



open DOORS - Designing a network of cOOperating cReative communities for developing a Sharing economy

Interreg MED Programme

Priority Axis 1: Promoting Mediterranean innovation capacities to develop smart and sustainable growth

Specific objective: 1.1 To increase transnational activity of innovative clusters and networks of key sectors of the MED area

Benchmarking Study

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1. Introduction to benchmarking analyses

Benchmarking is the process of improving performance by continuously identifying, understanding, and adapting outstanding practices and processes found inside and outside an organization (company, public organization, University, College, etc.) [1].

It was pioneered by Xerox Corporation in the 1979s, as part of their response to international competition in the photocopier market, and originated from reverse engineering of competitors' products. Its scope was then enlarged to include business services and processes. Xerox now benchmarks nearly 240 performance elements although, when they started benchmarking several years ago, considerably fewer elements were benchmarked.

Benchmarking of business processes is usually done with top performing companies in other industry sectors. This is feasible because many business processes are essentially the same from sector to sector.

Benchmarking focuses on the improvement of any given business process by exploiting "best practices" rather than merely measuring the best performance. Best practices are the cause of best performance. Companies studying best practices have the greatest opportunity for gaining a strategic, operational, and financial advantage.

The systematic discipline of benchmarking is focused on identifying, studying, analysing, and adapting best practices and implementing the results. To consistently get the most value from the benchmarking process, senior management may discover the need for a significant culture change. That change, however, unleashes benchmarking's full potential to generate large paybacks and strategic advantage.

The benchmarking process involves comparing one's firm performance on a set of measurable parameters of strategic importance against that of firms' known to have achieved best performance on those indicators. Development of benchmarks is an iterative and ongoing process that is likely to involve sharing information with other organizations working with them towards an agreeable metrology.

Benchmarking should be looked upon as a tool for improvement within a wider scope of customer focused improvement activities and should be driven by customer and internal organization



needs. Benchmarking is the practice of being humble enough to admit that someone else is better at something and wise enough to learn how to match and even surpass them at it.

Objectives of the Technique

Benchmarking entails gathering information from one organization to beneficially apply it to another organization. The scope is to improve the processes performed at the recipient organization by applying efficient work processes (work done by people, equipment and information systems). It is a valuable Business Engineering Technique and its application not only identifies innovative work processes but also involves discovering the thinking behind innovation.

It is a form of comparative analysis. It is necessary to establish some common ground as the basis for comparison. Usually one identifies one or more functional areas for analysis and selects one or more metrics as a quantitative basis for comparison. These are then compared with agreed benchmarks derived from recognized sources of best practice.

Ultimately, two questions need to be answered:

- What are the alternatives to our present process?
- What are the benefits, costs and risks of the alternatives?

Benchmarking essentially works to the extent that benchmarks can be agreed and suitable comparators found for which measurements are also available.

Types of benchmarking

In general, there are four types of benchmarking:

1. COMPETITIVE BENCHMARKING

Benchmarking is performed versus competitors and data analysis is done as to what causes the superior performance of the competitor.

It can be, in some respects, easier than other types of benchmarking and in some respects more difficult. It is easier in the sense that many exogenic variables affecting company performance may be the same between the source and the recipient organization, since we are talking about companies of the same sector. On the other hand it is more difficult because, due to the competitive nature, data recuperation will not be straightforward. Difficulties of



this type may be overcome if the two organizations have for e.g. different geographical markets.

2. INTERNAL BENCHMARKING

This process could be applied in organizations having multiple units (for e.g. multinationals, companies with sale offices around the country, with multiple factory locations within the same country).

3. PROCESS BENCHMARKING

Here we look at processes, which may be similar, but in different organizations, producing different products, for e.g. airline industry & hospital industry looking at the process of catering their 'clients'.

4. GENERIC BENCHMARKING

We would look here at the technological aspects, the implementation and deployment of technology. How else other organizations do it? Hence the source organizations may be of same industry or from another industry.

Processes 1, 3 and 4 are all external benchmarking activities. However, locating an external benchmarking partner and setting up a benchmarking arrangement requires a significant investment in time and effort. An alternative to external benchmarking might be intra-company, or internal benchmarking which is less costly in terms of time and money. Two additional benefits may result from internal benchmarking:

- the improvement program will receive wide recognition within the company and other divisions may benefit and
- the team performing benchmarking will be better prepared for pursuing external benchmarking partners. If there is a high degree of uniformity within the company or the process in question is already a company wide practice, external benchmarking may be pursued to identify additional improvements.

The role of benchmarking in business



In order to know where the company is going and how it's able to compete, performance needs to be measured and analysed both internally and externally [2]. This is why benchmarking is vital for driving business excellence.

Overall, the goal of benchmarking is to:

- Determine what improvements are needed
- Analyse internal and external data on targeted areas of improvement
- Use gathered information to make strategic business decisions

A great example of benchmarking in action is in the sports arena. A team or athlete measures and analyses statistics to see where they fall in the rankings and what they need to do to improve. The same principles apply in the business world, but it is much more complex than tracking batting averages or yards scored.

