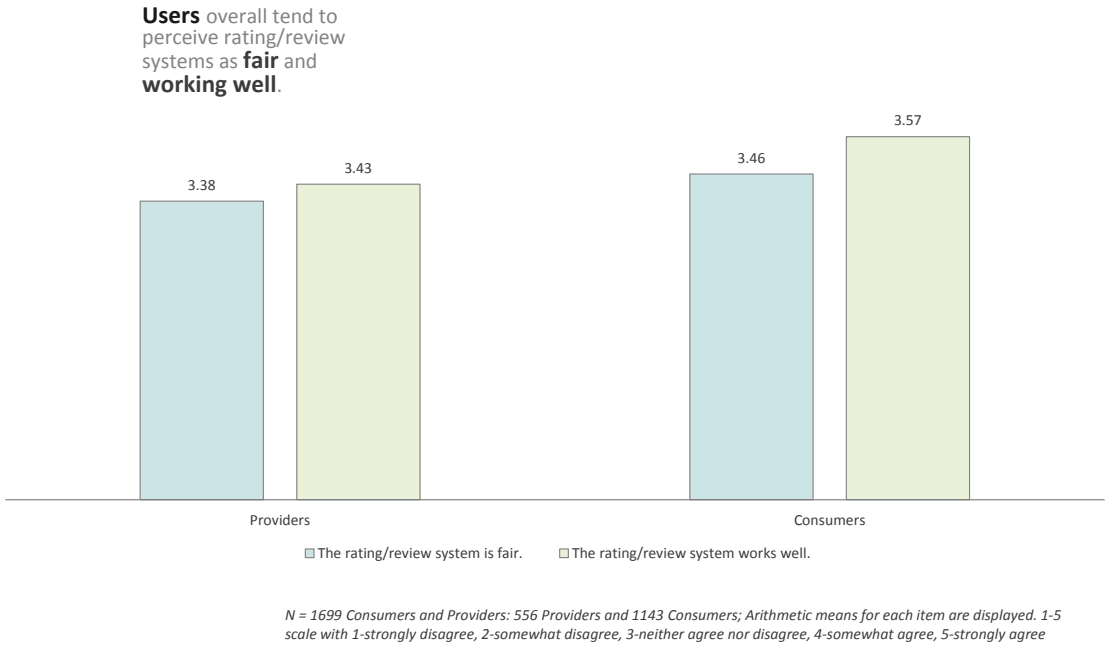


Figure 10: Rating Fairness by use-modality; total user sample (N=1699)

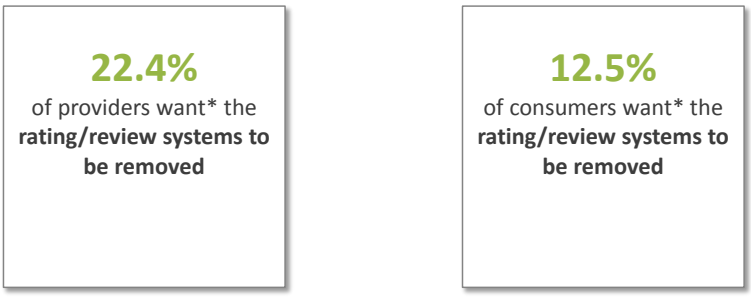
For both questions on the positive dimension, we see slight differences between providers and consumers. Although both providers and consumers do not differ in perceiving the rating system as being fair and working well overall, there is a significantly higher perception of the rating/review process as working well among consumers.

As mentioned above, the bilateral feedback mechanisms which help to foster trust among users do not have equal consequences for the whole user base. While nominally equal in a peer-to-peer environment, there are more severe consequences for providers who have bad feedback and/or low ratings. For instance, providers on certain ride-sharing platforms may be suspended from the platform due to low ratings and may also be denied certain promotions which reward

high ratings with a higher financial return. In home-sharing, for instance, negative feedback could impact the search placement and the likelihood for future consumers to book that option.

While there are certainly some consequences for low ratings among consumers, since providers do have the ability to reject consumers whose ratings are perceived to be too low or who have bad feedback, the inbuilt discouragement among certain platforms for rejecting any consumer request largely negates this consequence. Accordingly, it is not surprising to find a more positive attitude towards the rating/review system among consumers, for whom the negative consequences are not so severe.

Indeed, when assessing the response patterns more closely by use-modality, we find that 22.4% of providers want the rating/review systems to be removed and 12.5% of consumers want the rating/review systems to be removed. One general distinction evident in the results, therefore, is that consumers are more positive towards the rating/review system than providers.



Percentage of providers/consumers who selected "somewhat agree" or "strongly agree"

This imbalance reflects the uneven reality for providers in the sharing economy, whose ratings act more in the form of management appraisals and can lead to their exclusion from the platform. It is nevertheless striking that a significant proportion of consumers still want the rating/review systems to be removed, even though they largely operate to their benefit by ensuring trust and a certain level of control over providers

Due to the dual-nature of the sharing economy's feedback systems, we in fact further queried consumers about whether they think that consumers should be rated/reviewed at all.

Question Number	**Question Wording** Prompt: Please indicate your level of agreement with the following statements about rating/review system on the sharing platform.	**Sub-Dimension**	**Means (Standard Deviation)**
1	*Consumers should not be rated/reviewed.*	Negative	2.52 (1.09)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

On average, consumers disagreed with the idea that they should not be rated/reviewed. There seems to be an acceptance of the bilateral nature of the sharing economy. However, in light of the generally positive attitude of consumers towards the rating/review systems, a surprising finding was that almost one fifth of consumers (19.2%) agreed that consumers shouldn't be rated/reviewed.

This finding suggests that there is a significant proportion of the sharing economy consumer base who do not view the sharing economy as a peer-to-peer environment in the social sense. They would prefer to have the sharing transactions conducted in a more traditional sense, with the customer being immune to feedback by right of having paid for a service.

**Percentage of consumers who selected "somewhat agree" or "strongly agree"*

When combined with the results on consumer emotional labor, which found that consumers do indeed conduct emotional labor to a greater degree than providers, one could raise the issue of ratings/reviews as a factor in encouraging emotional labor. Greater awareness among platforms of the negative attitude towards bilateral feedback mechanisms could thus encourage more consumers to take part in the sharing economy. However, as a caveat, previous research has found that providers are glad of the ability to rate consumers in turn as a control mechanism against unruly behavior (Glöss et al., 2016; Lee et al., 2015). It would thus be necessary to maintain a balance between the two sides.

Following up on overall perceptions of the rating/review systems, we also asked providers and consumers separately about the rating behaviour of the other group. One aspect that was queried was the perceived accuracy of rating behaviour, assessed through the items '*Providers/consumers rate me too harshly*' and '*Consumers/providers have unrealistic expectations*'.

A further element was perceived ratings literacy, assessed through the items *'Consumers are aware of the consequences of bad ratings for me/I am aware of the consequences of bad ratings for providers*' and '*Consumers/I know how the rating/review system works*'.

The third element which was analysed was the power dynamic created due to the rating/review process. This was assessed through the item *'The rating/review system gives consumers/providers power over me*'.

For providers, this therefore included the following questions.

Question Number	Question Wording Prompt: Please indicate how much you agree or disagree with the following statements.	Direction	Means (Standard Deviation)
1	*Consumers rate me too harshly.*	Negative	2.73 (1.07)
2	*Consumers have unrealistic expectations.*	Negative	3.05 (1.05)
3	*Consumers are aware of the consequences of bad ratings for me.*	Positive	3.33 (1.02)
4	*Consumers know how the rating/review system works.*	Positive	3.39 (0.99)
5	*The rating/review system gives consumers power over me.*	Negative	3.23 (1.02)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

For consumers, this included the following questions.

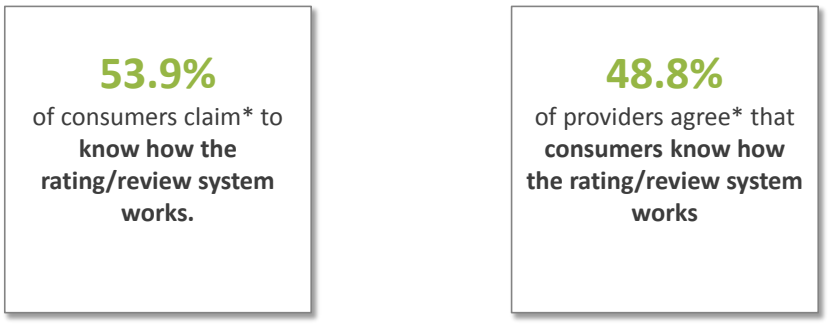
Question Number	Question Wording Prompt: Please indicate how much you agree or disagree with the following statements.	Direction	Means (Standard Deviation)
1	*Providers rate me too harshly.*	Negative	2.54 (0.97)
2	*Providers have unrealistic expectations.*	Negative	2.94 (0.87)
3	*I am aware of the consequences of bad ratings for providers.*	Positive	3.76 (0.83)
4	*I know how the rating/review system works.*	Positive	3.54 (0.87)
5	*The rating/review system gives providers power over me.*	Negative	3.08 (0.92)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

With regard to the perceived accuracy of ratings, we see among providers a moderate agreement that consumers have unrealistic expectations. However, there is also, on average, a moderate disagreement that they rate too harshly. For the consumer side, there is a disagreement on both accounts, with consumers viewing providers as both relatively fair providers of feedback. Based on this simplistic analysis, it is clear that, while consumers are generally more positive about their rating experiences, there is not a large chasm in the experience.

Turning to perceived ratings literacy, the results demonstrate that providers attest moderate to high literacy among consumers, revealing a high expectation of consumers to know how the system works. This is an interesting finding in light of current research which, largely based on ethnographic research, has argued that providers perceive consumers as having lower levels of rating literacy and needing greater education on how the ratings systems on each platform operates (Lee et al., 2015).

Looking more closely at the results, we see that more than half of consumers (53.9%) claim to know how the rating/review system works. Consumers' self-perception is more favourable and positive than providers' assessment of consumers, with only 48.8% of providers thinking that consumers know how the rating/review system works.

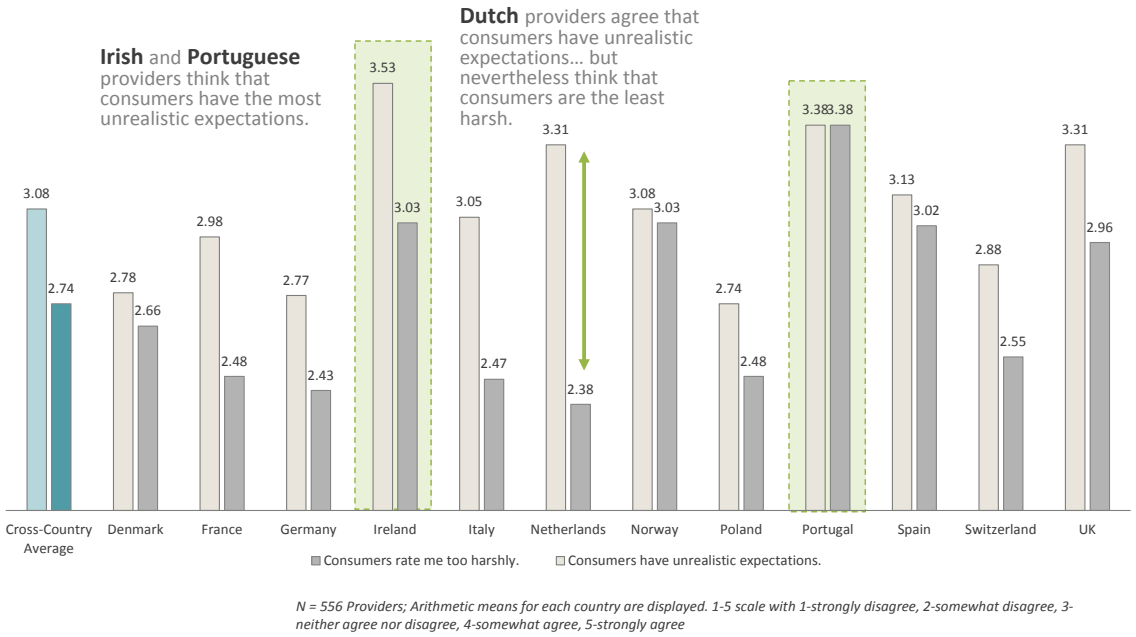
However, what is particularly striking about this finding is how low the agreement level is. We would have expected to see a higher agreement among providers about their own ratings literacy. This suggests that platforms could intervene in providing more clear information about the processes, as well as about what level of experience is to be matched with what rating. Particularly, platforms could foster awareness about the informal and culturally specific aspects of the rating/review culture on a specific site, as research has, for example, shown strong rating inflation on Airbnb (Zervas, Proserpio, & Byers, 2015).



**Percentage of providers/consumers who selected "somewhat agree" or "strongly agree"*

Finally, on the topic of the power dynamics created through the rating/review systems, we see that there is a slight agreement among both providers and consumers that the rating/review systems create a power imbalance. However, providers view the power imbalance more strongly than consumers, reflecting earlier findings in our results about consumers having a more positive overall experience. In the context of ratings being used to determine participation on certain platforms, as well as their use in impacting search rankings and the desirability of their offerings, it is not surprising that there is a greater perceived power dynamic among providers. What is, however, striking, is that again we see consumers feeling somewhat burdened by the peer-to-peer nature of the sharing economy which imposes more demands and a greater power imbalance than traditional services.

European providers are divided over the accuracy of their ratings.



N = 556 Providers; Arithmetic means for each country are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

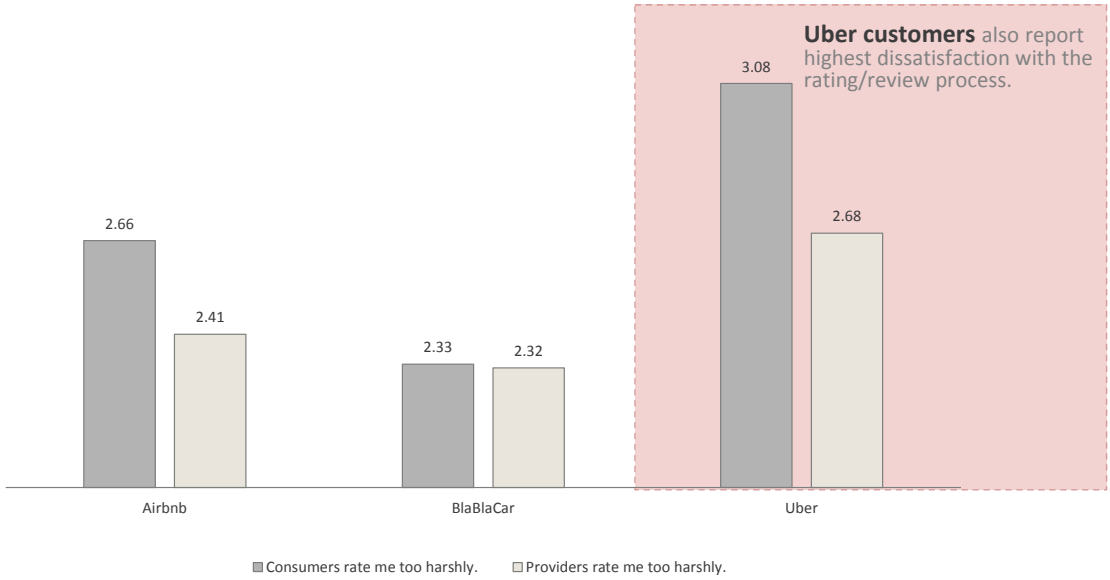
Figure 12: Rating Accuracy by country; provider sample (N=556)

Turning to more distinct country by country comparisons, we detect marked differences. Portuguese and Irish providers, for instance, have the highest perceptions of consumers as having the most unrealistic expectations. Given the highly affective and stylized advertising efforts among the major sharing platforms, who promise professional-level service quality in their advertisements as well as suggesting that the experiences are both friendly and memorable, it is perhaps understandable that consumers have high, potentially unreasonable expectations.

In absolute terms, we find that providers have a mixed approach towards consumer ratings. There is a trend towards providers agreeing that consumers have unrealistic expectations. However, there is a simultaneous trend towards disagreeing that they accordingly rate too harshly. For certain countries, such as Portugal, Spain, and Denmark, this difference is relatively small, but for most countries, and particularly the Netherlands, Italy, France, and Ireland, there is a notable gap.

This might suggest that there is a divergence between expectations and rating behaviour, or at least that consumers are perceived as moderating their unrealistic expectations when rating/reviewing. In light of the reciprocal nature of feedback, moderation of rating/reviewing behaviour towards greater fairness can be understood as a mechanism to avoid reciprocation.

Uber drivers perceive their ratings to be the toughest.



N = 1253 Consumers and Providers; Arithmetic means for each item are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

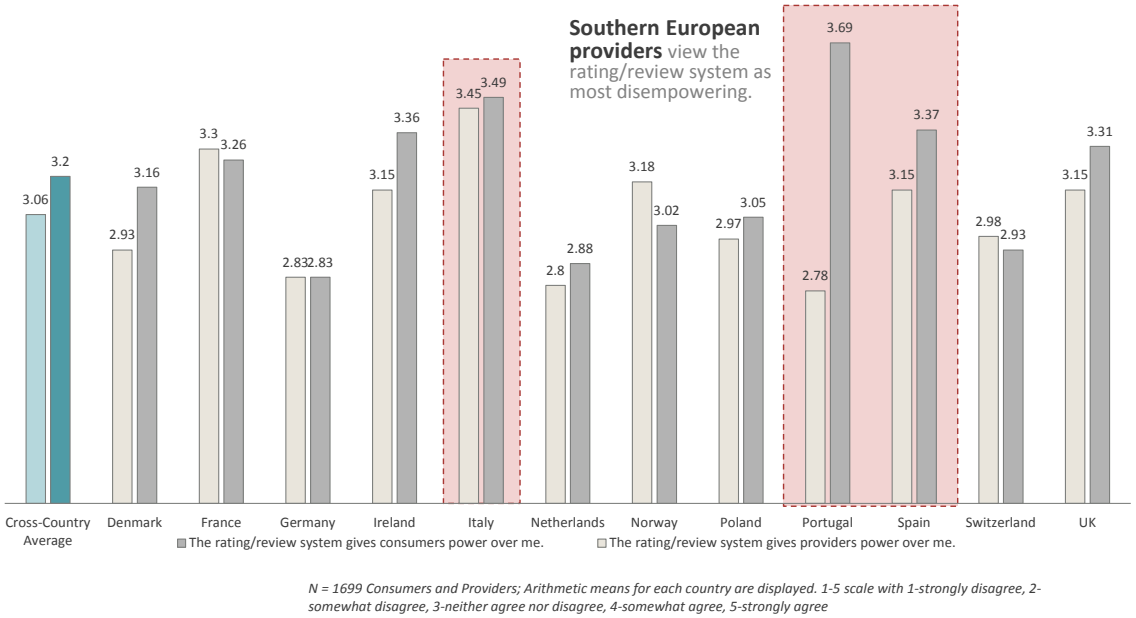
Figure 13: Rating Harshness by platform-choice; select user sample (N=1253)

One evident aspect of the sharing economy is that different platforms have different rating systems and cultures. When analyzing the results on a platform by platform level among the three most used platforms, we find that providers on Uber have the most critical views of their consumers, followed by providers on Airbnb. Indeed, there is a general but moderate agreement that consumers on Uber rate too harshly, which is striking in light of the other platforms displaying a tendency towards disagreeing.

More specifically, Uber drivers are the only provider group to view their consumers as rating too harshly. Uber, as a platform, has a higher proportion of providers who rely on their income from providing. Moreover, the rating process on Uber, where providers are rated out of 5 stars, has a highly clustered rating process where anything less than 5 stars is seen as a negative rating. Thus, for consumers who rate based on varied criteria or do not understand this dynamic, they may be rating too harshly.

On the consumer side, Uber customers also report the highest levels of dissatisfaction with their ratings, though still tending towards disagreeing overall that they are rated too harshly. This again may be due to the rating mechanisms which offer limited forms of feedback, thus meaning that a 4 star rather than a 5 star rating can be perceived as very harsh.

Southern European users think that the rating/review system creates power imbalances.



N = 1699 Consumers and Providers; Arithmetic means for each country are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 14: Power Dynamics by country; total user sample (N=1699)

Southern European and English-speaking countries assessed the rating system most positively. It is noteworthy, therefore, that it is also these countries which score the highest in terms of perceiving the rating/review system as creating power imbalances. This creates an interesting contrast, whereby residents of these countries are not only the most positive about the system but also most critical in terms of how the rating/review system might create imbalances.

In contrast to before, where respondents residing in the Netherlands and Norway judged the rating/review system least favorably, Dutch providers and consumers score lowest for thinking that the rating/review system creates power asymmetries. Except for Norway, France, and Switzerland, where consumers are somehow more critical than providers, in all other countries providers think they get the short end of the stick (i.e., providers are more critical in the sense that the rating/review creates power imbalances which are not in their favor).

In general terms, there are clear implications to be found from the cross-country tendency towards perceiving power imbalances between user types. In the results, providers perceive a greater level of power-imbalance than consumers, but both groups on average agree. In what is presented as a sharing economy between peers, any element of power imbalance can shift the experience of users from one of equality, to a more transactional element.

Naturally, since one peer is acting in a providing capacity and one is acting in a consuming capacity, mirroring traditional transactional relationships, it is difficult to remove the ingrained societal expectations of a power-imbalance. However, for certain countries where the perceived imbalance is particularly high, such as in the southern European countries, platforms could divert more attention to mediating the imbalances there.

5. Dispute Resolution in the Sharing Economy

Despite the cutting-edge technologies which characterize certain sharing economy platforms, peer-to-peer transactions between strangers and mediated by sharing platforms might not always go flawlessly. Problems might occur during the actual transaction. For example an Airbnb guest may be unable to retrieve the keys for a property while the host is not reachable. Similarly, a BlaBlaCar or Uber might not turn up or be involved in an accident. It is thus essential that there are sufficient mechanisms and procedures in place to resolve such problems.

However, in contrast to established services, such as hotels and taxis, problem solving in the sharing economy is not always institutionalized to the same extent. Due to inherent information asymmetries, platforms retain the ability to determine in disputes between providers and platforms and providers can be held responsible for problems regardless of circumstances (Calo & Rosenblat, 2017; McInnis, Cosley, Nam, & Leshed, 2016; Rosenblat & Stark, 2016). For most of the major platform-based services, customer service interactions occur through software and a human representative can be difficult to reach (Lee et al., 2015). We were therefore interested in participants' perception of how sharing platforms handle problems when they occur.

To assess this, we asked the following four questions, covering two dimensions. The first two questions ask for the role of the sharing platform in general, assessing whether they perceive the platform to be active in resolving concerns. The second dimension queried whether the platform privileges one group over the other in a conflict situation. The first set of questions were asked of providers. The second set of questions were asked of consumers.

Question Number	**Question Wording** Prompt: Please indicate how much you agree or disagree with the following statements. Again, please refer to the sharing platform identified earlier.	**Sub-Dimension**	**Means (Standard Deviation)**
1	*The sharing platform takes action to correct the concerns that I bring up.*	General	3.28 (0.94)
2	*The sharing platform gives high priority to handing provider concerns.*	General	3.19 (0.94)
3	*In a conflict, the sharing platform would take the consumer's side over mine.*	Side-Taking	3.12 (0.93)
4	*Consumers have all the power in the relationship.*	Side-Taking	3.15 (0.96)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

Question Number	Question Wording Prompt: Please indicate how much you agree or disagree with the following statements. Again, please refer to the sharing platform identified earlier.	Sub-Dimension	Means (Standard Deviation)
1	*The sharing platform takes action to correct the concerns that I bring up.*	General	3.33 (0.72)
2	*The sharing platform gives high priority to handling consumer concerns.*	General	3.36 (0.76)
3	*In a conflict, the sharing platform would take the provider's side over mine.*	Side-Taking	3.10 (0.75)
4	*Providers have all the power in the relationship.*	Side-Taking	3.07 (0.89)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

For these questions, among both providers and consumers, we found a relatively strong tendency to select the middle option ("*neither agree nor disagree*"). 49% of providers and consumers selected the middle option for the first question. 46%, 57%, and 44% selected the middle option for the other three questions respectively. This could indicate a lack of experience or knowledge, so that participants hadn't yet formed a strong opinion

However, for the users who did state an opinion, there was generally a negative attitude towards sharing economy platforms as problem solvers, with only 38.9% of users agreeing that sharing platforms would take action to correct their concerns. An even lower percentage, only 36.5%, thought that sharing platforms gave high priority to handling user concerns.

Thus, sharing economy participants perceive platforms as being quite hands-off. There are therefore improvements to be made in handling user concerns. Perhaps a first step would be to increase the human-interaction element in the customer service channels.

36.5%
of users think* that sharing platforms give **high priority to handling user concerns**.

38.9%
of users think* that sharing platforms would **take action to correct their concerns**.

49.7%
of users think* **that all users are treated the same** by the sharing platform.

**Percentage of providers/consumers who selected "somewhat agree" or "strongly agree"*

When it comes to the Side-taking Sub-dimension, around half of participants deny that the platforms take sides, indicating that they view providers and consumers as being treated in the same manner. This means, however, that a far from insignificant proportion of users views the platforms as biased and one-sided, privileging the concerns of one group over another. Since fairness is a crucial and underlying aspect of all transactional relationships, if platforms are unable to ensure fairness in the long-run, they could alienate both the current and future user base.

Northern Europeans have lower perceptions of platforms as problem solvers than Southern Europeans.

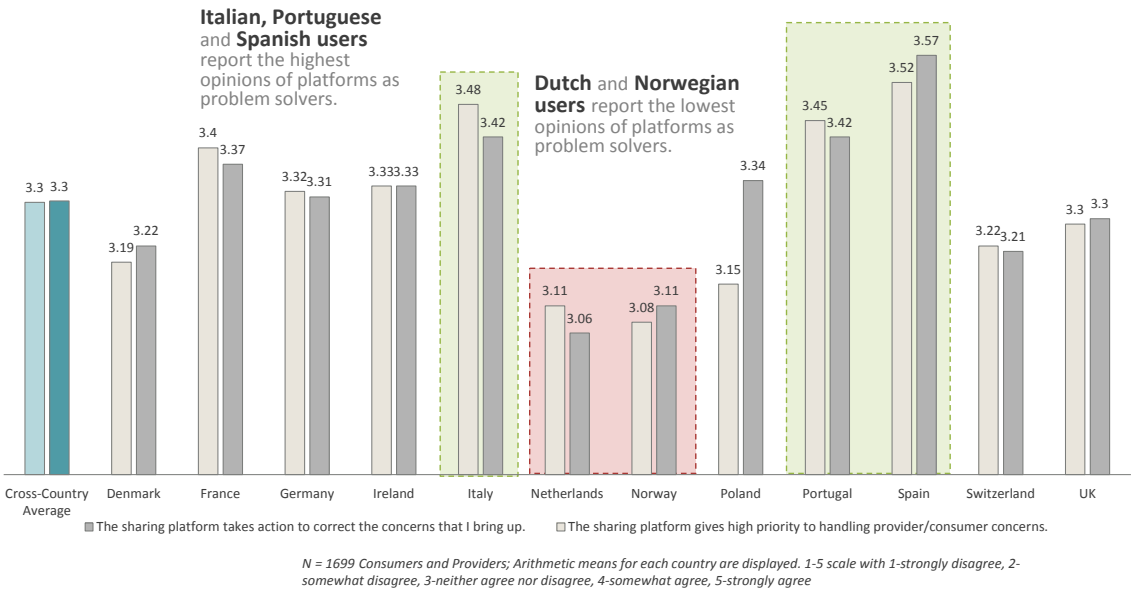


Figure 15: User concerns by country; total user sample (N=1699)

One significant finding within this element of problem-solving was that there are clear regional differences. Again, the differences between the countries are relatively large, with a visible North-South pattern. Participants in southern European countries, such as Italy, Spain, and Portugal, were clearly the most positive about sharing platforms abilities' and willingness to handle concerns. By contrast, respondents in Norway and the Netherlands are the most negative of all countries. However, the mean values are very close to the mean of the scale (3.0), showing that a substantial number of respondents perceived the platforms as not very good problem solvers.

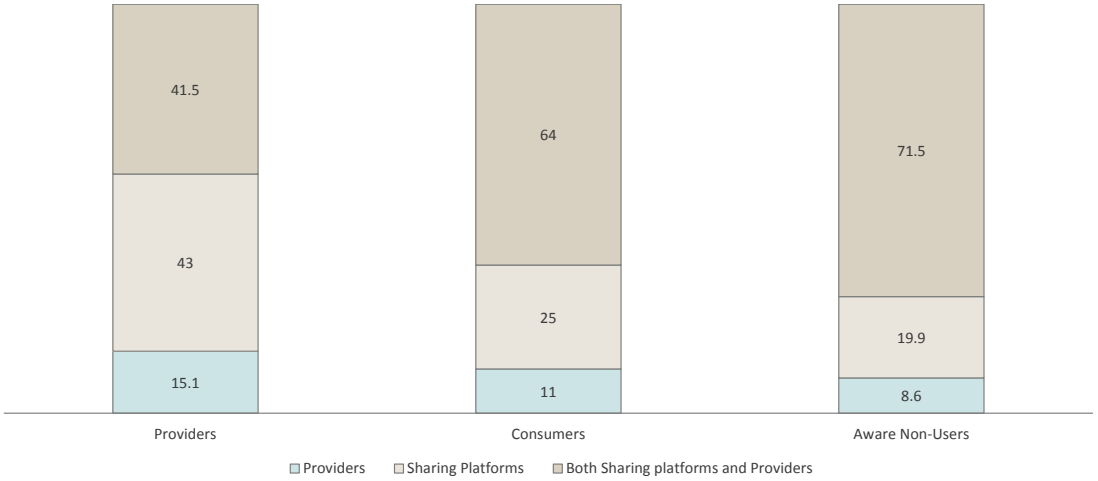
In addition to a general view of platforms as problem solvers, we wanted to query the fundamental concept of responsibility. During a sharing experience, problems might arise for which there is a lack of clarity over responsibility. Indeed, users are in a position of legal disempowerment due to a lack of clarity over the legality of services, leaving participants potentially liable for legal repercussions (Ballús-Armet, Shaheen, Clonts, & Weinzimmer, 2014; McLean, 2015; Pfeffer-Gillert, 2016).

Accordingly, this might create tension and unease among the participants, as well as potentially far-reaching legal ramifications if the problem is sufficiently serious. For instance, in the media, problems such as vehicular accidents during a ride-hailing experience are given considerable attention. We therefore asked the following question to both providers and consumers. In order to assess the views of individuals who are aware of the sharing economy, but have not used the services, we also asked the following question to aware non-users.

Question Number	**Question Wording**
1	*Who do you think should be responsible for resolving problems that might come up during a sharing experience?*
Response options: 1-Providers, 2-Sharing platforms, 3-Both sharing platforms and providers	

In general, we found that a substantial majority holds both providers and platforms responsible for resolving problems that might come up during a sharing experience (67%). More specifically, when respondents chose one of the options, we found that they held the platforms solely responsible more often than providers. 23% think that only sharing platforms are responsible for resolving problems that might come up during a sharing experience, whereas 30% think that only sharing platforms are responsible for resolving problems that might impact non-users.

Providers assign more responsibility to themselves for resolving issues which come up during a sharing experience.



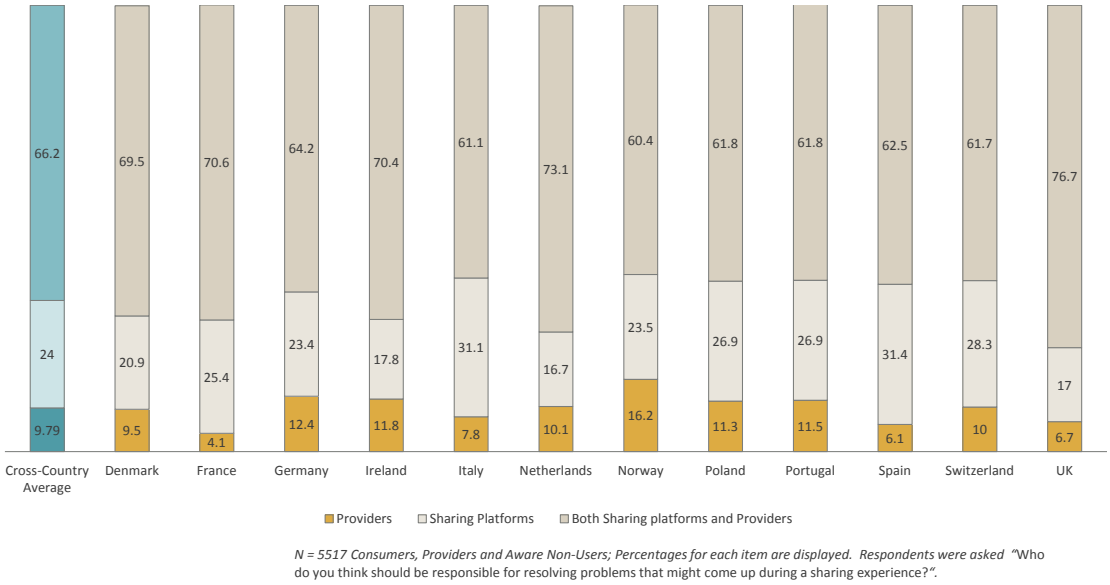
*N = 5517 Consumers, Providers and Aware Non-Users; Percentages for each item are displayed. Respondents were asked "*Who do you think should be responsible for resolving problems that might come up during a sharing experience?*".*

Figure 16: Responsibility by use-modality; combined sample of users and aware non-users (N=5517)

Our results, when differentiated by use-modality, indicated that providers assign more responsibility to themselves than consumers and aware non-users assign to providers. At the same time, providers think the platform should be responsible much more than consumers and aware non-users. It is interesting that providers assign more responsibility to themselves for resolving issues which might come up during a sharing experience than any other group. The burden of responsibility has perhaps been internalized by providers, even though consumers and non-users are happy to hold platforms more to account. A factor in this discussion is, however, that providers might be the most aware that platforms are less able or willing to actively resolve issues, thus causing an internalization of responsibility.

Non-users are the most likely, and significantly more likely than providers, to assign a balanced responsibility. The differences in allocation can be ascribed, therefore, to exposure and awareness of sharing platform practices. It could be the case that aware non-users, having no experience of using the platforms, are guided in their understanding by media and marketing rhetoric which ascribes to the platform a prominent role in the whole experience. By operating a heavily 'branded' platform, it would be a natural conclusion that non-users would assume greater involvement of the platforms in the resolution of problems.

Respondents based in Spain and Italy view platforms as more responsible for resolving problems that might come up during a sharing experience.



*N = 5517 Consumers, Providers and Aware Non-Users; Percentages for each item are displayed. Respondents were asked "*Who do you think should be responsible for resolving problems that might come up during a sharing experience?*".*

Figure 17: Responsibility by country; combined sample of users and non-users (N=5517)

In terms of country differences, participants based in Norway assign the highest responsibility to providers. The overall trend, indeed, is to hold platforms to greater account than providers, with most respondents selecting either 'Sharing Platforms', or 'Both Sharing platforms and providers'. However, there are also significant differences between countries based on assignation of responsibility to platforms. One quite striking distinction is that among UK-based respondents and those in the Netherlands, the proportion who assign shared responsibility is largest, with roughly three quarters thinking both should be responsible.

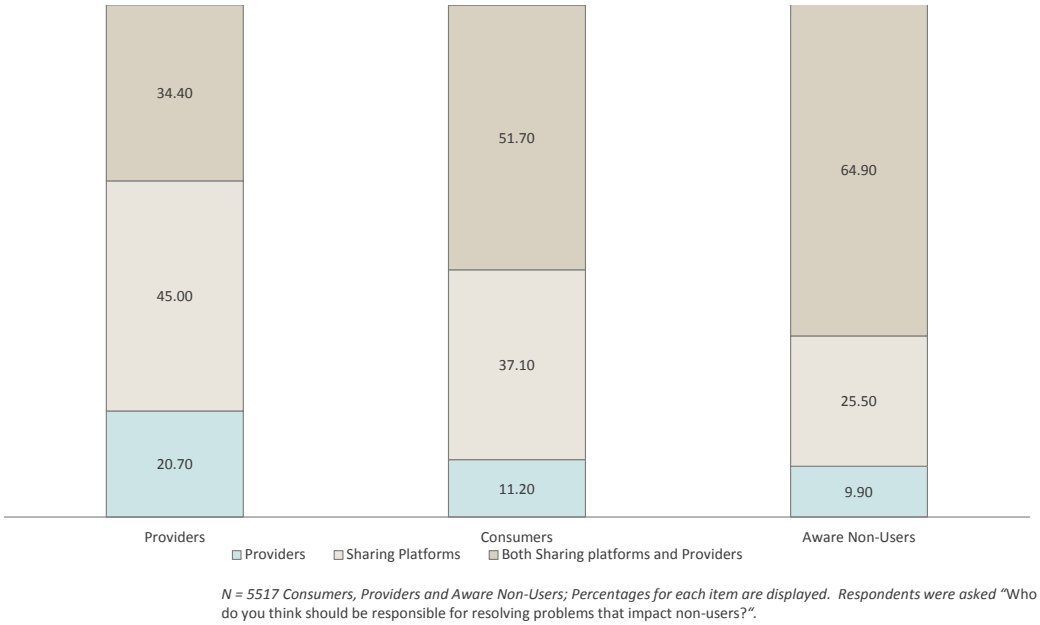
However, almost a third of respondents in Italy and Spain assign responsibility solely to platforms, which is almost double the proportion who assign it in the Netherlands or the UK. This suggests that if a problem arose during a sharing experience, Italian and Spanish providers would be more likely to look for a platform-based solution, as opposed to expecting providers to solve the problem. This accords with a perception of platforms as more than mere intermediaries but as active participants in the sharing experience.

In addition to conflicts between consumers and providers, sharing economy transactions might also cause negative consequences or externalities for non-involved parties. In the media, such discussions revolve around gentrification and crowding out of long-standing tenants as well as transformations of neighborhoods through Airbnb more generally. However, there are more micro-level externalities, such as having unruly guests disturb neighbors, which can be equally as distressing for non-users. Problems which impact non-users can be particularly problematic as non-users they have limited to no recourse to resolve issues. Given that the rhetoric of the sharing economy revolves around it being a social phenomenon, potentially disruptive aspects of the sharing economy need to be mediated to provide a socially beneficial experience for all.

Addressing this aspect of externalities on a more micro-level, we therefore asked the following question to providers, consumers, and aware non-users.

Question Number	Question Wording
1	*Who do you think should be responsible for resolving problems that impact non-users?*
Response options: 1-Providers, 2-Sharing platforms, 3-Both sharing platforms and providers	

Providers assign more responsibility to themselves for resolving negative externalities.

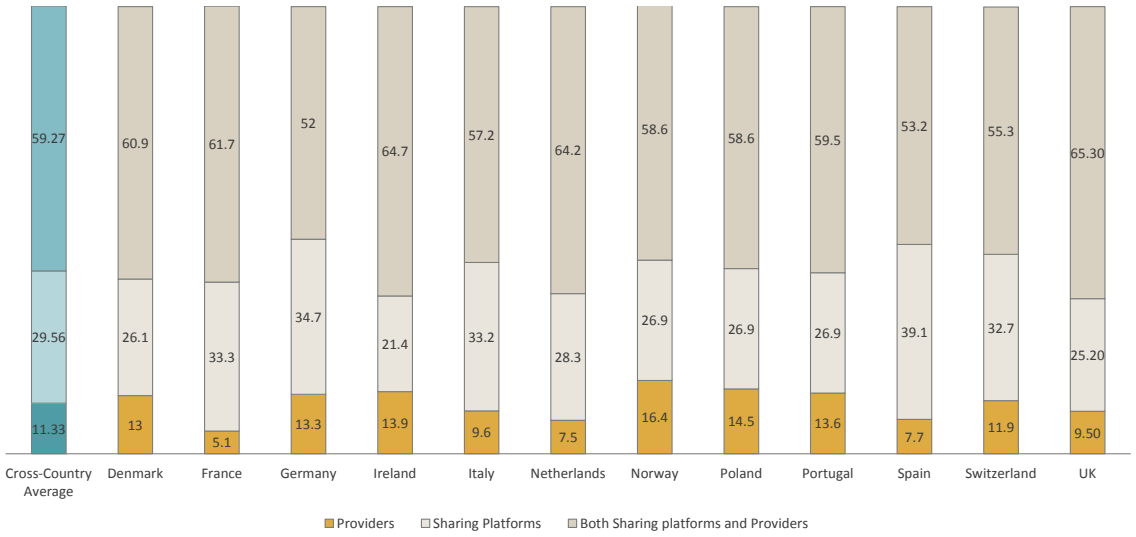


*N = 5517 Consumers, Providers and Aware Non-Users; Percentages for each item are displayed. Respondents were asked "*Who do you think should be responsible for resolving problems that impact non-users?*".*

Figure 18: Negative Externalities by use-modality; combined sample of users and aware non-users (N=5517)

Mirroring the question about responsibility for issues raised during a transaction, we find a similarly self-internalizing approach to problem resolution among providers. Here, providers assign most responsibility to the platform, followed by assigning shared responsibility. There is a weak tendency among providers towards viewing resolution as a joint-effort, whereas aware non-users see shared responsibility between providers and platforms as the most suitable response. In comparison to responsibility allocation for issues arising during a transaction, platforms are held to be even more responsible for resolving externalities in the eyes of sharing economy participants and aware non-users.

Norwegians view providers as more responsible for resolving negative externalities.



N = 5517 Consumers, Providers and Aware Non-Users; Percentages for each country are displayed. Respondents were asked "Who do you think should be responsible for resolving problems that impact non-users?".

Figure 19: Negative Externalities by country; combined sample of users and aware non-users (N=5517)

Again, similar to before, we see noteworthy country differences among responsibility allocation for resolving externalities. As above, participants based in Norway assign most responsibility to providers, whereas those based in Spain, Germany, and France assign most responsibility to the platforms. This indicates a north-south contrast. The French, in this instance, are particularly noteworthy as the least likely to assign responsibility to providers, with only 5.1% of respondents holding them responsible. Among UK-based respondents the proportion who sees shared responsibility between providers and platforms is largest, with about two thirds thinking both of them should be responsible.

6. Terms and Conditions in the Sharing Economy

Terms and conditions are crucial elements of a platform's governance and it has been argued that providers in the sharing economy lack informed consent when agreeing to platform terms of service (Calo & Rosenblat, 2017; Van Doorn, 2017). Accordingly, the nature of contracts has become a burgeoning issue in terms of establishing the bargaining position and power of users. Terms and conditions describe user rights and show the underlying philosophies of how a platform operates. They are revealing documents in outlining platform data practices, business models, and allocation of responsibility.

At the same time, research to date in a number of academic disciplines have shown that many users do not carefully read and assess the terms of conditions. This is particularly the case for online platforms whose terms and conditions may change too frequently or assume agreement through continued usage (Bar-Gill, 2012; Horton, 2010). As a fundamental element in both creating and maintaining power imbalances, we wanted to know how users approached sharing platform terms and conditions. To do so, we asked a series of 5 questions divided into three main elements.

The first element concerns the accessibility of terms and conditions, assessed through the items '*The terms and conditions are easy to find*' and '*The terms and conditions are easy to understand*'. The second element concerns user literacy of the terms and conditions, assessed through the items '*I have read the terms and conditions*' and '*I am confident in my understanding of how the sharing platform operates*'. The final element concerns perceptions of the openness of platforms towards their terms and conditions, assessed through two items: '*The sharing platform changes the terms and conditions too frequently*' and '*I'm hesitant to question the sharing platform's policies'*.

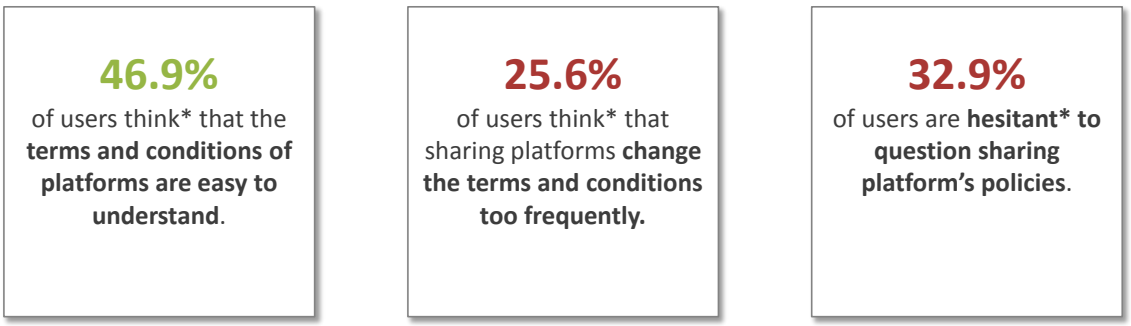
Question Number	**Question Wording** Prompt: Please indicate how much you agree or disagree with the following statements.	**Sub-Dimension**	**Means (Standard Deviation)**
1	*The terms and conditions are easy to find.*	Accessibility	3.49 (0.93)
2	*The terms and conditions are easy to understand.*	Accessibility	3.32 (0.98)
3	*I have read the terms and conditions.*	Literacy	3.24 (1.15)
4	*I am confident in my understanding of how the sharing platform operates.*	Literacy	3.57 (0.86)
5	*The sharing platform changes the terms and conditions too frequently.*	Negative	2.98 (0.92)
6	*I'm hesitant to question the sharing platform's policies.*	Negative	3.10 (0.96)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

Regarding the first dimension, about terms and conditions accessibility, participants tended to agree that they were both accessible and understandable. However, overall they perceived the terms and conditions as being easier to find than to understand. Looking at the level of agreement, only 46.9% of users agreed that the terms and conditions were easy to understand. This suggests that platforms should make more efforts to increase the transparency of their terms and conditions and provide clear outlines that are not rendered in confusing legal jargon.

Regarding the second dimension, of terms and conditions literacy, a substantial minority of 48% claimed to have read the terms and conditions, with 27% being in the middle category and one fourth (25%) claiming to have not read them. On the presumption of accurate reporting of users' own literacy, these results still suggest that a good part of sharing economy participants has not read the terms and conditions of the respective sharing platform, opening them up to potential vulnerabilities.

The limitations of the survey prevented further insights into what was considered reading among participants. Nevertheless, there is a sign of self-confidence in the operation of sharing platforms which suggests that users feel comfortable using the services, even though our results suggest that not everyone feeling so confident had actually read the full terms and conditions. A question should thus be raised of whether users feel a sense of false confidence which could have negative consequences in the case of a dispute.

Interestingly, based on this analysis, respondents revealed a tendency towards hesitancy to question the sharing platform's policies. There was also only very slight disagreement with the statement that sharing platforms change their privacy policies too frequently. However, there are still significant minorities of users who think that sharing platforms change the terms and conditions too frequently (25.6%) and who are hesitant to question a sharing platform's policies (32.9%).



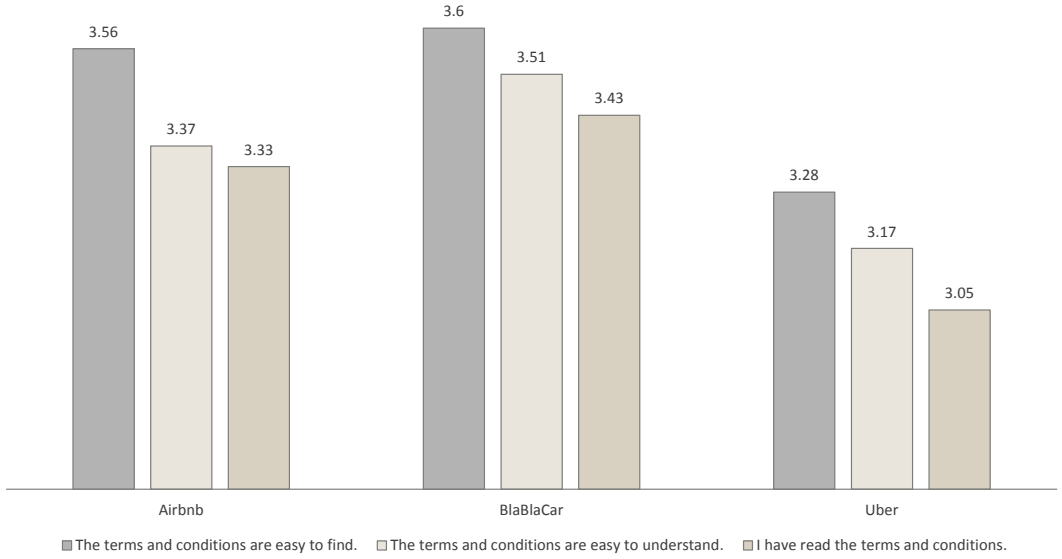
Percentage of providers/consumers who selected "somewhat agree" or "strongly agree"

The overall picture painted by the survey results is therefore relatively ambiguous, with mixed opinions about the terms and conditions. Substantial proportions of sharing economy participants find the terms and conditions difficult to understand, have not read them, and think they are changed too frequently. Moreover, almost a third of participants are hesitant to question them, potentially due to a lack of knowledge.