A company can benchmark everything from financial statements to the emotional intelligence of employees. Yet, many businesses only focus on benchmarking their bottom line. This omission can have disastrous consequences to the growth of the company.

Benchmarking digital performance

Aside from ad revenues and profits, business should benchmark digital performance to drive excellence. If a company is not actively measuring its digital performance, then it becomes highly susceptible to disruption in today's digital world. The music industry was not benchmarking digital performance before Spotify, SoundCloud, or YouTube emerged and now it's scrambling to catch up.

While every company has different benchmarking needs, it's best to approach this process from both a macro and micro perspective.

Macro benchmarking

The macro approach to benchmarking digital performance provides a bird's-eye-view on where the company is in the market. It shows whether your company is more traditional or is it digitally mature. When taking a macro approach, the entire business model needs to be examined in order to:

- Monitor trends inside and outside of the industry



Keeping a finger on the pulse of tech trends could breathe new life into a business. Like in the growth of Uber and the sharing economy. This was a trend the restaurant industry should have been keeping a keen eye on. While ridesharing has little to do with food, this trend bled over into the restaurant world with the emergence of Doordash, Postmates, UberEATS, and more. Had a savvy company in the restaurant world benchmarked this particular trend, they could have created a food delivery app and dominated the field before anyone else could.

- Track the competition's digital innovation and adoption

When FitBit started the fitness industry's wearable trend, apparel companies took notice. Nike saw the potential in wearables and released their fitness device, FuelBand, in fall of 2013. The problem, however, is that FuelBand wasn't radically different from FitBit and simply tracked users' physical activity, steps taken, and energy burned. Sales for FuelBand were disappointing and, in less than six months, Nike discontinued the tech.

Under Armour, on the other hand, watched the rise and fall of Nike's attempt and acted accordingly. Instead of developing another fitness wearable that functions the same as FitBit, Under Armour created HealthBox—a more robust system of wearable health trackers. HealthBox not only tracks steps and activity but also measures sleep, resting heart rate, workout intensity, body weight, and body fat percentage. It also sends alerts, works as an alarm clock and workout log, and allows users to control music volume and selection. Considering this product has been on the market for over a year now, it's safe to say it's already performing better than Nike's initial wearables attempt

- Analyses of the digital methods used for serving the customers

Modern technologies can be used instead of sending paper statements to the customers. Other modern technologies that could be used is VR tech to attract more prospects. Evaluation of the current digital state of offerings and research of options for improvement can help in decision of if (and how) those options could be used to better serve the customer.

Micro benchmarking



After measuring the company's digital performance at a macro level, specific digital platforms or channels within the business should be monitored. This type of benchmarking provides a company with granular data on performance.

The main micro digital performance areas to benchmark revolve around web, social, and mobile app analytics. Benchmarking Key Performance Indicators (KPIs)—such as usage, traffic, time spent on site, bounces, etc., will give the company valuable insight into the customer experience. This will also provide the company with concrete data regarding performance.

For companies that want to remain agile and competitive in our Digital Age, benchmarking must go beyond tracking the bottom line if the goal is to drive excellence. Companies need to benchmark digital performance and progress in order to avoid disruption, gain a competitive edge, drive innovation, make informed predictions and decisions, and ultimately, improve performance.



2. Benchmarking indicators

Indicators are a balanced assessment of actual performance of an observed sector. The Lisbon summit in March 2000 established an 'open method of co-ordination' to reach the targets in the eEurope Action Plan [3]. This includes establishing quantitative and qualitative indicators for benchmarking. On 1 December 2000, the Council (Internal Market) adopted a set of 23 indicators for the benchmarking of eEurope.

These indicators were spelled out in the French Presidency's paper on implementing the eEurope Action Plan (13515/00). Council referred the further definition of the following two indicators for eGovernment to the eGovernment working group:

- Percentage of basic public services available online,
- Use of online public services by the public for information purposes or submission of forms.

Comparable indicators for eGovernment

In establishing indicators for eGovernment, the approach taken is to focus on the demand side, i.e. the bottom-up reality of citizens' and businesses' contacts with government. The key is the take-up of the services, regardless of by what body or at what level of government these are delivered. A distinction is made between services for citizens and for businesses.

At the meeting of the eGovernment working group on 15 December 2000, it was agreed that Member States should present lists of the 25 main public services to citizens and businesses. On the basis of the replies and the discussions at the meeting of the group on 12 February, a list of 20 basic public services is proposed, 12 for citizens and 8 for businesses. The services are not listed in order of importance.

To operationalise the indicators, the level of online sophistication of the services also needs to be measured. For this purpose, a four-stage framework is applied in several countries. For the eGovernment indicators, the following model will be used:

- Stage 1 Information: online info about public services,
- Stage 2 Interaction: downloading of forms,



- Stage 3 Two-way interaction: processing of forms, incl. authentication,
- Stage 4 Transaction: case handling; decision and delivery (payment).