Interestingly, we find that participants who report having read the terms and conditions are more hesitant to question them than those who report having not read them (r=0.14, p=0.000). This result could, however, be read that participants who are hesitant to question sharing platforms' policies are more likely to read them in the first place.

At the same time, we found that participants who have read the terms and conditions are more likely to think that the sharing platform changes them too frequently (r=0.13, p=0.000) – or vice versa. However, the largest correlations are between reporting having read the terms and conditions and perceiving them as easy to find (r=0.42, p=0.000) and easy to understand (0.49=, p=0.000). It is very evident, therefore, that if sharing platforms want more people to read their terms and conditions, they should make them easier to find and understand. This raises the question, of course, of whether platforms prioritize their users' literacy, as ignorance of the terms can work for their benefit in the long-run.

BlaBlaCar is perceived to have the most accessible terms and conditions. Uber has the least accessible.



N = 1253 Consumers and Providers; Arithmetic means for each group are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 20: Terms and Conditions Accessibility by platform-choice; select user sample (N=1253)

On a more fine grained basis, our analysis demonstrates that platforms differ in how accessible their terms and conditions are perceived to be. From the three most frequently used sharing platforms in the data, BlaBlaCar had the highest perceived accessibility, with Uber scoring the lowest. Not only is the perceived findability and understandability of Uber's terms and conditions lowest, but Uber drivers and passengers also report the lowest readership levels. This creates a potentially problematic dynamic, where Uber are users are particularly susceptible to being taken advantage of by the platform.

European users display moderate literacy about platform terms and conditions.

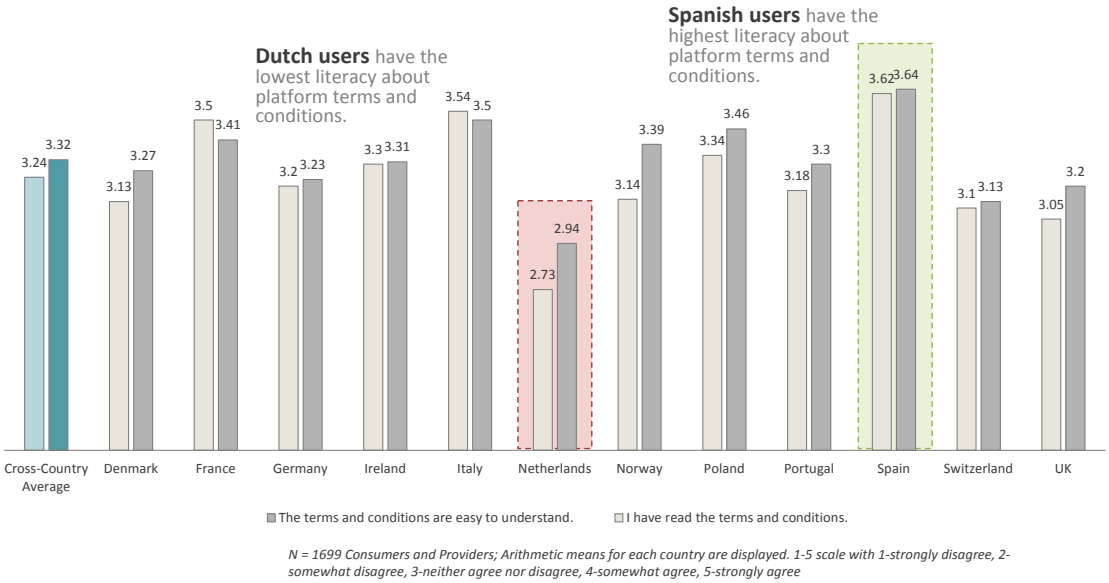


Figure 21: Terms and Conditions Literacy by country; total user sample (N=1699)

On a country-by-country level, the reported readership of terms and conditions is highest among sharing economy participants in Spain and Italy. This result might suggest a decreased level of trust in the sharing platform, as a decision to read the terms and conditions may correspond with an attempt at self-protection in the case of accidents. By contrast, it is lowest among providers and consumers is the Netherlands, which is also the only country where the arithmetic mean is below the scale mid-point of 3.0. There does, in any case, appear to be a rough correlation on a country-by-country basis of accessibility and literacy.

Older users display higher literacy about platform terms and conditions.

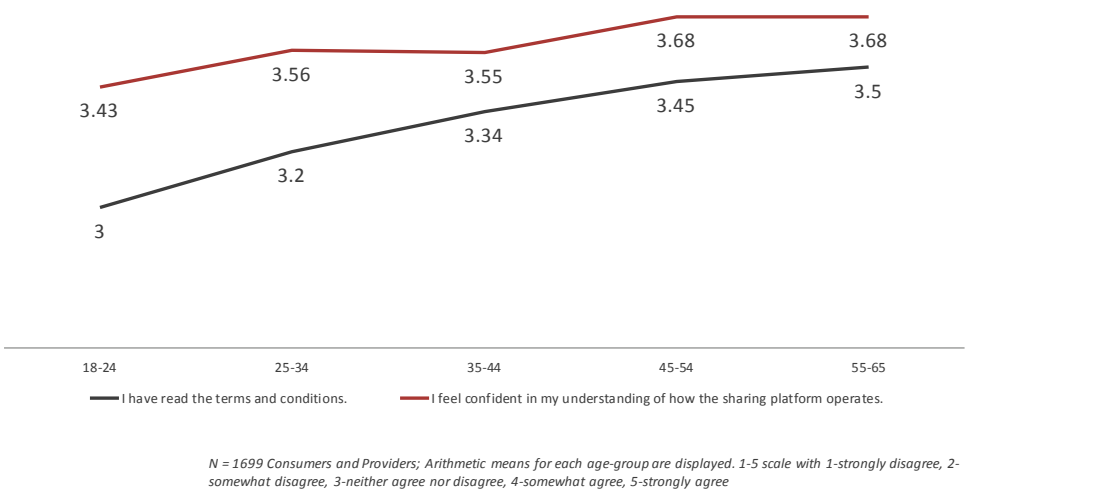


Figure 22: Terms and Conditions Literacy by age group; total user sample (N=1699)

Interestingly, our data reveals that there are significant age differences in how users read terms and conditions (F=9.33, p=0.000) and how much confidence in their understanding of the platform they display (F=4.17, p=0.002). In general, we find that older users report higher levels of readership and confidence than younger users. In line with the generalized results above, users tend to feel higher levels of confidence than their literacy should warrant.

The largest gap is however found in the youngest age bracket, who score 3.0 on average for literacy, but 3.43 for confidence. This may indicate an over-confidence in their understanding of platforms and perhaps a greater degree of trust in the platforms. For older age groups, the literacy and confidence increase, while the gap steadily decreases. Thus, older users have more assured confidence based on having read the terms and conditions, whereas younger users have confidence which is rather based on usage and assumptions. A clear implication is thus that literacy and awareness initiatives might particularly focus on the age groups 18-24 and 25-34, for whom literacy is the lowest but over-confidence is the greatest.

Across Europe, participants show hesitancy towards questioning a platform's policies.

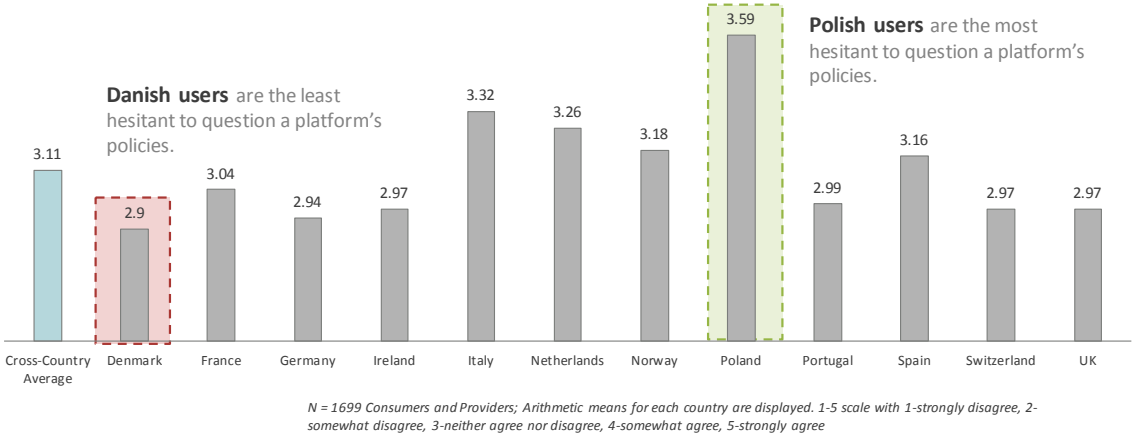


Figure 23: Question Hesitancy by country; total user sample (N=1699)

As seen above in the generalized findings, sharing economy participants across the twelve countries sampled are relatively hesitant to question platform's policies, where the cross-country average shows a slight tendency towards hesitancy. However, we nevertheless detected significant country differences in how hesitant users are to question platforms and their policies. In Poland, for instance, sharing economy participants were the most hesitant to question platform policies. In Denmark and Germany, by contrast, users were the least hesitant. A clear limitation is that we could not further assess the reasons for such hesitancy. While one reason for hesitancy could be complete agreement with policies, a further reason could be awareness of the futility of questioning the policies. While we cannot assess such causes, it is nevertheless significant for understanding the power dynamic between users and the platforms that users demonstrate such hesitancy. Platforms are thus held to much less account for potentially unfair or unbalanced terms.

7. Pricing in the Sharing Economy

Whereas a simple offline peer-to-peer transaction would traditionally include one price mechanism, the mediated nature of online peer-to-peer transactions introduces several independent price mechanisms that can occur concurrently or at different times: provider-to-platform, consumer-to-platform, peer-exchange price, and platform commission. Although not every mechanism is encountered on each platform, individual platforms utilize a combination depending on their own business model. In particular, platforms are able to operate discriminatory pricing mechanisms due to information asymmetry, through processes such as dynamic pricing (Calo & Rosenblat, 2017; Chen & Sheldon, 2015). This complicated model of sharing economy pricing can thus raise questions about the transparency and fairness of platform pricing models

As a crucial aspect of the user-platform relationship, we were therefore interested in sharing economy participants' perceptions of platform pricing. To assess different pricing aspects, we used the following three questions, addressed at both providers and consumers.

Question Number	**Question Wording** Prompt: Please indicate how much you agree or disagree with the following statements.	**Sub-Dimension**	**Means (Standard Deviation)**
1	*The sharing platform provides clear information about the pricing system.*	Literacy	3.49 (0.93)
2	*The sharing platform cut is too large.*	Proportionality	3.17 (0.87)
3	*The sharing platform's pricing policy is fair.*	Fairness	3.35 (0.91)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

Overall, we found that providers and consumers perceive platforms as providing clear information about the pricing system. Only 14% of all users disagreed that the platforms provide clear information about the pricing system, while 54% of users agreed that they provide clear information. This finding is somewhat surprising given the often opaque nature of sharing economy pricing mechanisms.

At the same time, somewhat negating this positivity, a substantial number of respondents perceived the sharing platforms' cut as being too large. More specifically, they perceived that the platforms took too much money from a single sharing transaction. While 31.5% agreed that the cut was too large, more than half of all respondents (51%) declined to provide an opinion (neither agree nor disagree), revealing that many participants might not have a clear opinion at this point.

However, despite seeing the platform cut as too large, on average participants perceive the pricing policy of their most frequently used platform as being fair. This suggests that the platform cut does not strongly impact perceptions of the overall pricing fairness.

54%
of users think* that sharing platforms **provide clear information about the pricing system**.

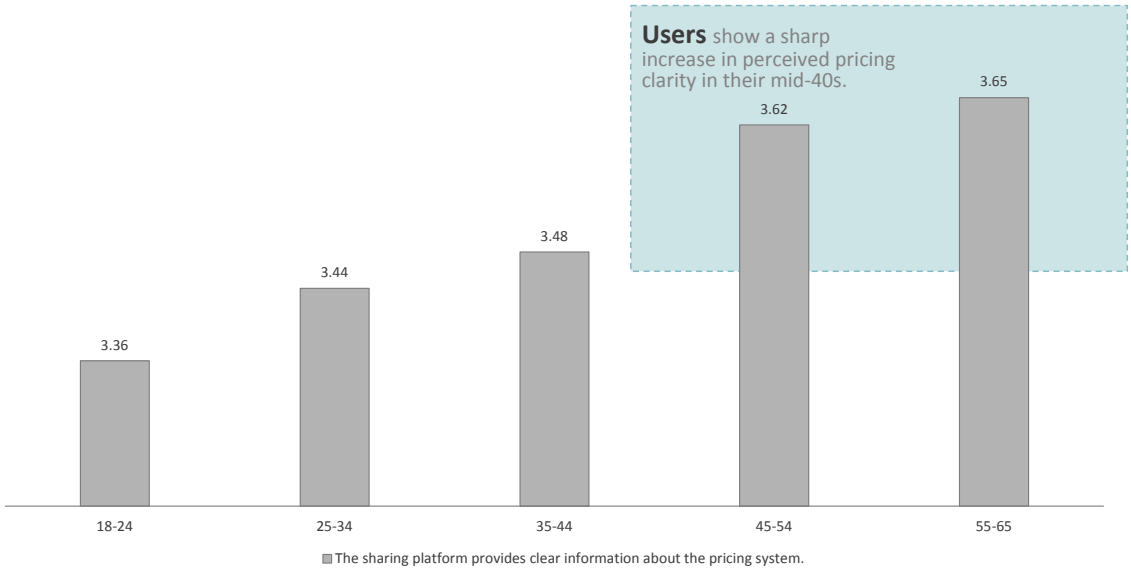
31.5%
of users think* that **the sharing platform cut is too large.**

44.6%
of users think* that the sharing platforms' **pricing policies are fair.**

**Percentage of providers/consumers who selected "somewhat agree" or "strongly agree"*

Some overall key descriptive findings on the topic of pricing are displayed below. Firstly, and in line with the findings regarding the perceived accessibility of terms and conditions, age has a significant impact on perceived pricing information clarity. Secondly, the results point to country differences with regard to the platform 'cut' and to overall perceived fairness.

Older users perceive platform pricing information most clearly.



N = 1699 Consumers and Providers; Arithmetic means for each age-group are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 24: Pricing Literacy by age-group; total user sample (N=1699)

In line with previous findings on age differences (e.g., about respondents' familiarity with the terms and conditions), there is a positive age effect for perceiving the pricing information as being clear. In other words, older sharing economy participants report significantly higher scores (F=4.73, p=0.001) than younger users in their perception of the pricing system as clear.

In particular, we see a sharp increase in perceived clarity in the mid-40s age range. This result suggests that there is a higher level of financial literacy among older users. It also suggests that sharing platforms could put more effort into making their pricing information clearer for a younger audience.

European Users agree that platforms take too much money from each transaction.

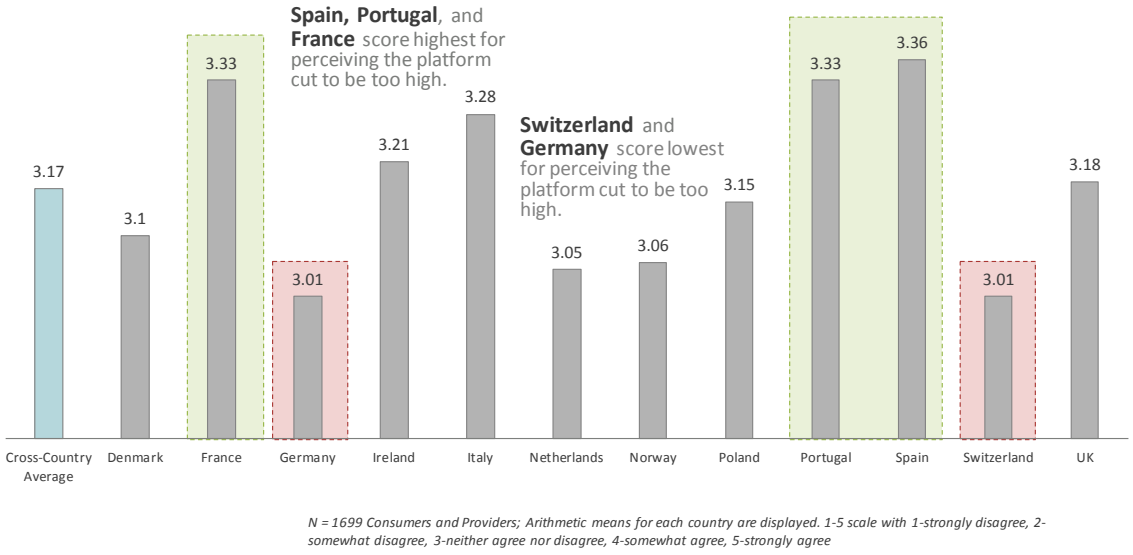


Figure 25: *Platform Commission by country; total user sample (N=1699)*

On average across all countries, we found that sharing economy participants think that the platform cut is too large. However, we found notable country variations. France, Portugal, and Spain, followed by Italy reported the highest results for perceiving the platform cut to be too large. This would suggest a relatively southern European trend of perceiving the platform cut to be too large. Specifically, since a larger platform cut would result in lower earnings on behalf of providers, as well as higher relative costs to consumers, this southern European trend might indicate that they perceive providers to be unfairly recompensed for their labor. It also might suggest that platforms are perceived as 'over-stepping' their professed role as being merely intermediaries.

By contrast, the lowest scoring countries for this item were Germany and Switzerland, followed by Norway and the Netherlands. This again suggests a slightly northern bias, as well as a bias related to country GDP. For higher-earning countries, therefore, a larger platform cut does not appear to be as much of a problem, whereas for lower earning countries, a larger platform cut is viewed as directly reducing provider income with the attendant negative consequences.

European users perceive platform pricing policies as being moderately fair.

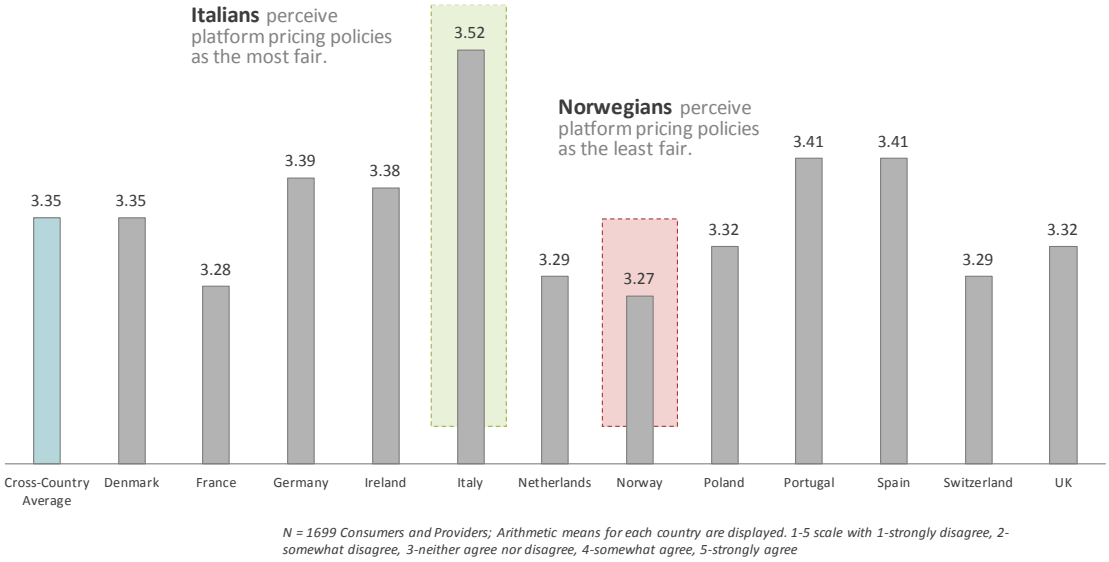


Figure 26: Pricing Policy Fairness by country; total user sample (N=1699)

When assessing for overall fairness, somewhat counterintuitively to the results of the platform commission item, there is a cross-country agreement that the pricing policies are moderately fair. However, there is still considerable room for improvement. We also see slightly less variation in the opinions about the pricing policy. In most countries, participants score similarly with neutral to positive attitudes about the pricing policy.

What is striking, in comparison to views about the platform 'cut', is that there seems to be a reverse in the regional distribution, with southern European countries perceiving the pricing policy to be nevertheless the most fair. This argues for a perceived distinction between the platform cut and pricing policy fairness.

8. Platform Control in the Sharing Economy

According to one of the key arguments of the proponents of sharing economy services (e.g., Botsman & Rogers, 2011), matching platforms enable flexible and convenient access to under-used assets by connecting providers and consumers. Such platforms make it convenient for providers to offer access to their belongings whenever they want and for consumers to access providers' belongings whenever they see fit.

However, a certain level of platform control over their provider base is essential for the smooth running of the sharing economy. Without providers who are willing to share their assets, there would be no sharing economy. Without providers who are willing to share their assets on a regular basis, much of the 'on-demand' nature of the sharing economy would disappear. Moreover, without a level of control over the matching process on platforms, platforms would have less ability to ensure constant and open access to sharing experiences.

Yet, as has been shown in scholarship to date, platforms take steps to control how and when providers engage in the sharing economy, as well as to restrict the matching options of providers and consumers (Glöss et al., 2016; Lee et al., 2015). This can occur for positive reasons, such as the prevention of discriminatory behavior (Edelman, Luca, & Svirsky, 2017; Rosenblat, Levy, Barocas, & Hwang, 2016). However, platform control can reduce the autonomy of providers to act in their own best interests for the highest financial return. Platforms have been accused, for instance, of restricting access to information which would enable providers to assess the profitability of certain transactions, thus limiting their own ability to enact informed agency (Rosenblat & Stark, 2016; Slee, 2015; Van Doorn, 2017).

For our investigation of the relationship and power dynamics inherent within the sharing economy, it was thus essential for us to look at the level of control which platforms attempt to levy over their providers. Given the narratives of providers as being micro-entrepreneurs who are their own 'boss', high levels of control could transition into a situation of an employment relationship or reduce some of the benefits of operating within the sharing economy.

We therefore wanted to know: Does the view of convenient flexibility reflect the actual reality or do providers feel pressured to provide more often than they would want to? Are providers able to determine their own schedule or do they feel overly constrained by the platform? Do they think they have the option to reject transactions and to determine themselves who to share with? To address questions of control, we asked providers and consumers separately about different control-related aspects of the sharing transaction.

The first aspect assessed providers' experiences of platform control over the frequency of their sharing, assessed through the two items '*I feel pressured to provide more often than I would like*' and '*I determine my own schedule*'. The second aspect assessed providers' expectations for matching selection, assessed through the two items '*There should be no consequences for rejecting a transaction*' and '*I should not be restricted by the platform in choosing who to share with*'.

Question Number	Question Wording Prompt: Please indicate how much you agree or disagree with the following statements.	Audience	Means (Standard Deviation)
1	*I feel pressured to provide more often than I would like.*	Providers	2.89 (1.13)
2	*I determine my own schedule.*	Providers	3.75 (0.98)
3	*There should be no consequences for rejecting a transaction.*	Providers	3.55 (1.06)
4	*I should not be restricted by the platform in choosing who to share with.*	Providers	3.43 (1.00)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

For the first aspect, our results show that while most providers determine their own schedule (63%), there remains still a substantial minority of over one third who reports feeling that they do not control their own schedule. This aspect is problematic for the 'flexibility' element of the sharing economy, which is touted as a primary reason for many to take part and one of the benefits of operating in the sharing economy over other industries. This result may indicate that there is a far greater level of platform overreach in terms of attempted scheduling through behavioral nudging or advisory behavior.

**Percentage of providers who selected "somewhat agree" or "strongly agree"*

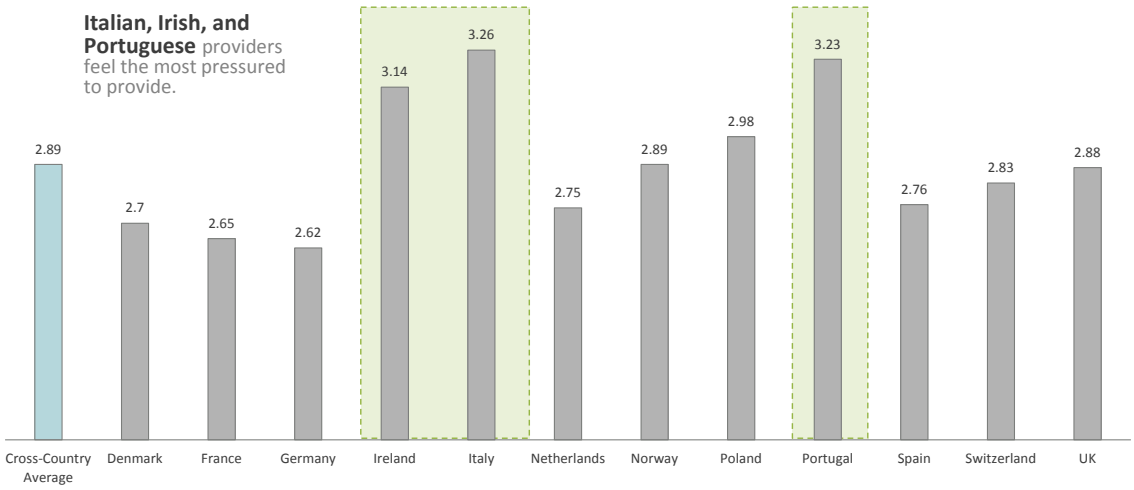
We find similar results when asking providers about whether they feel pressured to provide more often than they like. While in the overall average score it shows a moderate to slim disagreement, the data shows that almost a third of all providers (30.4%) agree that they feel pressured to provide more often than they would like.

For the second dimension, which looked at perceived control over the matching process, responses show that providers desire a lot of freedom and independence in rejecting transactions

and deciding for themselves who to share with. A majority of providers (50.3%) also agreed that there should be no consequences for rejecting a transaction. For platforms, this is a challenging finding because it is important to maintain a balance. Platforms must prevent discriminatory practices while still allowing providers to be somewhat flexible and feel in control.

Some overall key descriptive findings on the topic of control are displayed below, with the significant findings centering on the element of provider flexibility. Firstly, we found significant country-differences with regard to platform pressure. We also found that age influences perceived schedule control, with older providers feeling the most in control but younger providers feeling the least in control. Thirdly, given the wide differences between platform modalities, it was important that we examined responses on a platform-by-platform basis. We found a significant difference on the item for *'I feel pressured to provide more often than I would like'*, where Uber providers showed strong levels of platform control. Lastly, we found stark country differences for the items surrounding provider control over the matching process, with Norwegian respondents wanting the least control over the matching process, but Portuguese providers wanting the most.

Italian providers feel the most pressured to provide more often than they would like.



N = 556 Providers; Arithmetic means for each country are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 27: Schedule Pressure by country; provider sample (N=556)

On a country-by-country analysis, we found broad differences in perceived pressure to provide. Whereas the cross-country average was an overall though mild disagreement, providers in Ireland, Italy, and Portugal all showed an average agreement with the statement, indicating a pressure to provide. In terms of the least pressured, providers in Germany and France felt the least pressure from platforms to provide more often than they would like.

Given the broad country differences, it would be interesting to further explore the reasons behind such pressure and whether it could be attributed solely to platform pressures or more external pressures, such as economic pressures or familial pressures. To explore this further, we checked whether providers who rely more strongly on their income from providing, against merely providing as a hobby or side-hustle, feel more pressured. To do so, we calculated the Spearman correlation between the item *'I feel pressured to provide more often than I would like'* and the item *'The income I get from providing on the sharing platform… 1) is my main source of income 2) is a good way of supplementing my main income 3) is just something I earn on the side, but I don't really need it.'* The correlation was negative and significant (r=-0.26, p=0.000). Thus, somewhat expectedly but still warranting attention, providers who rely more strongly on the income from providing feel more pressured.

Younger providers have the least control over their schedules. Older providers have the most control.

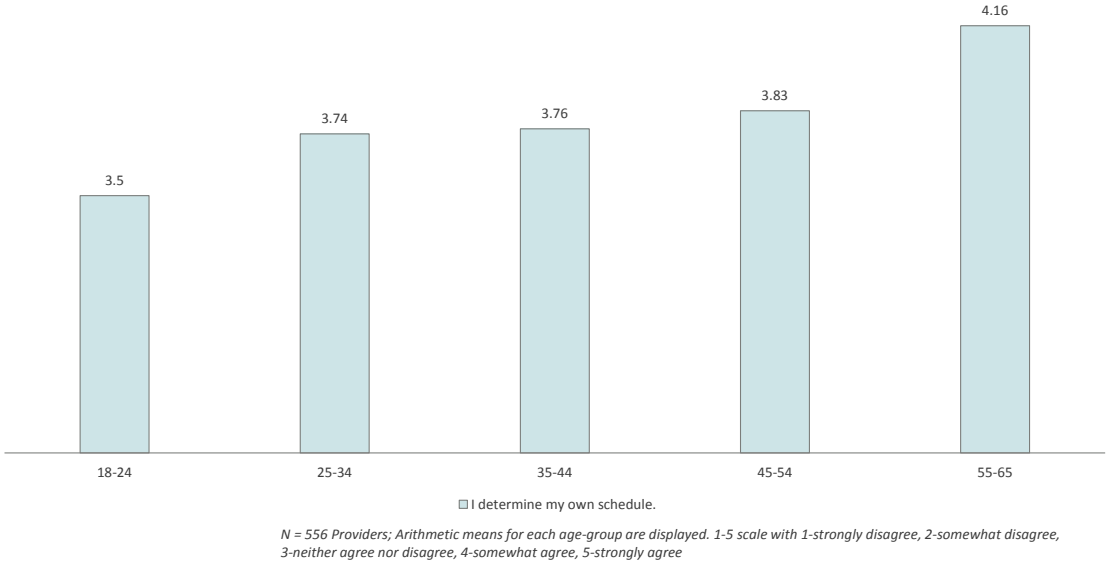
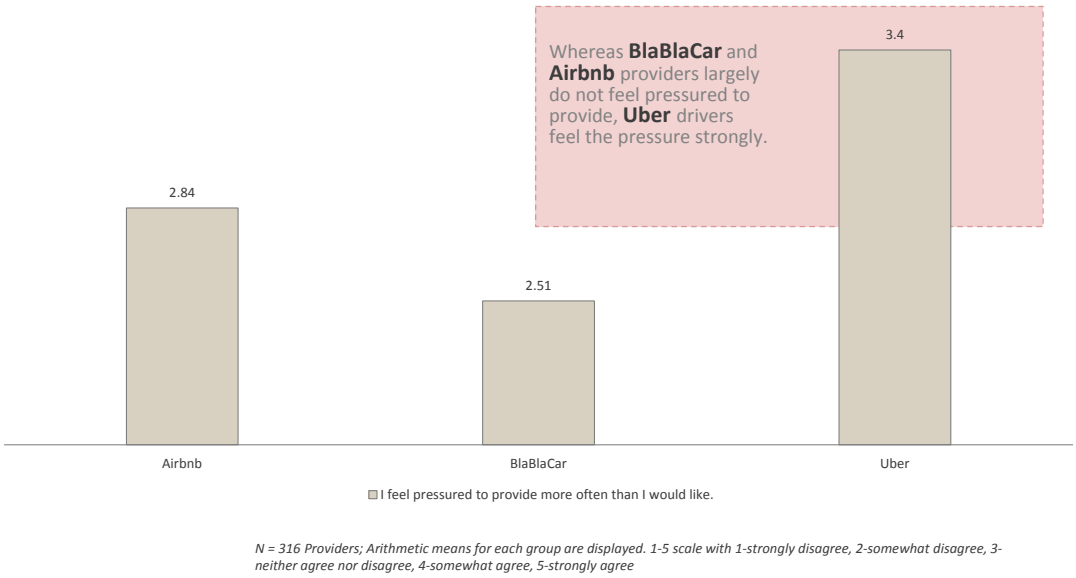


Figure 28: Schedule Determination by age-group; provider sample (N=556)

Turning to age-related factors, we found that there was an upward trend for schedule determination among age groups. Specifically, the younger the providers in our sample were, the less control they reported to have over their own schedule. In the age group 55-65, perceived independence and flexibility over their schedule was high to very high, whereas for the youngest age group it is moderate to high. This might imply that younger providers are more dependent on their income. Looking closer at the data, we found that younger providers in our data set do indeed rely more heavily on their income from providing. The correlation between age and the item *'The income I get from providing on the sharing platform… 1) is my main source of income 2) is a good way of supplementing my main income 3) is just something I earn on the side, but I don't really need it'* was positive and significant (r=0.16, p=0.000). It is clear that for the younger members of the provider group, platforms could make greater steps to provide the promised flexibility.

Uber drivers feel the strongest pressure to provide more often than they would like.

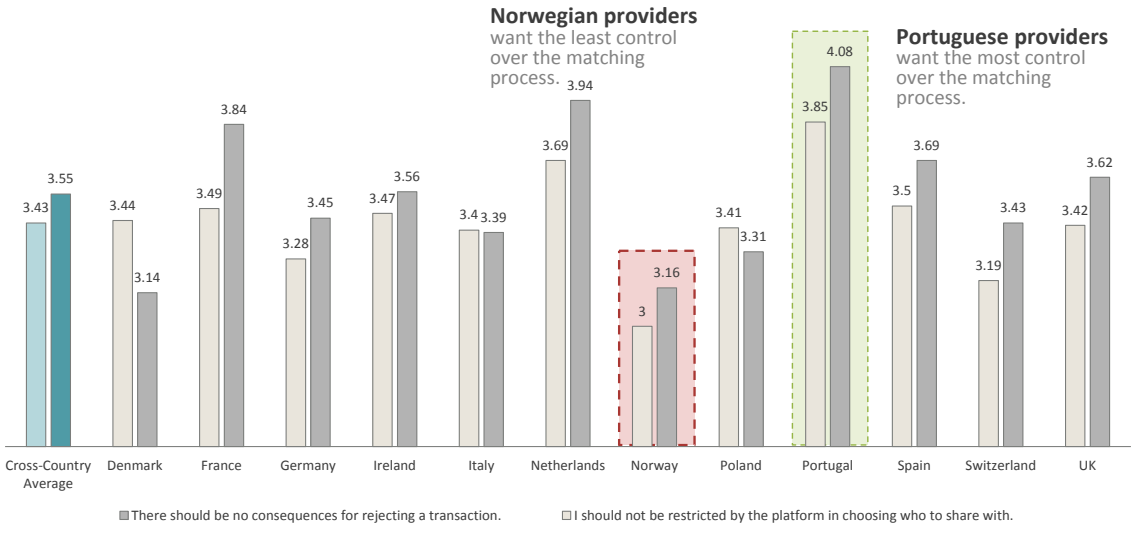


N = 316 Providers; Arithmetic means for each group are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 29: Schedule Pressure by platform-choice; select provider sample (N=316)

On a platform basis, we found that responses differ widely about how much pressure providers felt. Uber drivers in particular reported relatively high levels of pressure to provide more often than they would like. This might point to close algorithmic management and to Uber's approach of monitoring providers closely, also by incentivizing them through surge pricing. By contrast, BlaBlaCar, a more community-oriented and less professionalized platform, pressures providers much less. The high pressure to provide might be a reason for platform churn.

European providers want control over the matching process.



N = 556 Providers; Arithmetic means for each country are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 30: Matching Control by country; provider sample (N=556)

Regarding the matching process, we find that providers in Europe report a strong desire for control. They want to choose their consumer in an unrestricted manner and also want there to be no consequences for that choice. Particularly in Portugal, this desire is very pronounced. Providers in Norway, on the other hand, think to a smaller extent that there should be no consequences for rejecting a transaction and no restrictions in choosing who to share with. Providers in Denmark also disagree more with the statement that there should be no consequences for rejecting a transaction compared with the remaining countries. This might reflect a more collectivist attitude in the Nordic countries among providers.

In order to provide a counter-balance to our questions addressed to providers, we also asked consumers about their desired levels of control in sharing transactions. The following two questions were used to assess this.

Question Number	**Question Wording** Prompt: Please indicate how much you agree or disagree with the following statements.	**Audience**	**Means (Standard Deviation)**
1	*I feel I have control over the matching process.*	Consumers	3.31 (0.85)
2	*I should be allowed to choose a provider based on my own criteria.*	Consumers	3.68 (0.81)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

On average, both statements were answered positively. Thus, consumers report high levels of perceived control but also high levels of desire about choosing their own provider. This desire matches the desire among providers to choose the consumers with whom they will share their belongings. Looking closer at the data, less than half of all consumers (40.8%) agree with the statement that they have control over the matching process. However, actual disagreement is low with only 15% disagreeing and a large proportion choosing the middle category (“neither agree nor disagree”). This ambivalence is potentially due to a lack of awareness or knowledge.

44%
of providers think* they **should not be restricted in choosing who to share with**.

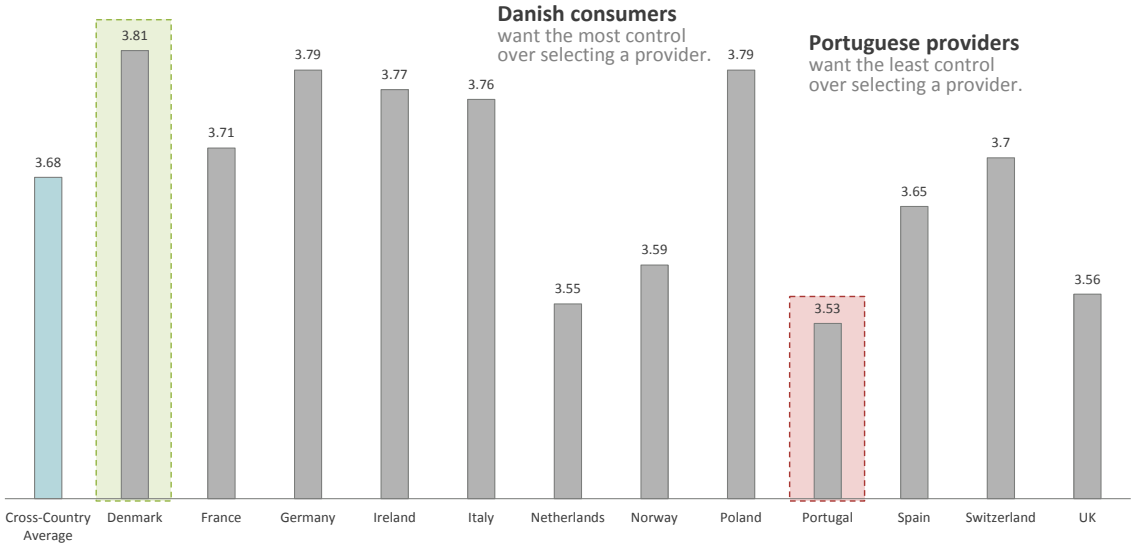
59.5%
of consumers think* they should be **allowed to choose a provider based on their own criteria**.

40.8%
of **consumers feel* they have control over the matching process.**

**Percentage of providers/consumers who selected "somewhat agree" or "strongly agree"*

Consumers, in any case, report slightly higher values (59.5%). This indicates a strong desire for making independent choices. Interestingly, only a minority of providers (44%) think they should not be restricted in choosing who to share with. The majority is either ambivalent or in favor of some level of restrictions. This finding is important as it potentially reflects a certain acceptance of platform restrictions, perhaps to avoid discriminatory behavior.

European consumers want a lot of control over choosing their providers.



N = 1143 Consumers; Arithmetic means for each country are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 31: Matching Control by country; consumer sample (N=1143)

Looking at the consumer side, we found slight differences in the desire for control and independence in choosing providers, when analysed on a country-by-country basis. We found that Danish, German, and Polish consumers wanted the most control over selecting a provider. By contrast, consumers in Portugal, the Netherlands, UK, and Norway report lower levels of desired control. The results for such items were however not highly significant.

9. Collective Action in the Sharing Economy

An important discussion when it comes to labor and the sharing economy, both in academia and policy circles, revolves around collective action (Budd, 2014; Bimber, Flanagin, & Stohl, 2012; Lee et al., 2015; Rogers, 2015). Most digital platforms, including sharing economy platforms, have faced critique due to their functioning as spot markets. Accordingly, this decontextualization of work has been shown to have an impact on the creation of interpersonal connections, essential for the creation of collective action. Problematically, the decentralization of providers is sometimes even built into the framework of the platforms, where the only form of worker rationality between providers is comparison metrics which create a hierarchical space.

As such, it was important for us to assess the opinions of providers about whether they were able to organize collectively. Specifically, are providers organizing and speaking collectively to have their interests represented? Do consumers associate to improve their bargaining position and rights? Should providers and consumers collaborate more closely to increase their power and leverage in the sharing economy?

We were particularly interested in the collective potential of providers, how they organized, and whether they connected with each other online. We therefore first asked providers about their opinions about the topic of collective action. The first item assessed the perceived ease of collective organization, assessed with the item *'It is easy for providers to organize collectively*'.

The second item assessed their actual usage, assessed with the item '*I use online communities to connect with other providers*'. While much collective action can occur offline, online connectivity is a prominent element of collective action, particularly among digital laborers. It could thus provide a useful heuristic for overall collective activity and a conception of a collective identity among providers.

Question Number	**Question Wording** Prompt: Please indicate how much you agree or disagree with the following statements.	**Audience**	**Means (Standard Deviation)**
1	*It is easy for providers to organize collectively.*	Providers	3.13 (1.03)
2	*I use online communities to connect with other providers.*	Providers	3.02 (1.13)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

Opinions about the difficulty of collective organization and the use of online communities are mixed, with slight tendencies of positive rather than negative replies. This suggests an overall ambivalence towards collective action among providers, providing a counter narrative to media and academic reports about a strongly engaged provider-group. However, the response pattern shows that providers are quite divided on this issue and far from thinking collective organization is easy and frequently done.

35%
of providers use **online communities to connect with other providers*.**

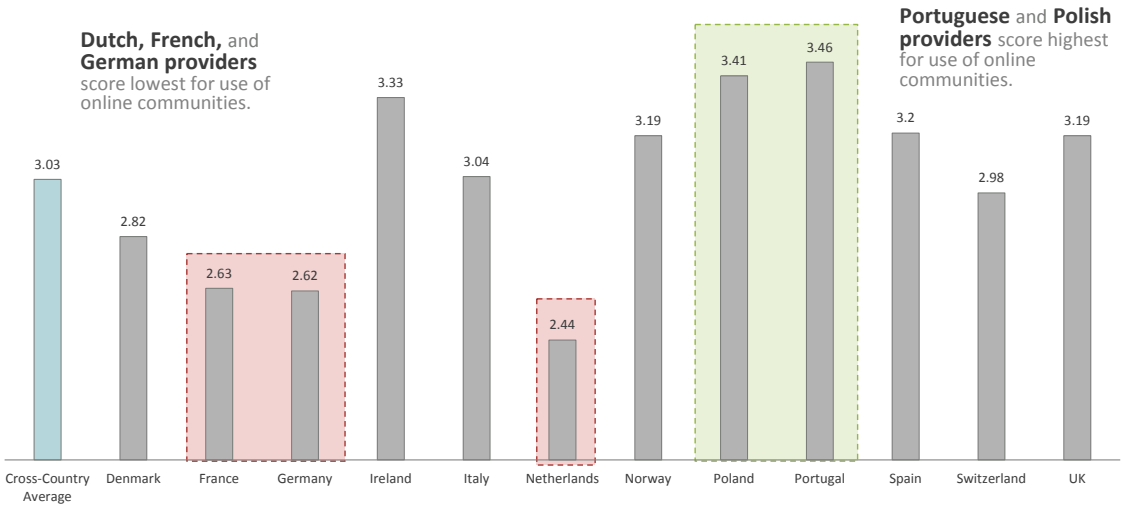
30.9%
of **female providers** use online communities to connect with other providers*.

35.5%
of **male providers** use online communities to connect with other providers*.

**Percentage of providers who selected "somewhat agree" or "strongly agree"*

However, looking closer across all platforms, it is still striking that slightly more than one third of all providers reported using online communities to connect with other providers. Online communities are able to provide support, advice, and a sense of connection among providers for whom providing can be a lonely task. Platform architectures are designed to largely prevent the connectivity of providers, with most platforms not providing any form of chat-room or forum. It is thus through online communities where providers are able to meet up. This is also important as informal methods of collectivity, through online communities, are often a pre-cursor for harder forms of collectivity. Our results further showed a slight gender difference in terms of usage of online communities, with male providers using online communities more often than female providers.

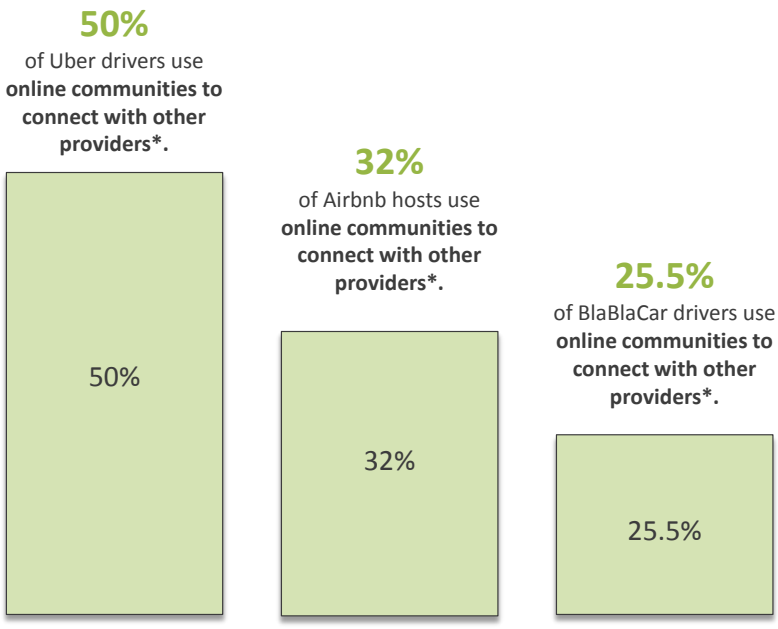
Use of online communities among providers varies strongly by country.



N = 556 Providers; Arithmetic means for each country are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 32: Online Communities by country; provider sample (N=556)

We found substantial and significant country differences in the use of online communities among providers (F=3.72, p=0.000), which may be attributable to different language contexts and regionally specific dominant platforms. In general, providers in Poland and Portugal (report to) rely most on online communities, while those in the Netherlands, France, and Germany do so least. Roughly half of the countries lie below the mid-point of the scale (3.0) on average, while the other half lies above. However, we do not see a strong regional pattern in this instance and the findings would warrant more in-depth investigation, for example through qualitative interviews.



**Percentage of providers who selected "somewhat agree" or "strongly agree"*

More enlightening are the findings when differentiating the results by platform. Not surprisingly, providers on different platforms have different patterns of collective action, including the use of online communities. Among the three major platforms in our data, Uber drivers rely by far the most on online communities, while BlaBlaCar drivers do so least. This might have to do with Uber being more professionalized and monetized, leading to greater amounts of community discussions on how to best operate the system. This could also suggest a far greater perception of Uber drivers, amongst themselves, as a collective group. In light of the ongoing attempts among Uber drivers to collectivize across different contexts, this finding is not surprising.

What is more interesting is the degree to which BlaBlaCar drivers use online communities to connect with other providers, which suggests that more than a quarter of BlaBlaCar drivers have some form of collective conceptualization. BlaBlaCar's model attempts to restrict profiting from sharing transactions, suggesting that the online communities are not used to share information on profit maximization, as many Uber communities are used for. To explore the role of collective action further, we posed a question to providers, consumers, and aware non-users about whether they thought providers in the sharing economy should have a trade union. We asked for agreement on a 5-point Likert scale about the degree to which they agreed with the statement *'Providers in the sharing economy should have a trade union'*.

Question Number	Question Wording Prompt: Please indicate how much you agree or disagree with the following statements.	Audience	Means (Standard Deviation)
1	*Providers in the sharing economy should have a trade union.*	Providers, consumers, aware non-users	3.05 (1.02)
Response options: 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree			

We found that opinions about whether providers should have a trade union are mixed. On average, there is only a slight agreement with the statement. Among the respondents who have an opinion, a slightly higher proportion is in favor of providers having a trade union (28.5% in favor vs. 21.5% not in favor). However, a large proportion of respondents is undecided, with 51% of respondents selecting the middle category "neither agree nor disagree". This indicates that many users and non-users might not have formed an opinion, possibly due to lack of opinion or awareness of the issue. It also indicates that there is a lot less of a personal investment about the issue than seemingly the case, or among small sub-sections of the user-base.

Non-Users support provider unionization more than users.

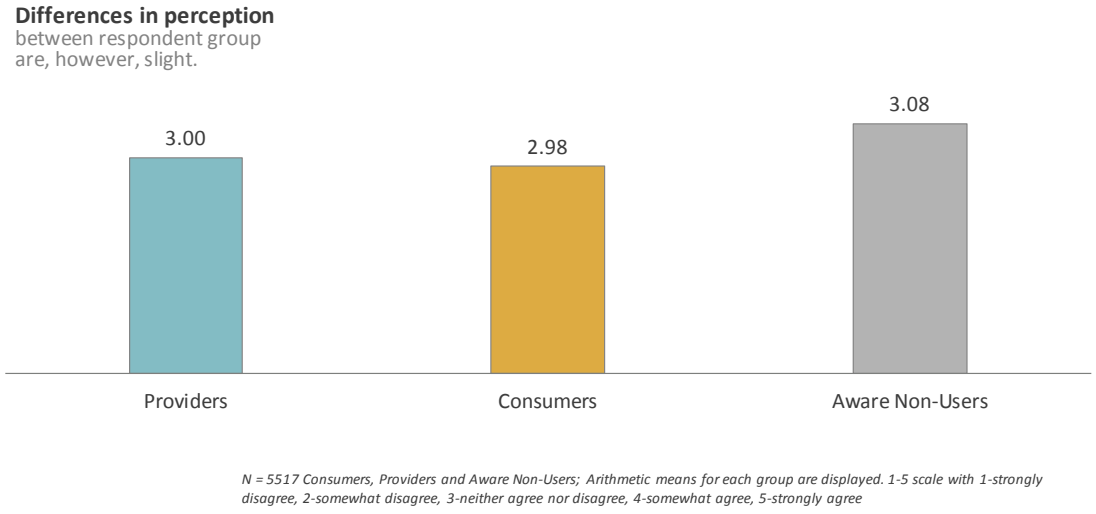


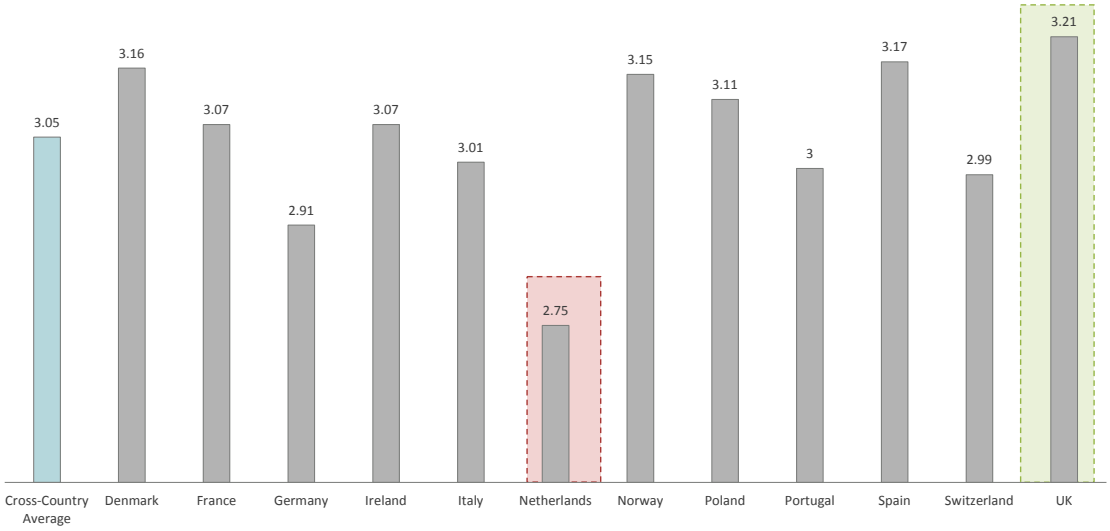
Figure 33: Unionization Support by use-modality; combined sample of users and aware non-users (N=5517)

The findings overall show cautious, but by no means universal, support for a trade union for providers. However, when differentiating by use-modality, comparing providers, consumers, and aware non-users, we find significant differences (F=5.48, p=0.004) in their attitudes towards provider unionization. Interestingly, aware non-users are most sympathetic to the cause of providers having a trade union. Providers themselves, however, are highly divided. This could also

be due to frequency of use, as providers who offer their assets less frequently do not consider the need for a union. The correlation between frequency of use and unionization was significant (r=0.11, p=0.000), showing that providers who provide more frequently have higher desires of unionization.

Of all groups, consumers are least positive towards providers having a trade union. This is interesting since a provider trade union among providers could lead to higher prices for consumers. Since many consumers are drawn to the sharing economy for its ability to offer lower priced access to assets, the potential for higher prices in the future may make consumers disinclined to support a trade union. This result, although slight, thus suggests that consumers are potentially self-interested.

Dutch respondents oppose unionization most strongly; British respondents are most supportive.



N = 5517 Consumers, Providers and Aware Non-Users; Arithmetic means for each country are displayed. 1-5 scale with 1-strongly disagree, 2-somewhat disagree, 3-neither agree nor disagree, 4-somewhat agree, 5-strongly agree

Figure 34: Unionization Support by country; combined user and aware non-user sample (N=5517)

Countries differ in their stance and culture towards trade unions. Nordic countries tend to be quite union-friendly, while Anglo-Saxon countries are more liberal and anti-union. However, this is only partly reflected in our data about the sharing economy. In fact, respondents show the most support for unionization in the UK, whereas those in the Netherlands are least supportive. The Nordic countries – Denmark and Norway – score relatively high and above average as well. German-speaking countries are on the lower end of the spectrum, potentially reflecting weaker support for unionization, at least in Switzerland.

10. Platform Narratives in the Sharing Economy

As a mechanism for more 'informal' self-regulation, platforms use narratives and self-framing as an attempt to position themselves in relation to legal, regulatory, and business ambitions. Framing is a deliberative communicative process for positioning on important topics such as: What is the platform for? How is the employment relationship characterized? Indeed, there is often a dissonance between the platform narratives and experienced reality. The term 'sharing' for instance, has been co-opted by many platforms which seemingly offer no sharing mechanism (Cherry, 2016; Codagnone, Abadie, & Biagi, 2016). Moreover, there are many arguments about whether platforms act merely as intermediaries, or more involved agents in the process (Smith & Leberstein, 2015). Similarly, there is an ongoing debate about whether providers are to be considered employees or independent contractors (Cockayne, 2016; Schor & Attwood-Charles, 2017).

To assess whether platforms' self-descriptions match with user and non-user perceptions, we firstly wanted to assess the view of provider status. Ride-hailing drivers, in particular, have lobbied for recognition as employees in order to obtain the attendant rights such as sick pay and operational costs. We thus queried providers, consumers, and aware non-users about whether they perceived providers as either '*employees who work directly for the sharing platform*' or '*independent contractors who use the sharing platform to connect to potential customers*'.

Question Number	Question Wording	Context	% a) % b)
1	*In your opinion, how should providers be classed?* a) As employees who work directly for the sharing platform. b) As independent contractors who use the sharing platform to connect to potential customers.	Providers	35.1 64.9

We found that respondents, including both users and non-users, overall perceived providers primarily as independent contractors rather than as employees working for the sharing platform. This closely accords with the arguments of sharing platforms. However, a substantial minority of more than a third of all respondents still thinks that providers should be classified as employees. Such a result indicates that the topic is far from decided and deserves to be given continued attention, particularly as the decision over nomenclature has far-reaching implications. Against our expectations, we found no significant difference on a platform-basis.

Below we present some of the further findings. In sum, we found that on the topic of provider identification, providers had the highest perception of themselves as employees, whereas non-users had the lowest perception of them as employees. We further found clear country differences, with the Nordic countries, such as Norway and Denmark whose labor context is marked by strong labor protections, being the most likely to view providers as employees.

Providers have the highest perception of themselves as employees. Non-users have the lowest perception of providers as employees.

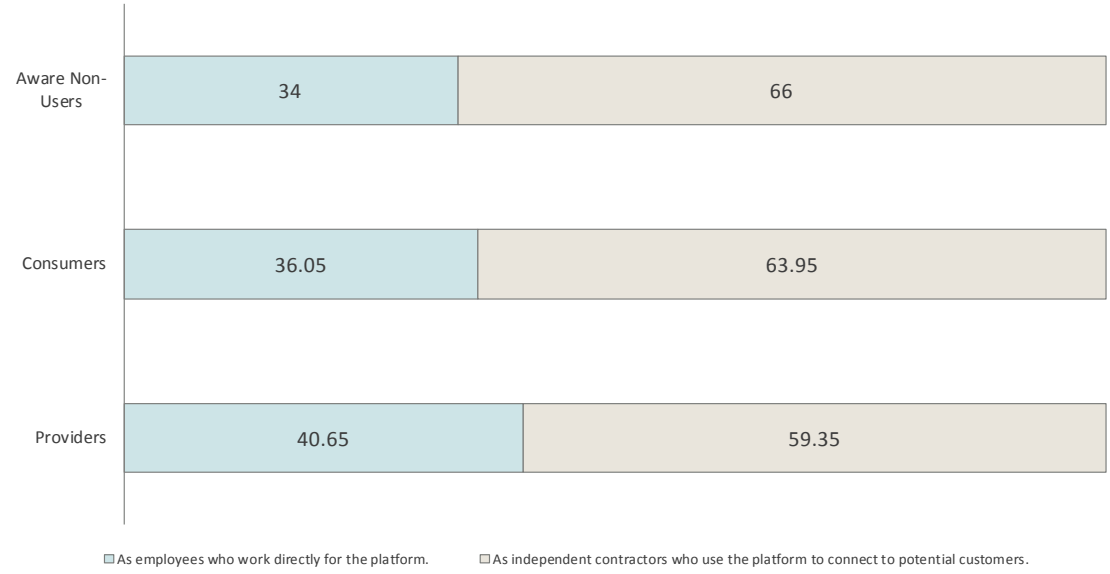


Figure 35: *Provider Narratives by use-modality; combined user and aware non-user sample (N=5517)*

On the topic of provider classification, we disaggregated the responses along use-modality. We found that providers are the most likely to think of themselves as employees. Least likely to have such an opinion were aware non-users. In light of the above finding, that aware non-users were the most likely to support unionization, this finding is striking. While a majority of providers perceive themselves as independent contractors rather than employees, the finding that almost 41% of providers view themselves as employees resonates strongly with current discussions about provider classification.

We further found that, among providers, self-categorization as employees is also related to the frequency of provision. The correlation (Spearman's Rho) between frequency of provision and provider self-categorization is negative (r=-0.21, p=0.000). The more frequently providers provide, the more they see themselves as employees rather than independent contractors.

Norwegians have strongest perceptions of providers as employees; The Dutch have the weakest perceptions of providers as employees.

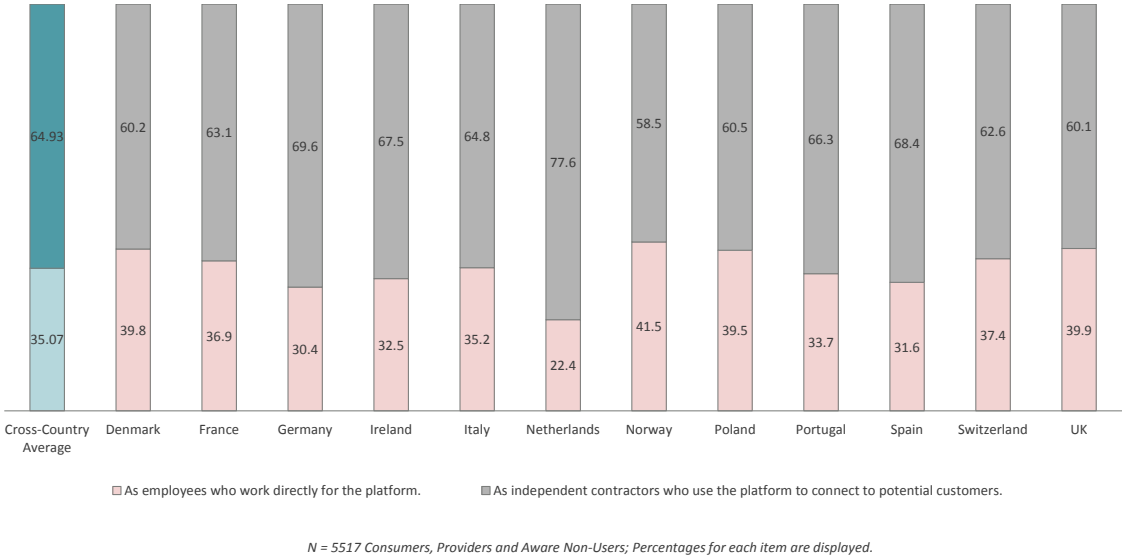


Figure 36: Provider Narratives by country; combined user and aware non-user sample (N=5517)

For provider classification, we found significant country differences (F=5.60, p=0.000). Along regional trends of collectivism and labor protection, sharing economy participants and aware non-users in Norway have the highest values for seeing providers as employees rather than independent contractors. On the other hand, respondents in Netherlands score lowest on this question.

The role of the company as either a software company or more traditional company is also under question. Accordingly, for the two largest sectors, which reflect the two largest area of dispute, we also asked providers, consumers, and aware non-users whether they viewed the platforms as primarily software companies or their more traditional alternatives.

Question Number	Question Wording	Context	% a) % b)
1	*Which statement best describes your view of ride-hailing platforms like Uber?* a) They are primarily software companies. b) They are primarily transportation companies.	Transportation	33.6 66.4
2	*Which statement best describes your view of home-sharing platforms like Uber?* a) They are primarily software companies. b) They are primarily hospitality companies.	Hospitality	35.0 65.0

On the topic of platform narratives, both home-sharing and ride-hailing platforms were perceived as more than just software companies, with a substantial majority thinking of them as transportation (66.4%) and hospitality (65%) companies. This suggests that users and non-users would both expect a certain level of involvement and oversight on behalf of the platform in the sharing experience. Given the strong branded nature of the platforms, as well as their assurances of a certain quality or experience, it is not surprising that respondents view the platforms as being more involved.

Furthermore, the extension of certain big players in the sharing economy into other adjacent areas argues for a recognition of them as more than just software platforms. Uber's attempt to enter the self-driving car industry, as well as their transition into logistics and goods-transportation, would justify a conceptualization of them as a 'transportation' company which just happens to operate via sophisticated software. Similarly, Airbnb's movement into adjacent areas, such as offering 'experiences', as well as their hands-on approach to the marketing of certain properties, argues for them being viewed as more of a holistic hospitality company, rather than merely a software company that matches providers with consumers.

Providers have the highest perceptions of ride-hailing platforms as primarily software companies.

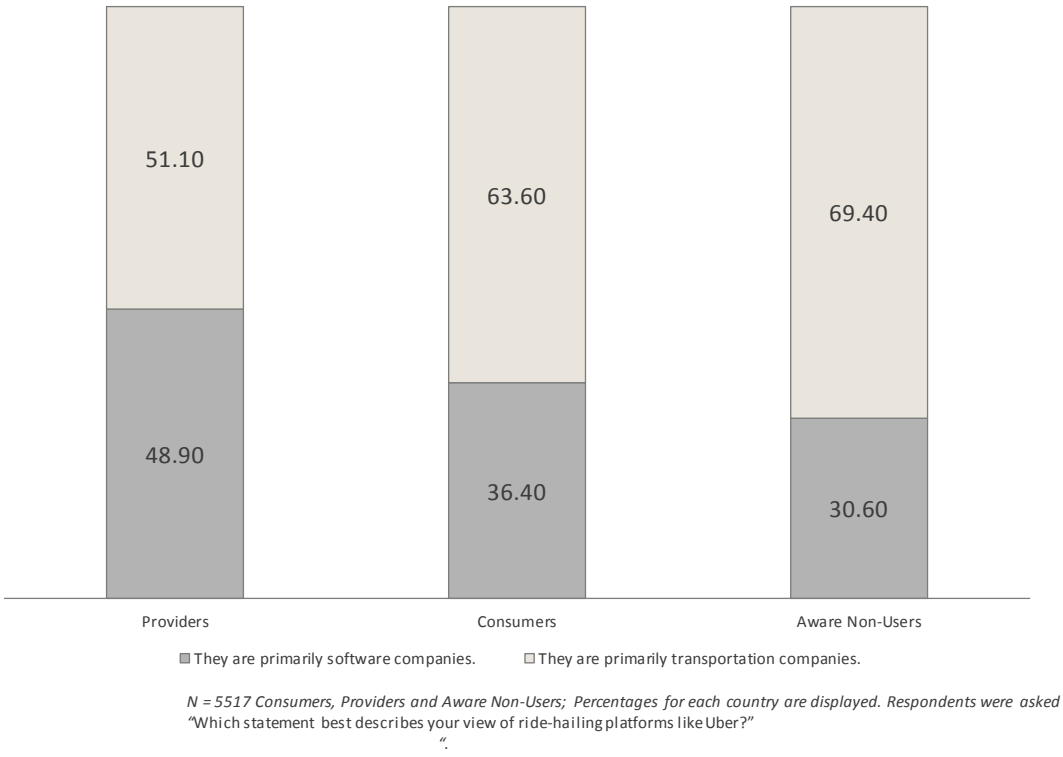


Figure 37: Ride-Hailing Narratives by use-modality; combined sample of users and aware non-users (N=5517)

Regarding the perception of platforms, we were interested in differences between providers, consumers, and aware non-users. It turned out that there were significant differences (Chi-Square=78.23, p=0.000) between the three groups. Interestingly, providers who are probably

most immersed in the sharing economy, see ride-hailing platforms like Uber most as software companies, rather than as transportation companies. This could have to do with their first-hand experience of algorithmic management and control, so that they see themselves as the primary provider of the service. Almost half of all providers see ride-hailing platforms primarily as software companies.

Among aware non-users and consumers this share is substantially lower. About a third of consumers and aware non-users perceives ride-hailing platforms as primarily software companies, while two thirds see them as transportation providers. Thus, the public perception of ride-hailing companies is somehow opposed to the self-narrative of the platforms.

Polish and Italian respondents have the highest perceptions of ride-hailing platforms as primarily software companies.

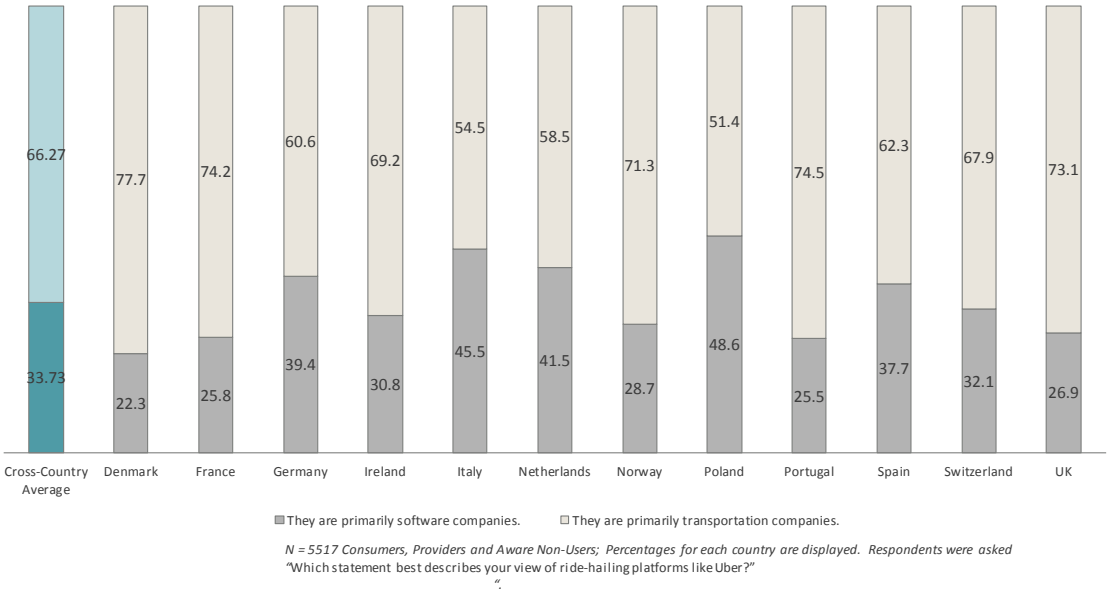


Figure 38: Ride-hailing Narratives by country; combined sample of users and aware non-users (N=5517)

Whereas the cross-country average reflects a roughly 2/3rds agreement that platforms are primarily transportation companies, there is a considerable difference in perception across countries. In Portugal (25.5%) and Denmark (22.3%), only a comparatively small minority thinks that ride-hailing platforms are primarily software companies, with the vast majority perceiving platforms as traditional transportation companies. By contrast, the proportions in Italy and Poland are twice as high, indicating a higher agreement with platform narratives.

Men have the highest perceptions of ride-hailing platforms as primarily software companies.

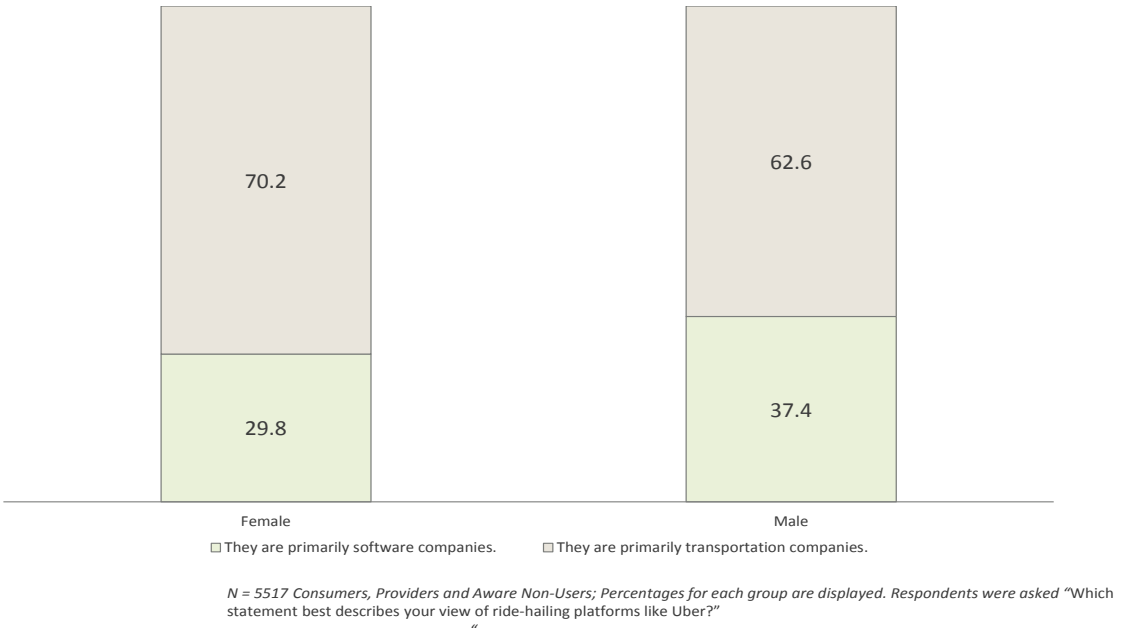


Figure 39: Ride-hailing narratives by gender; combined sample of users and aware non-users (N=5517)

For ride-hailing companies, we found significant gender differences in terms of their perception as primarily software or transportation companies (t=6.02, p=0.000). Women see ride-hailing platforms more as transportation companies, while men perceive them more strongly as software companies.

Providers have the highest perceptions of home-sharing platforms as software companies.

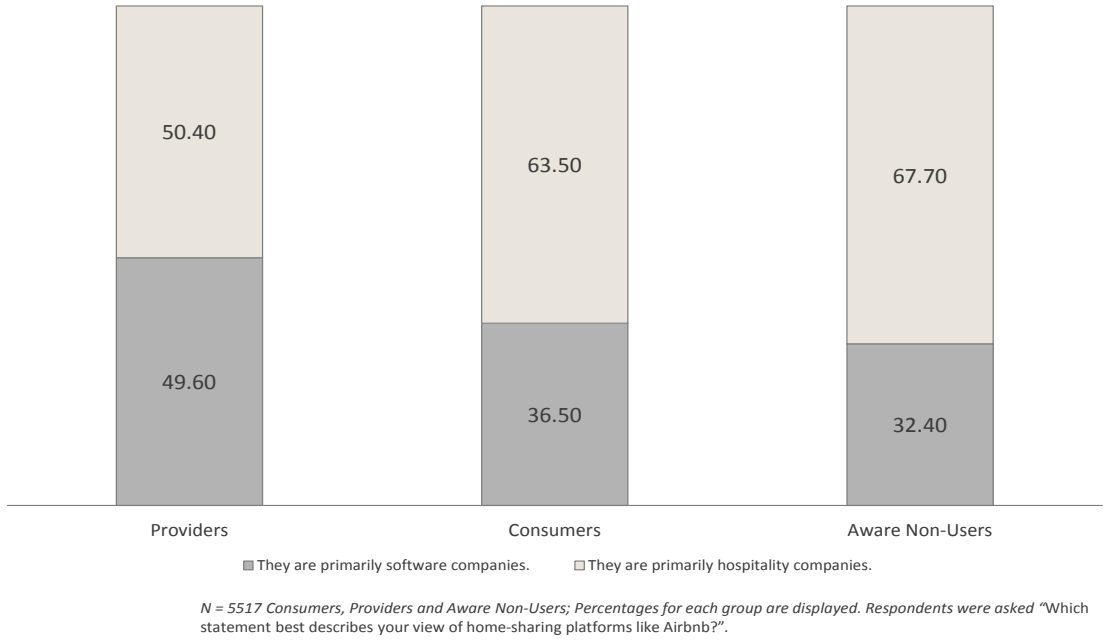


Figure 40: Home-sharing Narratives by use-modality; combined sample of users and aware non-users (N=5517)

Turning to home-sharing platforms such as Airbnb and their perception based on use-modality, we find a similar pattern to before. Again, the differences between the three groups are significant (Chi-Square=65.85, p=0.000) and large. Like before, those most immersed in the sharing economy likely see home-sharing platforms like Airbnb most as software companies rather than hospitality companies.

Almost half of all providers see home-sharing platforms primarily as software companies. Among aware non-users and consumers this share is substantially lower. About a third of consumers and aware non-users perceive home-sharing platforms as primarily software companies, while two thirds see them as hospitality companies. Thus, the public perception of home-sharing companies is somehow opposed to the self-narrative of the platforms.

Polish respondents have the highest perceptions of home-sharing platforms as primarily software companies.

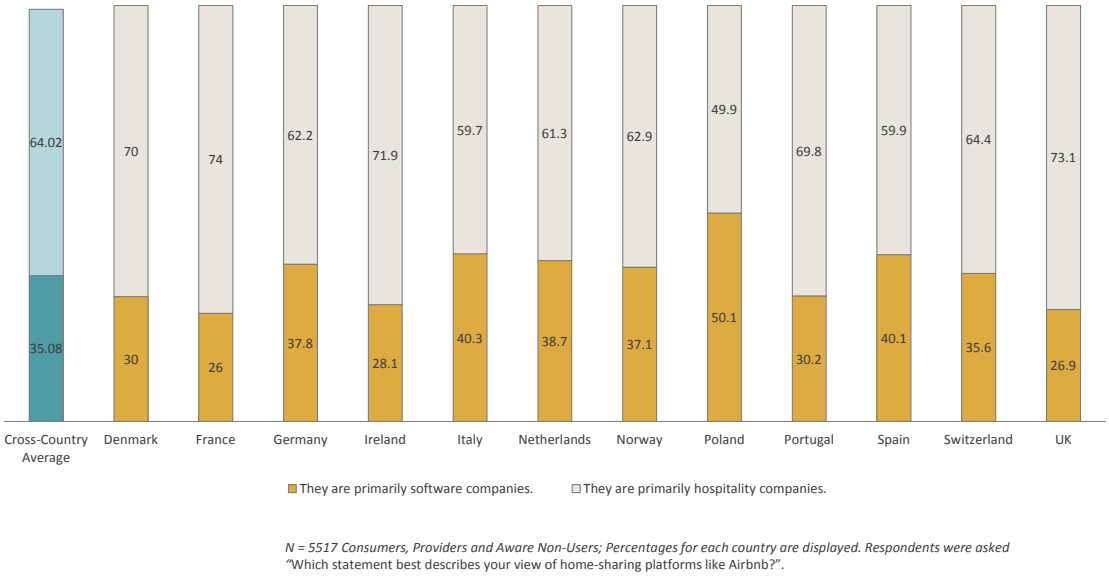
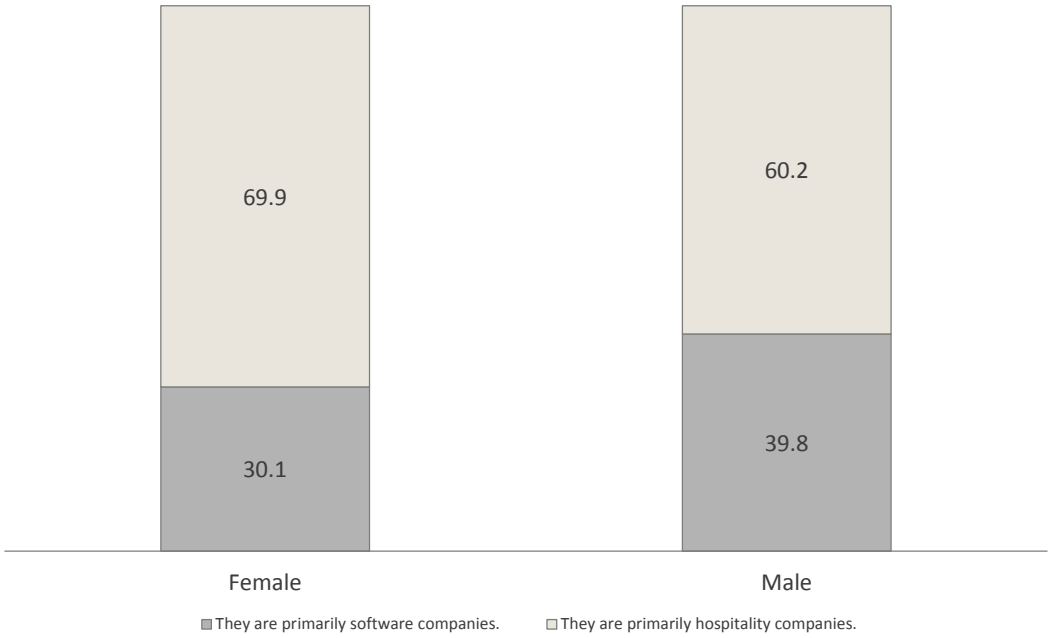


Figure 41: Home-sharing Narratives by country; combined sample of users and aware non-users (N=5517)

In France and the UK, only a comparatively small minority thinks that home-sharing platforms are primarily software companies. By contrast, the proportions in Italy, Poland, and Spain are much higher. This finding might be partly caused by different dominant platforms in each region. Comparing the country differences for home-sharing to those for ride-hailing, the differences are somewhat less pronounced, which might be due to a larger homogeneity of services and dominance of Airbnb as the primary platform – whereas for ride-hailing, Uber and BlaBlaCar are both large platforms in our survey.

Men have the highest perceptions of home-sharing platforms as primarily software companies.



*N = 5517 Consumers, Providers and Aware Non-Users; Percentages for each group are displayed. Respondents were asked "*Which statement best describes your view of home-sharing platforms like Airbnb?".

Figure 42: Home-sharing Narratives by gender; combined sample of users and aware non-users (N=5517)

In line with the results on ride-hailing, we found substantial gender differences in the perception of home-sharing platforms as primarily software rather than hospitality companies. Again, women see home-sharing platforms more as hospitality companies, while men perceive them more strongly as software companies.

11. Regulating the Sharing Economy

Regulation is an important topic in debates about the sharing economy. Questions surrounding regulatory oversight are of continuing importance for sharing platforms, since regulation, at a local and regional level, directly influences their uptake, expansion, and economic potential. The novel nature of sharing economy platforms within the economic landscape, in addition to their frequently trans-national nature, has created a scattered regulatory backdrop against which companies have been able to expand with varied levels of resistance and compliance (Koopman Mitchell, & Thierer, 2015; Martin, 2016; Quattrone, Proserpio, Quercia, Capra, & Musolesi, 2016; Rauch & Schleicher, 2015).

There exists major disagreement over whether sharing economy companies should face increased or decreased regulatory attention. Attempts to ban disruptive sharing services like Airbnb could be a disincentive to innovation and protect oligopolistic markets, but more receptive policies could, in booming destinations, lead to harmful commercialization (Oskam & Boswijk, 2016).

The last section of the power-related questions in the survey accordingly focuses on regulation. Here, we were interested in respondents' opinion on how much the sharing economy in Europe should be regulated. We included two main questions to assess regulation. The first question is shown in the following table and was asked to providers, consumers, aware non-users, and non-aware non-users. We decided to ask this question to all respondents, even those who had not heard of the sharing economy, to assess the broadest possible opinions.

Question Number	Wording	% a) % b)
1	*Some cities are currently debating how to best regulate the sharing economy. Which statement comes closest to your view on the subject?* a) These services should be required to follow the same rules and regulations as established companies. b) These services should not be required to follow the same rules and regulations as established companies.	73.9 26.1

These results were very striking and have significant implications for understanding the desirability of regulation. Opposing the strong platform narrative that platforms should be beyond certain regulations, or even that new regulations should be introduced to better fit their 'new' business models, a vast majority (73.9%) of our respondents agreed that sharing economy services should be required to follow the same rules and regulations as established companies. The idea of platform exceptionalism, that they are beyond regulatory oversight, does not therefore correspond with the European perspective.

On a more fine-grained analysis, we find significant country differences, with the UK being the most pro-regulation, and Italy being the least supportive of regulation. When differentiating by

use-modality, we found that users were more likely to be open to platforms not being bound by existing legislation. However, across use-modality, there remained a strong agreement that they should follow existing rules and regulations. We further found significant differences on an age-basis, where younger Europeans were more supportive of platforms not being bound by existing regulations, whereas older Europeans were less supportive. Finally, we differentiated by platform and found that Uber users, by a considerable margin, were the most supportive of platforms following existing rules and regulations.

Three quarters of Europeans think that sharing economy companies should follow the same rules and regulations as established companies.

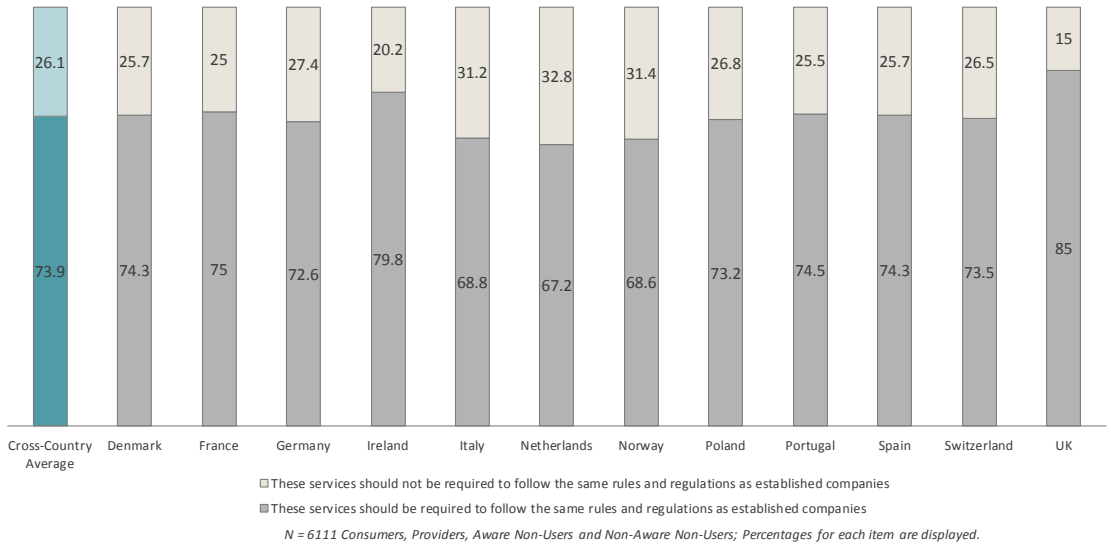


Figure 43: Regulation by country; total sample (N=6111)

Across all countries considered, there was agreement about whether sharing economy companies should follow the same rules and regulations as established companies. Overall, most respondents agreed with this statement. Particularly high levels of agreement were found in the UK and Ireland. Respondents in the Netherlands, Norway, and Italy agreed the least, with the highest proportion of respondents (of around one third) who thought that there should be special rules and regulations for sharing economy companies. The finding for the Netherlands is perhaps the most surprising, given the high regulatory debates occurring in Amsterdam with regard to Airbnb. However, the results show that when surveying with a representative sample, media narratives and expectations are often contradicted.

Providers are the most supportive of sharing economy platforms not following the same rules and regulations as established companies.

Figure 44: Regulation by use-modality; total sample (N=6111)

Interestingly, providers are most open-minded towards sharing economy companies having separate rules and regulations from established companies. More than three fourth of all aware non-users, by contrast, think sharing economy companies should follow established companies when it comes to rules and regulations. Non-aware non-users and consumers scored the same, with 7 out of 10 thinking that sharing economy platforms should follow the same rules and regulations as established companies.

Younger Europeans are more supportive of platforms not following the same rules and regulations than older Europeans.

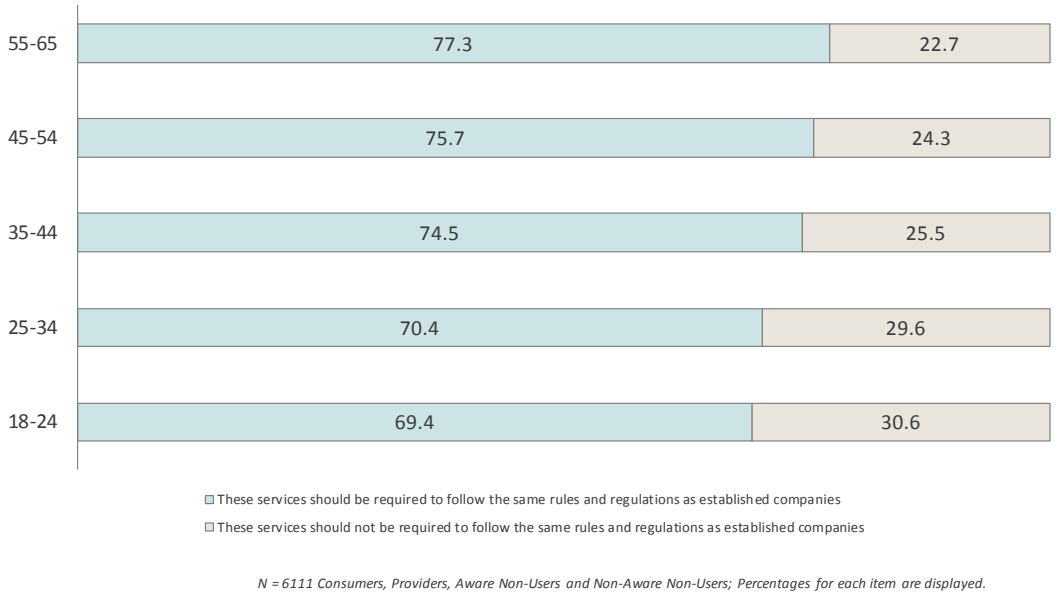


Figure 45: Regulation by age-group; total sample (N=6111)

We found an age effect in the perception of regulation, with older respondents pushing most for the same treatment of sharing economy companies and established companies. Younger respondents, on the other hand, are more lenient towards sharing economy companies and have higher proportions who think that there should be different treatment. The age differences are significant (F=6.71, p=0.000).

Uber users are more supportive of platforms following the same rules and regulations as established companies.

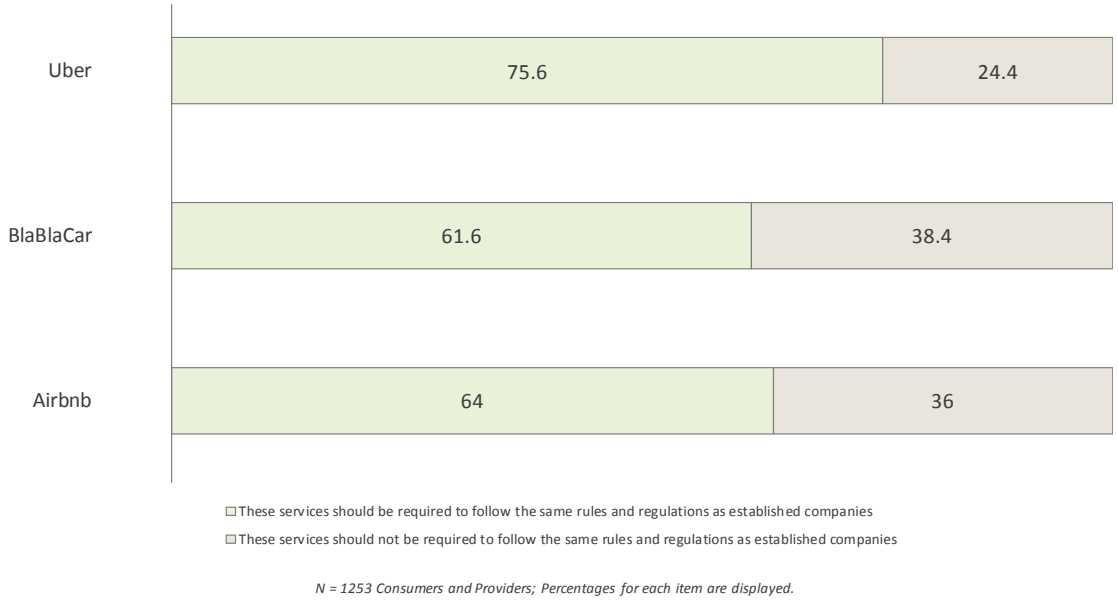


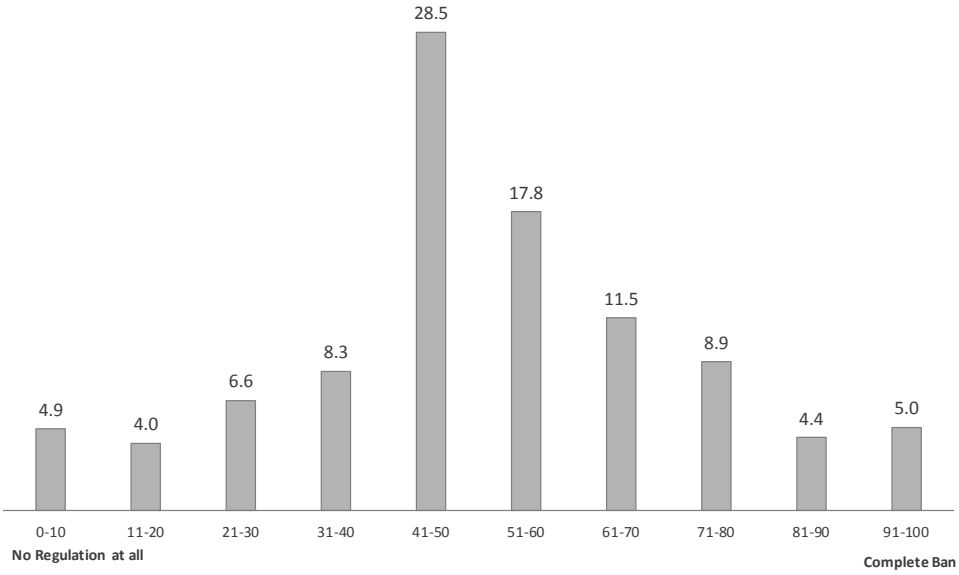
Figure 46: Regulation by platform-choice; select user sample (N=1253)

Next to age, the most frequently used platform is an important determinant in respondents' perception of regulation. Uber passengers and drivers, in particular, support the equal treatment of sharing economy companies and established companies in terms of regulations and rules. Current debates about provider classification and the legal status of ride-hailing companies might have influenced this finding. By contrast, BlaBlaCar passengers and drivers are most lenient in assessing sharing economy companies. Here, almost 4 out of 10 respondents think that there should be a different regulatory approach towards sharing economy companies compared with established companies. As a corresponding question to the above question on existing rules and regulations, we asked respondents about their regulatory desires with a more open opportunity to respond. Respondents could use a slider from 0 ("*No regulation at all*") to 100 ("*Complete ban*") to indicate their desired level of regulation.

Question Number	Wording
1	*How much regulation should there be towards the sharing economy? 0 means no regulation at all and 100 means a complete ban*

For this question, the arithmetic mean was 52.24 (SD=21.17) and the median 50.00. 20% of all respondents (1226) placed themselves exactly in the middle, on 50. Thus, a fifth of all respondents think that there should be a middle ground of regulation. This result, however, might also reflect a lack of confidence in answering the question with a strong opinion. Only 1% (63 respondents) selected 0 and opted for no regulation at all, whereas 3% (192 respondents) selected 100, opting for a complete ban. On a more fine-grained basis, we again found that there was a trend towards agreement. However, a large proportion of respondents were in the middle-ground. Again, aligning with the results above, Uber users were the most in favor of regulatory oversight.

Respondents prefer moderate regulation of the sharing economy. Only a small minority wants no regulation at all or a complete ban.



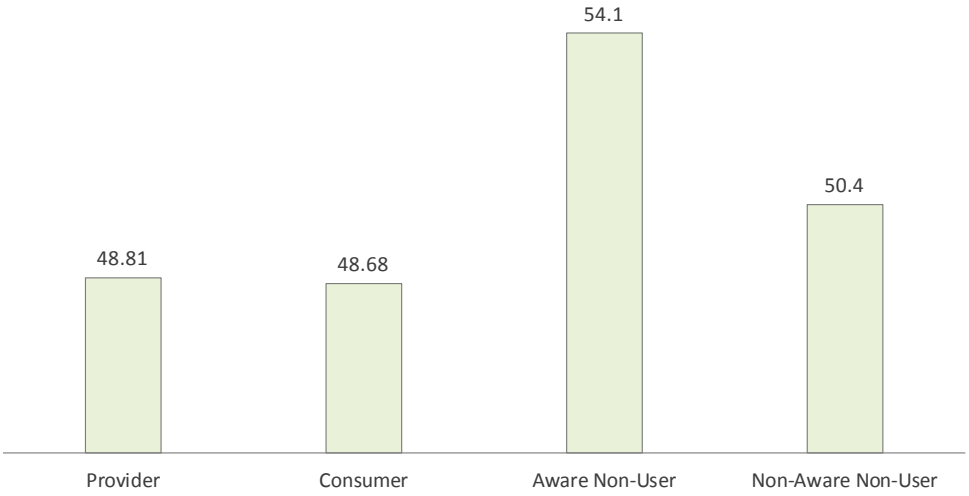
*N = 5517 Consumers, Providers and Aware Non-Users; Percentages for each country are displayed. Respondents were asked "*How much regulation should there be towards the sharing economy? 0 means no regulation at all and 100 means a complete ban."

Figure 47: Regulation Distribution; combined sample of users and aware non-users (N=5517)

The overall desire for regulation of the sharing economy is moderate. Only a small minority prefers a laissez-faire approach and more respondents are in favour of substantial regulation (e.g., in the range 51-80). Thus, the findings allow a reading that the public opinion on regulation of the sharing economy in Europe is supportive of a middle-ground between laissez-faire and complete ban, and tending more towards regulation.

Aware Non-Users want most regulation and Consumers want the least regulation.

Aware non-users have higher desire for regulation than non-aware non-users. These, in turn, have higher desire for regulation than users. Consumers and providers score about the same.

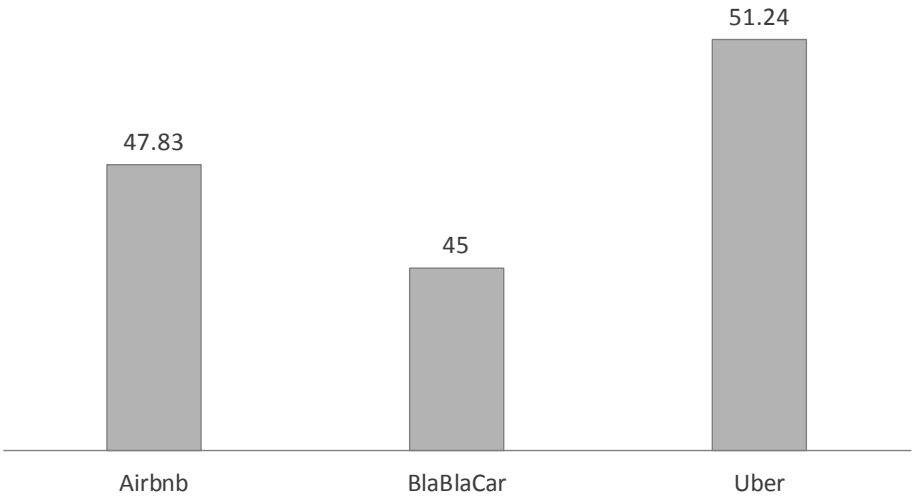


*N = 6111 Consumers, Providers, Aware Non-Users and Non-Aware Non-Users; Percentages for each item are displayed. Respondents were asked "*How much regulation should there be towards the sharing economy? 0 means no regulation at all and 100 means a complete ban."

***Figure 48**: Regulation Distribution; total sample (N=6111)*

The differences between providers, consumers, aware non-users and non-aware non-users are significant (F=27.26, p=0.000). This finding provides important insight into attitudes towards regulation. Firstly, it suggests that those who are aware of the sharing economy, but have not benefitted from it, want the most regulation and control.

Uber users want most regulation and BlaBlaCar users want the least regulation.



N = 1253 Consumers and Providers; Percentages for each item are displayed. Respondents were asked "How much regulation should there be towards the sharing economy? 0 means no regulation at all and 100 means a complete ban".

***Figure 49**: Regulation by platform-choice; select user sample (N=1253)*

Further differentiating on a platform-basis, we found that Uber users were substantially more supportive of regulation than BlaBlaCar users, scoring more than 5 points higher on average. Indeed, the difference between platforms is significant (F=5.87, p=0.001).

12. Discussion and Conclusions

In this report, we presented the results of our investigation into the power dynamics of the sharing economy, as perceived by a mixture of users and non-users across 12 European countries. It must be stressed, however, that these findings are complimentary to the demographic results, which are to be found in the Appendix below, and to the sister reports on participation in the sharing economy (Andreotti, Anselmi, Eichhorn, Hoffmann, Jürss, & Micheli, 2017) and privacy in the sharing economy (Ranzini, Etter, & Vermeulen, 2017). The topics covered in this report are largely aligned with the earlier in-depth literature review on power in the sharing economy (Newlands, Lutz, & Fieseler, 2017). As such, much of the grounding of the report's research context is to be found there.

Since most of the main topics covered in the report, such as emotional labor, the rating/review system, pricing, terms and conditions, platform control, regulation, and dispute resolution, affect sharing economy participants rather than non-participants, this report had a strong focus on those already familiar with the sharing economy. Accordingly, most of the items on the topics of power were addressed only to a sub-set of our sample. For every analysis which excludes non-participants, the sample is thus already filtered through respondents' decision about participation in the first place (Andreotti et al., 2017).

We found, in general, cautiously optimistic attitudes among sharing economy users. However, the results revealed a high degree of ambivalence towards many issues for which users had not yet formed an opinion. Such a finding acts as a counterbalance to strong media and academic narratives for whom debates about the sharing economy are highly charged and often partisan. Indeed, a first key overall take-away from our findings is therefore that the complex nature of power dynamics, operating among multiple axes, is reflected in nuanced and sometimes contradicting response patterns. When analyzing on a more-fine grained basis, we achieved further clarity as to the differences which arise on a cross-country basis, as well as between use-type, platform choice, and other demographic factors.

The first key focus of the report, on the peer-to-peer relationships in the sharing economy, revealed relatively positive results. This positivity of sharing economy users was reflected in a widely held opinion that the rating/review system, which underpins the entire sharing economy by ensuring trust between strangers, was perceived as working relatively well and being mostly fair. Moreover, respondents tended to be especially positive towards their peers in terms of trusting their rating/reviewing behavior.

When querying the experiences of interpersonal treatment, we also found that the arithmetic mean values for interpersonal treatment were particularly high, showing that providers and consumers treat each other with respect, dignity, and in a polite manner. This finding is in line with the seemingly high service expectations among consumers. Indeed, our results touch upon a broader trend of increased professionalism among sharing economy providers

Somewhat mediating this positivity, we found that providers across different platforms were in agreement that consumers have unrealistic expectations. In this light, it does not surprise that many providers and consumers perform emotional labor on a regular basis. In fact, for emotional

labor, users performed not only the expressive but also the suppressive, potentially more straining, sub-dimension of emotional labor. We found that, despite the positive views of interpersonal treatment, providers and consumers in the sharing economy regularly hide their annoyance and disapproval. This indicates that many sharing economy transactions might be less authentic than assumed and might have to do with increased professionalization and establishment of service norms.

The second focus of the report, on the user-platform relationship, was less optimistic. The perception of the platforms, by contrast, was mostly in the mid-ranges, suggesting considerable potential for improvement among platforms. Respondents, for example, perceived that the terms and conditions were far from perfect and many thought that sharing platforms change them too frequently. At the same time, one third of providers and consumers reported being hesitant towards questioning platforms' terms and conditions. Here, increasing awareness and literacy among users would be a starting point.

The same trend holds true for pricing mechanisms. The limitations of the study prevented us from assessing in greater in detail how well providers and consumers understand the pricing system of each platform. However, the positive response patterns for the item "The sharing platform cut is too large" reveal both a price-sensitivity among users and a general sense of powerlessness.

On the topic of collective action, a considerable number of users surprisingly did not have a strong opinion and placed themselves in the middle categories. This runs contrary to current narratives about the sharing economy, which expects partisan opinions. Interestingly, we found that providers reported high values for the question *"It is easy for providers to organize collectively"*. Indeed, one method by which providers organize collectively is through online communities, which are particularly prominent in Poland and Portugal.

The third, and final, topic of the report covered issues which affect society more broadly, namely the narratives and regulation surrounding sharing economy platforms. Regulation was a topic with mixed opinions overall. Almost no respondents wanted a strong laissez-faire approach but very few respondents were in favor of a complete ban. Still, three quarters of all respondents (both users and non-users) though that sharing platforms should follow the same rules and regulations as established companies. This indicates that the public opinion is more in favor of hands-on regulation than a hands-off approach.

Pointing in a similar direction, most respondents view sharing platforms as transportation and hospitality companies rather than mere intermediaries in the form of software companies. Thus, residents of the twelve countries of the survey have recognized and are aware of the economic power of major sharing platforms. Many are not buying the rhetoric of the platforms as being merely matching systems between providers and consumers.

Throughout the analysis, we differentiated respondents' opinions based on different criteria throughout the report: main user group (provider vs. consumer vs. aware non-user vs. non-aware non-user), country, age, gender, and platform. The user group, country, and platform distinctions emerged as particularly salient differentiators.

For example, in terms of regulation, providers opted most strongly for a hands-off approach. Providers also revealed worse interpersonal treatment by consumers than vice versa. Surprisingly, providers also saw more personal responsibility for resolving problems and for dealing with externalities among themselves than consumers and aware non-users perceived. At the same time, providers were shown to be the most critical towards platforms and see platforms' responsibility most strongly (whereas consumers and aware non-users more strongly opt for shared responsibility among providers and platforms).

Among providers, we see further pronounced differences depending on the main platform used. This was particularly the case for algorithmic management and perceived pressures to provide more often than providers would have liked. In terms of platforms, Uber scored the worst in that regard, while Airbnb and BlaBlaCar fare better. This finding could have to do with the fact that among Uber drivers, there are more professional providers than among Airbnb and BlaBlaCar (Andreotti et al., 2017). The overall findings therefore show that platform differences matter, so that it is important to disaggregate and consider specific platform cultures and values rather than viewing the sharing economy as a homogenous entity.

Our data permitted fine-grained country-by-country analyses. Reflecting the complex nature of cultural and regional differences, the country differences did not always follow a clear or expected pattern. However, in some instances we detected a north-south divide, particularly so in the parts of the survey that assessed provider-consumer interaction. Northern European countries, such as Norway and Denmark, were more negative, whereas Southern European countries, such as Portugal, Spain, and Italy, were generally more positive. We see this quite clearly, for instance, in terms of interpersonal treatment, where Portugal and Spain report the highest values and Norway the lowest. Further, in terms of platform perception, respondents were more positive in Southern Europe than in Northern Europe. For example, the rating/review system was assessed more positively in the South than in the North.

Finally, when analyzing demographic differences, we found a few significant age and gender differences in our survey. Women, in particular, reported higher levels of emotional labor than men, while simultaneously experiencing higher levels of interpersonal treatment. Men, on the other hand, in general saw sharing platforms more as software companies than women. In terms of age, older users reported higher levels of understanding and reading of the terms and conditions than younger users. Similarly, they demonstrated a higher level of financial literacy with regard to the pricing information. Thus, sharing platforms would be well advised to focus efforts on improving the experience of younger users.

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Report from the EU H2020 Research Project Ps2Share:
Participation, Privacy, and Power in the Sharing Economy

Appendix: Methods and Sample

Gemma Newlands[1], Christoph Lutz[1], Christian Pieter Hoffmann[2], and Christian Fieseler[1]

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1. Introduction

This Appendix forms one element of a European Union Horizon 2020 Research Project on the sharing economy: **'Ps2Share 'Participation, Privacy, and Power in the Sharing Economy'**. The study is undertaken within the scope of the European Union's Horizon 2020 research and innovation programme, funded under grant agreement No. 732117 and with the objective (ICT-35) of "Enabling responsible ICT-related research and innovation".

This project aims to foster better awareness of the consequences which the sharing economy has on the way people behave, think, interact, and socialize across Europe. Our overarching objective is to identify key challenges of the sharing economy and improve Europe's digital services through providing recommendations to Europe's institutions. We focus on topics of participation, privacy, and power in the sharing economy.

The project comprises four primary tasks: 1) A review of existing literature on the sharing economy, focusing on issues of participation, privacy, and power; 2) A platform analysis of more than 300 platforms operating within Europe; 3) A series of focus groups in 5 European countries; and 4) A representative survey of more than 6000 inhabitants across 12 European countries.

The results of the representative survey are reported in three separate reports: **'European Perspectives on Participation in the Sharing Economy'**, **'European Perspectives on Privacy in the Sharing Economy'**, and **'European Perspectives on Power in the Sharing Economy'**. The purpose of this Appendix is to act as a free-standing yet complementary report, providing essential information on the research design, data collection methodology, and demographic factors related to our quantitative sample.

2. Methodology

This section provides a brief overview of the methodology adopted in the quantitative survey.

Research Design:

To explore the prevalence, antecedents, and outcomes of participation, privacy, and power challenges in the European sharing economy, the consortium determined to construct a cross-national quantitative survey aimed at assessing the attitudes and self-reported behavior of more than 6000 individuals across 12 European countries.

The survey targeted both users and non-users of the sharing economy. Accordingly, the survey was designed so as to filter respondents into four categories, based on their exposure to the sharing economy.

- The first category, 'providers', refers to respondents who have used sharing economy platforms to offer their goods or services.

- The second category 'consumers' refers to respondents who have used sharing economy platforms to receive goods or services. Due to the expected imbalance in numbers

between providers and consumers, respondents who had used sharing economy platforms as both a provider and a consumer were directed towards the provider category and requested to answer the survey as a provider.

- The third category, 'aware non-users', refers to respondents who are aware of sharing economy services, but have never used them as either providers or consumers.

- The fourth category, 'non-aware non-users', refers to respondents who have not heard of the sharing economy and have not used sharing economy services.

The survey was further divided into four sections with regard to topic. The first section focused on demographic information, personality traits, and self-reported skill levels. The second section focused on participation modalities and antecedents. The third section focused on privacy concerns. The fourth section focused on perceived power dynamics in the sharing economy. Full overviews of the items within each section are provided in the respective quantitative reports.

Country Selection:

With regard to the country selection, the consortium determined to take a broad European focus, including countries both within and outside the European Union. As a selection criteria, the consortium included countries represented by the consortium members, namely Denmark, Germany, Italy, the Netherlands, Norway, and Switzerland. In addition, the consortium determined to include countries which would represent different geographical regions within Europe, namely France, Ireland, Poland, Portugal, Spain, and the United Kingdom.

With this selection, the survey would include the largest European countries, as well as a representative selection across eastern, western, northern, and southern Europe. In addition, this selection includes countries with both a higher and lower average income, as well as countries with a varied uptake of sharing economy services.

Questionnaire Design:

The questionnaire was designed in iterative and collaborative process. Initial items were suggested by members of the research consortium and, due to the relatively novel nature of the sharing economy, the initial questionnaire design included both pre-established scales and newly developed scales. The questionnaire consisted of a series of open and closed questions, where for most closed questions respondents could state their agreement to a statement on a five-point Likert scale.

For the purposes of quality control, testing, and scale reduction, the consortium determined to carry out a pre-test. Additional questions were included within the pre-test survey in the form of open comment boxes. Respondents were asked to give their opinion on the survey and to point out any perceived flaws or confusion.

The pre-test survey was distributed online in May 2017 via Amazon Mechanical Turk and the survey administration was handled via TurkPrime. The survey was distributed among 393 US-based respondents. The survey took 1013 seconds to fill out on average, with the median number of seconds to complete it being 885 (standard deviation 508 seconds). Respondents for the pre-test received a reward of 2 US Dollars, with an additional 1 US Dollar completion bonus.

Due to its nature as a pre-test, the consortium determined it was satisfactory to use a US-based respondent sample. Moreover, the expertise of the US-based sample on Amazon Mechanical Turk, with regard to their exposure to varied survey designs, provided valuable feedback for improving the survey. In light of the pre-test, the questionnaire was further reduced. This questionnaire underwent testing within the consortium through factor analysis and qualitative discussions in order to further reduce its length and increase clarity.

The finalized questionnaire was translated from English into the required languages: Danish, Dutch, French, German, Italian, Norwegian, Polish, Portuguese, and Spanish. A survey for each country, except for Switzerland which received a survey both in French and German, was then programmed by the research team in Qualtrics. Each survey was synchronized to be identical in content.

Data Collection

For the recruitment of participants, the research team collaborated with Ipsos MORI, a leading ESOMAR-certified, international, and UK-based survey provider to access a high-quality respondent pool in the form of a consumer panel.

The panel included a representative sample of the online population in each country, in terms of age (18-65), gender, and region (or best efforts by survey provider where necessary). The panel included a target of 500 respondents in each country. Respondents received a small financial reward for filling out the questionnaire directly from the survey provider. The first round of field work took place in June and July 2017.

After a period of quality control, where low quality respondents were removed (i.e., due to speeding, through-lining, or nonsensical answers to open text boxes), the second round of field work took place in August 2017.

A final nationally representative sample was thus prepared, numbering 6111 participants. To ensure representativeness, some countries include more than 500 participants. The descriptive statistics below provide further information as to sample sizes for each country.

Data Preparation

After collection, the survey data underwent a process of cleaning and preparation by members of the consortium within SPSS. Firstly, the individual surveys were aligned, using the UK survey as the master-file. The variable names and labels for each item were changed and values were checked, with any inconsistencies being corrected. The process of data cleaning and preparation was fully documented within SPSS syntax.

3. Descriptives

Country

As described above, 12 European countries were represented in the survey, each with a sample of between 500 and 534 participants. Accordingly, each country consisted of approximately 8% of the overall sample, with Italy (8.7%), Spain (8.7%), and the Netherlands (8.4%) being slightly over-represented.

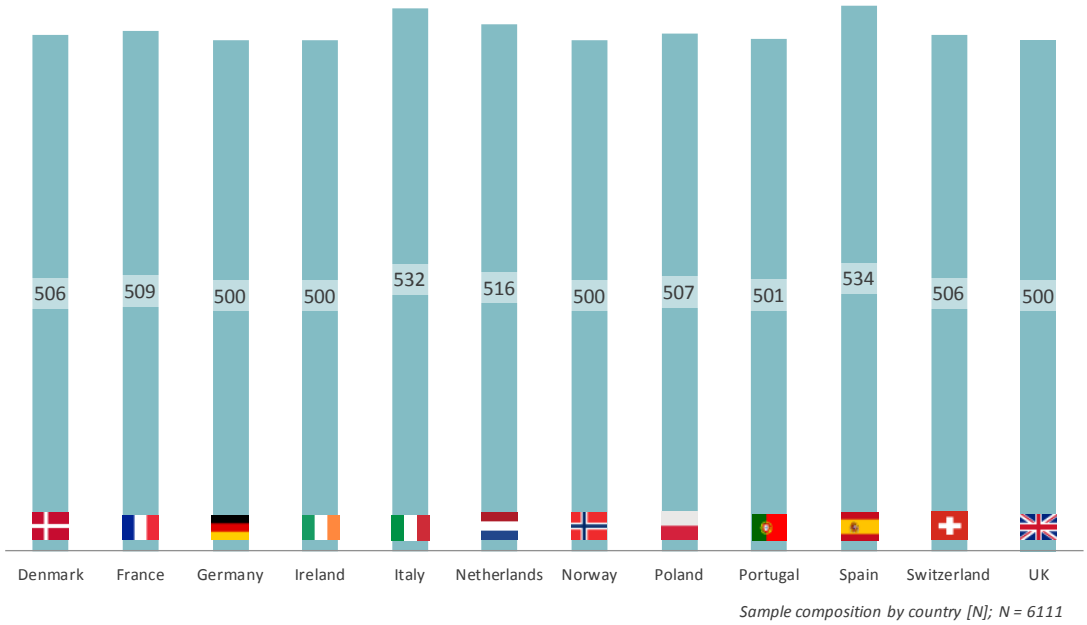

Figure 1: Sample Composition by Country

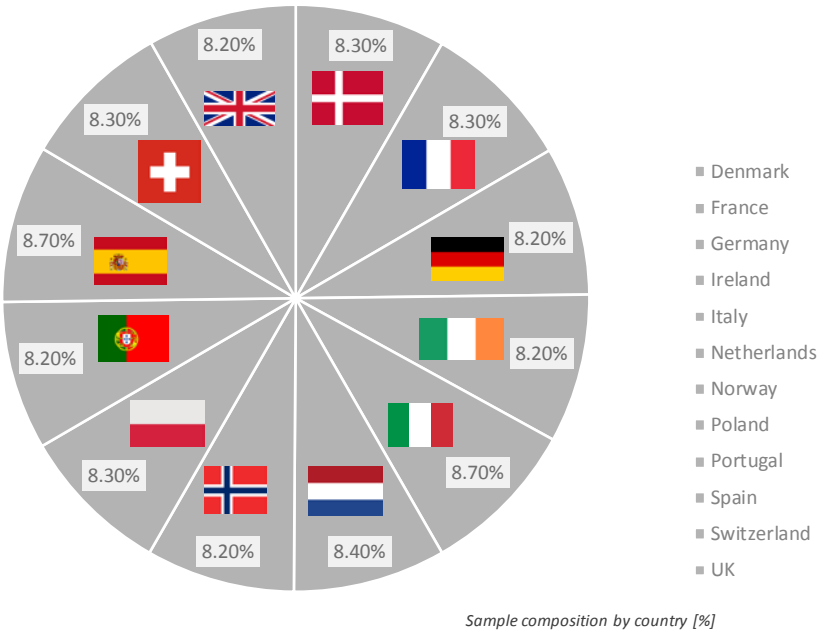

Figure 2: Sample Composition by Country, in percent

Age

The sample consists of Europeans between the ages of 18 and 65. The sample composition is roughly structurally equivalent, with the average age across the sample being 41.7 years old.

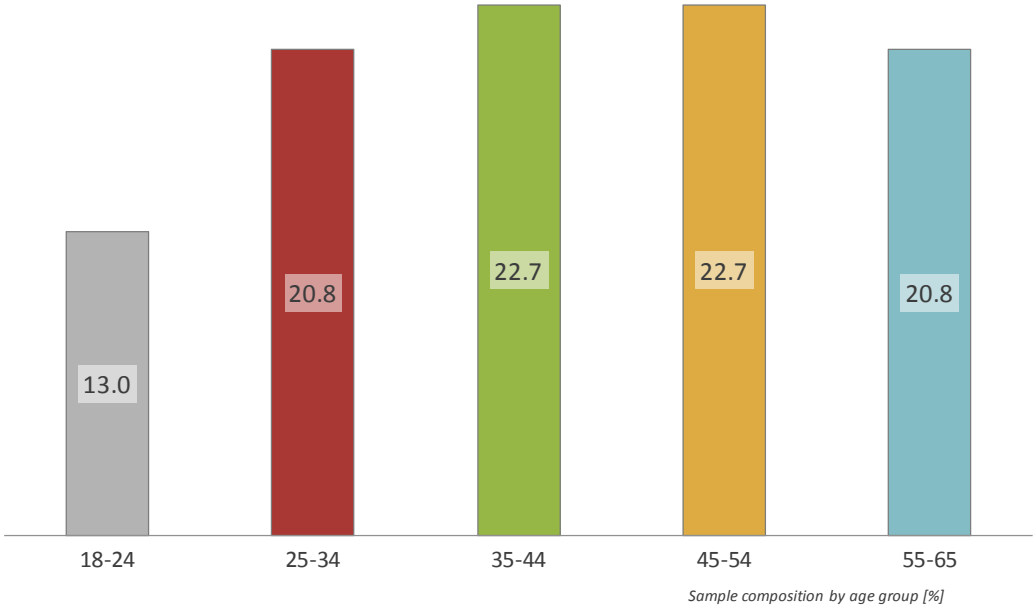

Figure 3: Age Band, all Countries

	18-24	25-34	35-44	45-54	55-65	M	SD
Denmark	13.6	18.8	21.7	23.3	22.5	42.29	13.812
France	13.4	20.2	21.8	22.4	22.2	41.99	13.359
Germany	12.4	19.4	20.4	25.8	22.0	42.57	13.337
Ireland	12.6	24.6	24.2	20.8	17.8	40.43	12.731
Italy	12.0	20.1	23.7	23.3	20.9	42.12	13.238
Netherlands	14.1	18.6	21.7	23.3	22.3	42.2	13.638
Norway	15.0	20.8	22.4	21.4	20.4	40.71	13.719
Poland	14.0	24.5	19.9	19.7	21.9	40.87	13.697
Portugal	11.8	19.8	24.2	23.0	21.4	42.02	13.227
Spain	9.4	20.8	28.7	23.6	21.4	41.56	11.93
Switzerland	12.8	20.6	22.1	24.1	20.4	41.73	13.517
UK	14.8	21.2	21.8	22.0	20.2	41.33	13.204
Total	13.0	20.8	22.7	22.7	20.8	41.66	13.292

Sample composition by age group and country [%]; Mean and Standard Deviation

Table 1: Age Band per Country

Gender

The sample is composed of 50% male and 50% female participants. This pattern is generally stable across all surveyed countries.

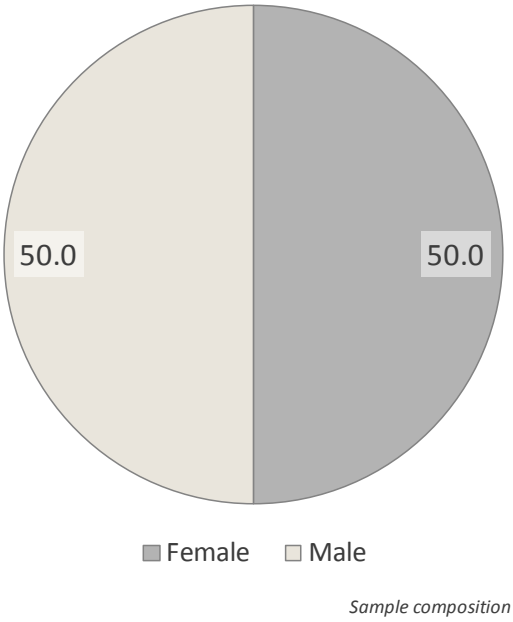

Figure 4: Sample Composition by Gender, in percent

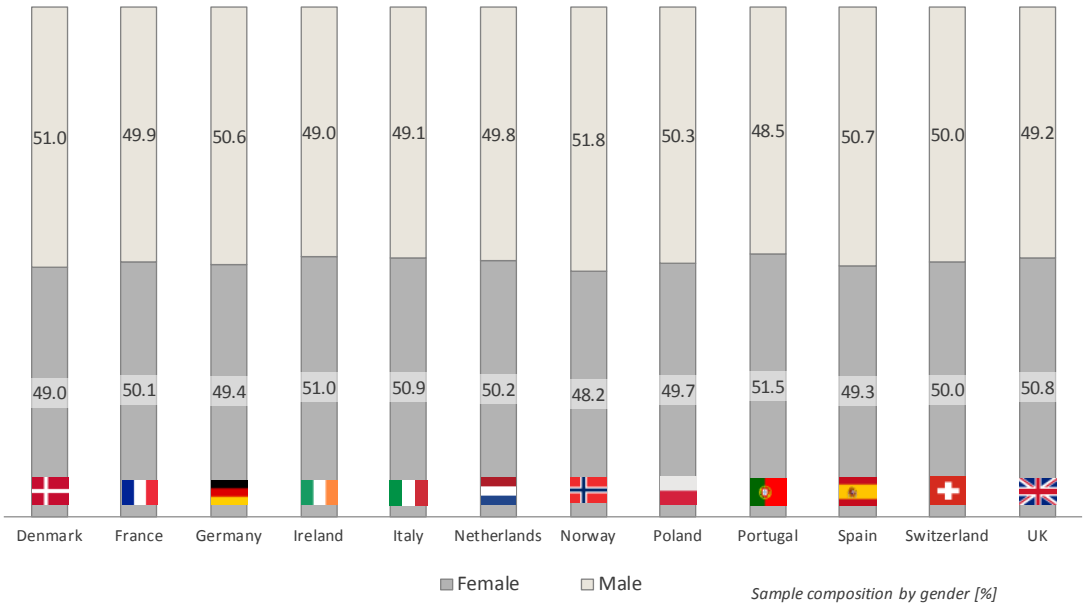

Figure 5: Gender Composition – Cross-Country Comparison

Employment Status

Within the sample, 66.5% of participants are currently employed. There is a notable variance across countries regarding employment status, with Spain (42%), Italy (41.5%), and Denmark (40.7%) showing relatively higher percentage of participants who are not currently employed.

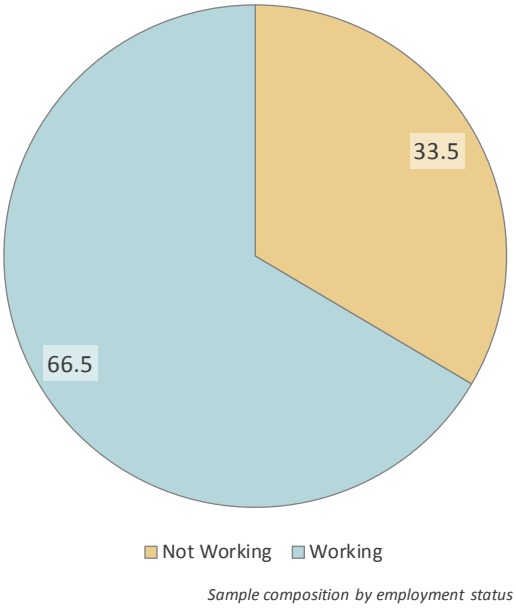

Figure 6: Working Status – All Countries, in percent

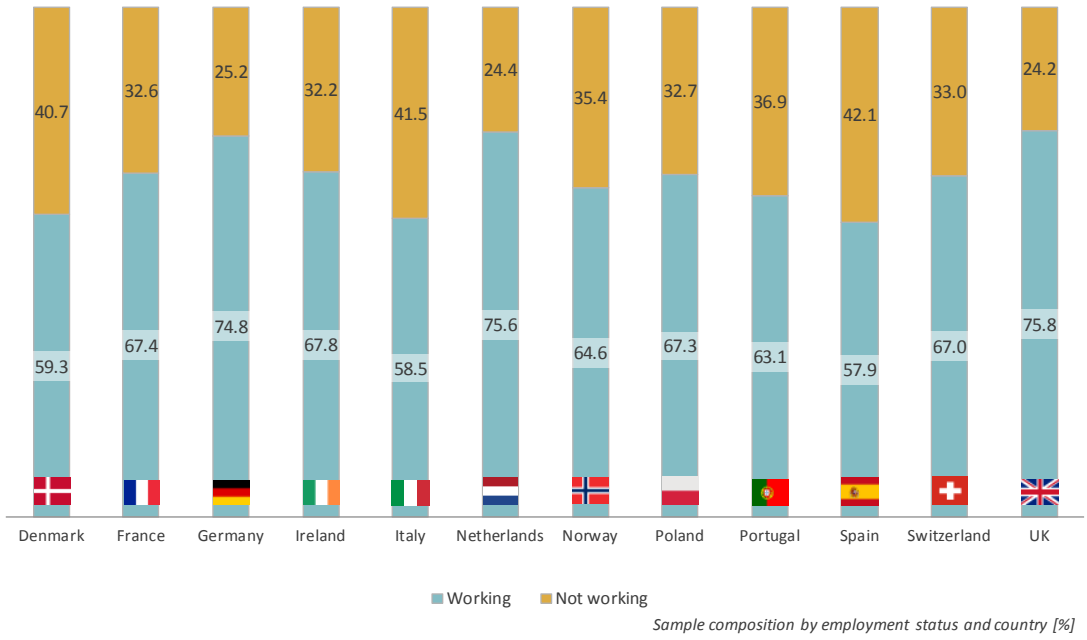

Figure 7: Working Status – Cross-Country Comparison

Education

In terms of education level, 42.4% of the overall sample have completed higher secondary education as their highest educational attainment. 24.5% of the sample hold a Bachelor's degree, 14.4% hold a Master's degree, and 2.6% hold a Doctorate or higher.

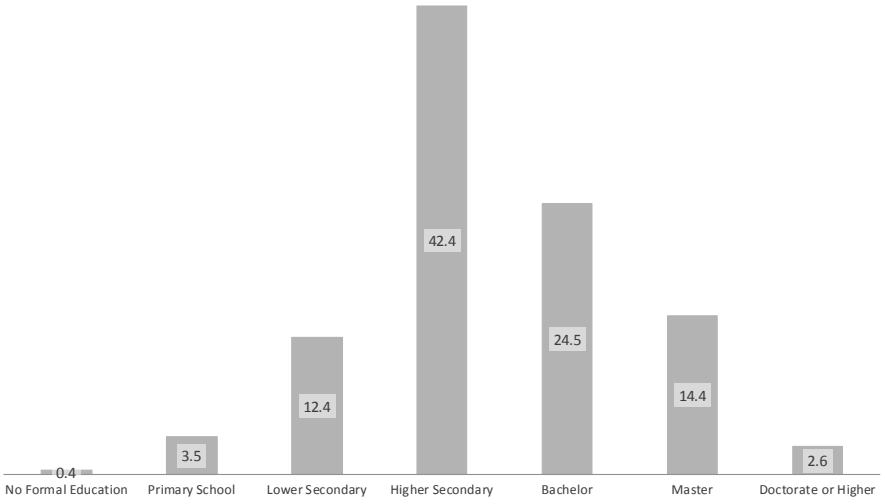

Figure 8: Education Level – All countries, in percent

	No formal Education	Primary School	Lower Secondary	Higher Secondary	Bachelor	Master	Doctorate or Higher
Denmark	1.8	25.1	13.2	23.1	24.7	9.7	2.4
France	0.4	1.0	9.4	44.0	25.7	9.7	2.4
Germany	0.4	0.4	27.8	48.8	7.4	13.2	2.0
Ireland	0.2	1.8	9.8	45.8	29.6	12.0	0.8
Italy	0	1.3	9.0	52.3	12.7	21.2	2.4
Netherlands	0	1.6	30.6	21.5	29.1	13.8	3.5
Norway	0	0	8.8	48.6	31.2	9.8	1.6
Poland	0	2.4	9.7	36.3	16.8	33.9	1.0
Portugal	0	0.8	5.2	47.3	34.5	10.8	1.4
Spain	0.4	4.3	11.4	37.1	33.3	11.2	2.2
Switzerland	0.6	2.6	6.9	61.9	12.1	7.9	8.1
UK	0.6	0.2	6.2	42.4	36.2	11.4	3.0
Total	0.4	3.5	12.4	42.4	24.5	14.4	2.6

Sample composition by education and country [%]

Table 2: Education – Cross-Country Comparison

Household Size

Within the sample, 18.9% of respondents live alone in a single household. The largest share of participants (31.5%) live in a household with two people. Roughly a quarter of the sample reports a household size of four or more people. Larger household sizes are relatively common in Poland, Ireland and Italy. Single households are more common in Germany, Switzerland, the Netherlands, and Scandinavia.

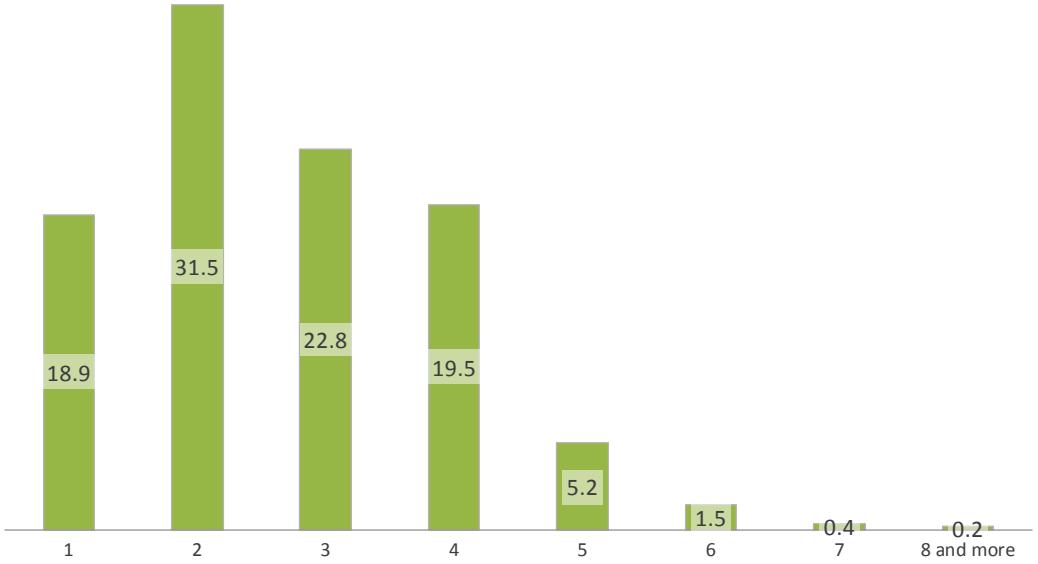

Figure 9: Household Size - All Countries, in percent

	1	2	3	4	5	6	7	8+
Denmark	30.8	33.8	16.8	12.3	4.3	1.6	0.2	0.2
France	20.6	31.8	21.8	18.1	5.3	1.8	0.4	0.2
Germany	28.4	37.0	17.6	13.4	2.2	0.8	0.2	0.4
Ireland	16.4	28.8	24.0	17.8	8.2	3.2	1.4	0.2
Italy	7.5	24.6	29.5	29.9	6.6	1.3	0.6	0
Netherlands	25.6	34.1	15.1	18.0	5.2	1.4	0.2	0.4
Norway	24.4	31.8	19.0	17.8	5.2	0.8	0.8	0.2
Poland	12.0	32.3	28.4	17.4	8.1	1.2	0.2	0.4
Portugal	10.8	29.5	30.1	25.1	3.0	1.4	0	0
Spain	9.0	24.5	31.6	28.5	5.6	0.7	0	0
Switzerland	24.5	33.6	18.8	17.4	3.6	1.6	0.4	0.2
UK	17.8	36.6	20.2	17.6	5.4	2.4	0	0
Total	18.9	31.5	22.8	19.5	5.2	1.5	0.4	0.2

Sample composition by household size and country [%]

Table 3: Household Size – Cross-Country Comparison

Region

Most participants (57.9%) live in urban areas. 27% of respondents report living in a rural area. The Swiss, Irish, and Dutch samples have a relatively large share of inhabitants in rural areas, whereas a relatively large segment of participants from Spain, Poland, and the UK report living in large cities.

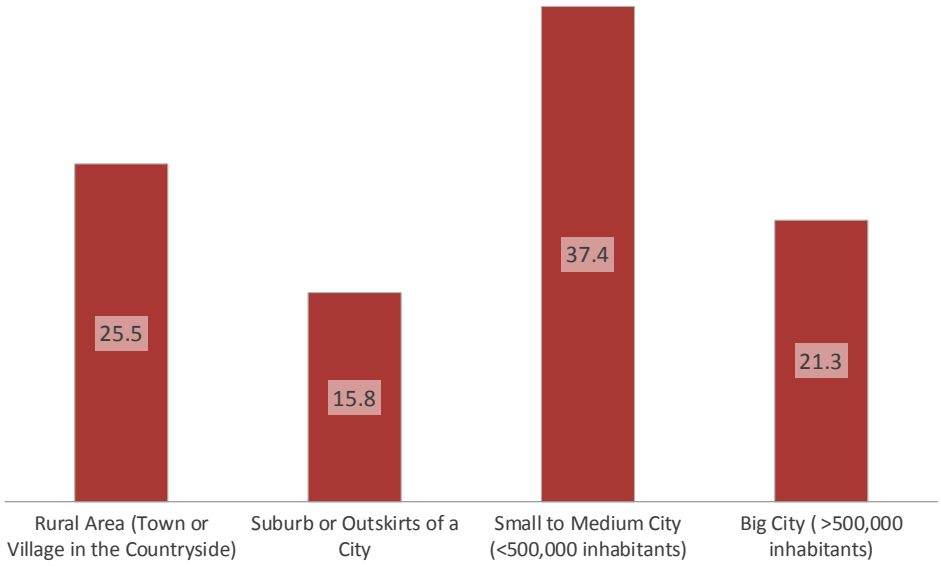

Figure 10: Region – All Countries, in percent

	Rural Area	Suburb or Outskirts	Small to Medium City	Big City
Denmark	25.5	15.8	37.4	21.3
France	35.0	17.5	33.2	14.3
Germany	25.2	12.4	40.6	21.8
Ireland	41.4	20.2	18.4	20.0
Italy	25.9	16.9	35.5	21.6
Netherlands	30.2	10.7	45.5	13.6
Norway	20.4	16.8	43.2	19.6
Poland	20.1	3.9	51.9	24.1
Portugal	18.8	17.6	41.9	21.8
Spain	14.6	6.7	49.3	29.4
Switzerland	37.5	18.6	35.2	8.7
UK	29.6	25.6	20.6	24.2
Total	27.0	15.2	37.8	20.1

Sample composition by region and country [%]

Table 4: Region – Cross-Country Comparison

Income

The most common income bracket in the sample is between an income between 20,000 and 29,999 EUR (16.5%), followed by the 30,000-39,999 EUR bracket (13.6%). Local currencies were compared based on the current exchange rates [August 2017]. To compare countries, the overall sample was divided into income quartiles. A large segment of the Polish, Portuguese, Italian, and Spanish samples belong to the first income quartile, while large segments of the Swiss, Danish, and Norwegian sample belong to the fourth income quartile.

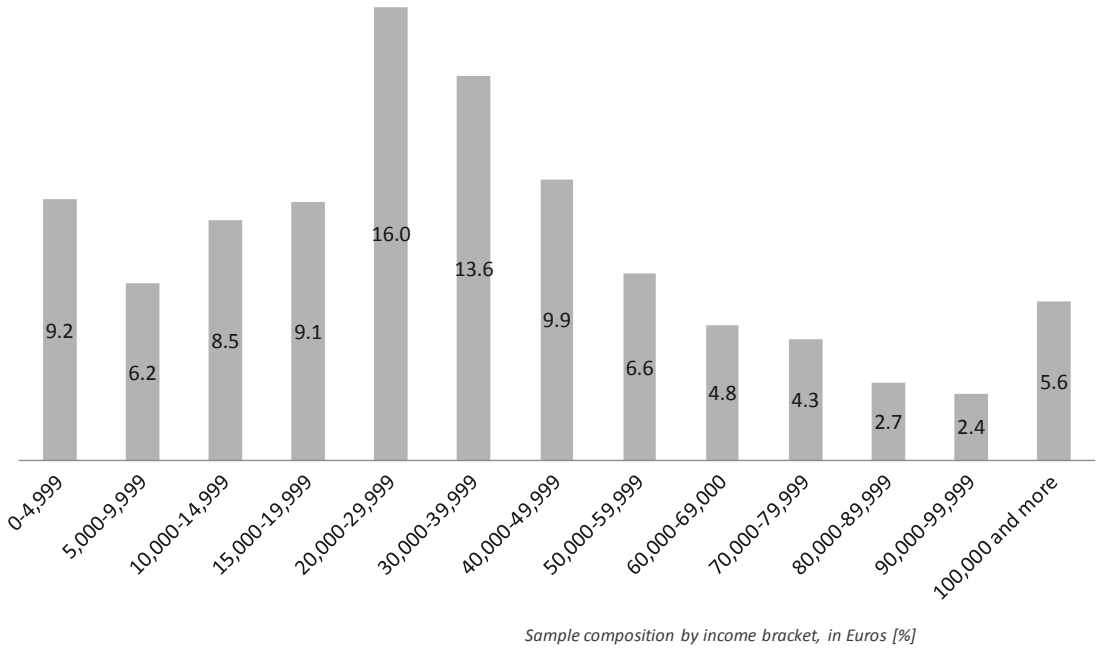

Figure 11: Income Brackets – All countries, in percent

	1. Quartile	2. Quartile	3. Quartile	4. Quartile
Denmark	11,5	16,8	19,4	52,3
France	16,1	33,4	36,4	14,1
Germany	16,7	23,6	28,4	31,3
Ireland	13,3	25,5	29,7	31,5
Italy	35,5	39,8	18,6	6,1
Netherlands	15,7	22,0	34,1	28,1
Norway	7,7	14,4	23,5	54,5
Poland	61,3	25,2	9,5	4,0
Portugal	46,8	34,7	15,2	3,3
Spain	28,5	37,2	25,1	9,1
Switzerland	21,4	6,4	11,6	60,6
UK	15,2	24,4	33,2	27,2
Total	**24,2**	**25,4**	**23,7**	**26,7**

Sample composition by income quartile and country [%]

Table 5: *Income Quartiles – Cross-Country Comparison, in percent*

User Type

Of the overall sample, 9.1% have provided services on a sharing platform, thus classed as 'providers'. 18.7% of the sample have only consumed sharing services, thus classed as 'consumers'. 62.5% of the sample have heard of sharing services, but never used them, thus classed as 'aware non-users'. 9.7% of the sample are not even aware of the existence of sharing platforms, thus classed as 'non-aware non-users'. The proportion of providers is relatively high within the French, Norwegian, and Polish samples, whereas the Dutch and Italian samples feature a relatively large segment of non-aware non-users.

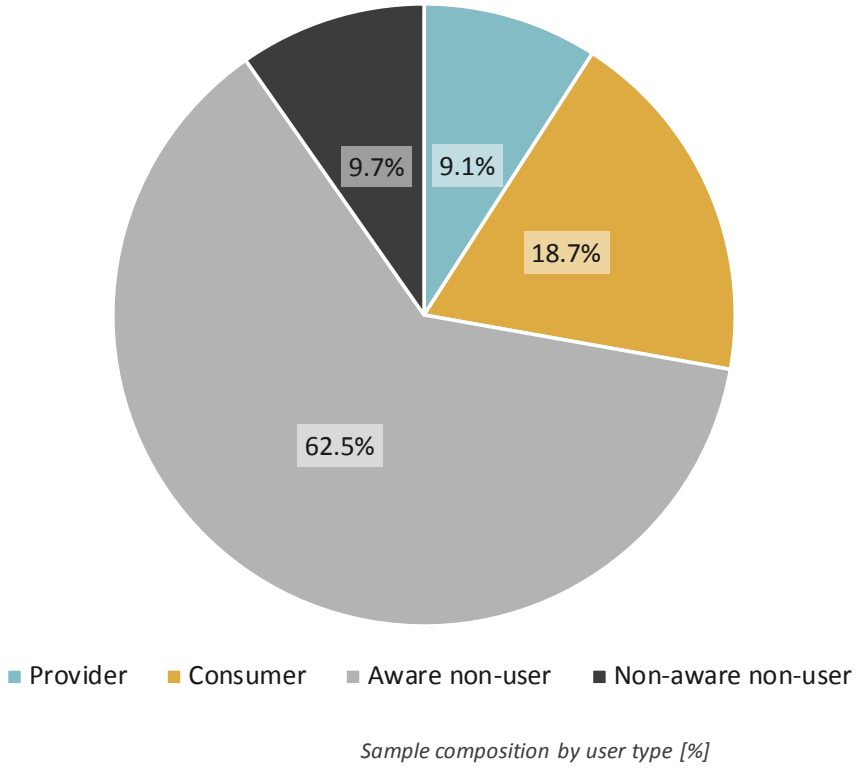

Figure 12: User Type – All Countries, in percent

	Provider	Consumer	Aware Non-User	Non-Aware Non-User
Denmark	9.9	14.6	62.5	13.0
France	15.7	24.6	56.6	3.1
Germany	9.4	15.4	64.0	11.2
Ireland	7.2	23.0	63.2	6.6
Italy	10.7	19.2	52.3	17.9
Netherlands	3.1	13.4	65.7	17.8
Norway	12.8	13.6	61.4	12.2
Poland	11.4	14.2	65.3	9.1
Portugal	5.2	17.6	74.5	2.8
Spain	10.1	19.3	65.9	4.7
Switzerland	8.3	21.3	59.7	10.7
UK	5.2	28.4	59.2	7.2
Total	**9.1**	**18.7**	**62.5**	**9.7**

Sample composition by user type and country [%]

Table 6: User Type – Cross-Country Comparison

Open Data and Data Re-Use

Ps2Share: Participation, Privacy, and Power in the Sharing Economy is part of the Horizon 2020 Open Research Data Pilot. The project management team has produced a data management plan as a separate deliverable, outlining the types of data collected, their storage, and re-use. Specifically, the data management plan addresses how the data is to be made FAIR: findable, accessible, interoperable, and re-usable. As a participating project of the Horizon 2020 Open Research Data Pilot, the quantitative data which the reports are based on, will be made openly available under an appropriate license, such as Creative Commons-By, after the end of the project.

The data will be made available through the project website in an accessible format such as CSV or XLSX on a request basis through an online form. In addition, we are publishing the data in at least one of the institutional repositories of a participating institution. Sufficient documentation will ensure that potential interested parties will be able to re-use the data quickly and efficiently.