The methodology proposed for measuring the degree to which a service is available online is based on the method developed by the Dutch government. This degree depends on the extent to which it is possible to carry out a service electronically. All the four stages above may not be relevant for all types of public services. For each service, the highest relevant stage is therefore indicated. The basic premise in the method for calculating the 'online percentage' of a service is whether or not a service reaches a given stage. A service that is offered as a full transaction can, for example, achieve a maximum of four points (each stage corresponds to 1 point). The score can therefore be between 0 and 4 points (0 indicating that none of the stages is achieved).

The calculation consists of comparing the sum of the scores on all services and stages with the sum of the maximum possible scores. In this way, the degree to which the agreed set of public services are available can be calculated as a percentage. For the purpose of this exercise, account will not be taken of the relative importance of the various services in terms of the number of customers using the service.

This model will allow to gather information that is relevant for both indicators (the 'basic public services' and the 'use of online public services by the public'). Data will be collected in surveys under the responsibility of the Commission services. These surveys could be complemented by Eurobarometer surveys to give a bottom-up view of the eGovernment services and more detailed information on the second indicator. As decided by Council, the eGovernment indicators will be measured twice a year.

Following is the basic list of online public services for citizens which can be used as benchmarking indicators:

- 1) Income taxes: declaration, notification of assessment
- 2) Job search services by labour offices
- 3) Social security contributions (3 out of the following 4):
 - a. Unemployment benefits
 - b. Child allowances
 - c. Medical costs (reimbursement or direct settlement)
 - d. Student grants



- 4) Personal documents (passport and driver's licence)
- 5) Car registration (new, used and imported cars)
- 6) Application for building permission
- 7) Declaration to the police (e.g. in case of theft)
- 8) Public libraries (availability of catalogues, search tools)
- 9) Certificates (birth and marriage): request and delivery
- 10) Enrolment in higher education / university
- 11) Announcement of moving (change of address)
- 12) Health related services (interactive advice on the availability of services in different hospitals; appointments for hospitals)

The second list is the basic list of online public services for businesses which can be used as benchmarking indicators:

- 1) Social contribution for employees
- 2) Corporation tax: declaration, notification
- 3) VAT: declaration, notification
- 4) Registration of a new company
- 5) Submission of data to statistical offices
- 6) Customs declarations
- 7) Environment-related permits (incl. reporting)
- 8) Public procurement

Benchmarking study on Smart City Data Analytics

Cities are producing and collecting massive amount of data from various sources such as transportation network, energy sector, smart homes, tax records, surveys, mobile phones sensors etc [4]. For citizens and municipalities wanting to interpret and understand society's trends and make decisions, a question they are immediately faced with is how to store and analyse the vast amount of data that their service will collect. One of the recent technologies that have a huge potential to enhance smart city services is big data analytics which have many challenges for analysing urban datasets such as data volume.

Different methods and benchmarking systems are available for measuring city performance and innovation using variety of indicators.



Indicators can include information such as:

- Benchmark Score
- Index Score
- Multiple (4-10) Data Points
- Sources for Data Points
- Date of Data

An example of indicators in one segment such as “Mobility, Autos, Cycling & Transport” can include [5]:

- Airport Transfers
Modes of airport transfer and direct integration and support on city transit networks.
- Automobiles
Road quality and expansiveness, as well as **car-sharing** and environmental initiatives.
- Bicycle Friendly
Availability of protected and designated bicycle facilities, as well as bicycle support.
- City Transport Infrastructure
Availability of multiple transport modes, and interoperability, preferably with safe metro option or light rail.
- Inter-City Connections
Availability of super-fast/fast-rail (higher benchmarks), rail or alternately airports or buses (lower).
- International Airport
Major modern airport with full facilities measured against best airports.
- Service Delivery
Reliability of services, and amenity of services on an average day.



- Service Frequency

Frequency of services to most suburban areas during the key peak and off-peak times.

- Street Signage

Availability and international language-neutral approaches to signage.

- Streets

Width and layout of streets, major streets that are well known globally.

- Taxi Service

Availability, safety and reliability of taxi service and government policy towards taxis.

- Transport Coverage

Distribution of multiple transport modes across the city in existing and new suburbs.

- Walking City

Safely walkable CBD with supporting transport modes.

An example of indicator including car-sharing – one of the typical examples of sharing economy – can be seen in the list of indicators for smart cities in the transport segment.

2.1. Benchmarking indicators for shared economy

Every industry/sector has its drivers and performance indicators. The manufacturing sector has its drivers in technological innovation, economy trade, financial and tax systems, and cost and availability of labour & materials, while it has its performance indicators in quality, cost, flexibility, manufacturing process and revenue growth [6].

Similarly the primary sector has its drivers in Monsoon, technical innovation in farming and government support, while the performance indicators are higher consumption, stable pricing and volume of production.

Drivers and the performance indicators of sharing economy are the ones most interesting for this study. Some of the interesting drivers/indicators of the sharing economy are the following:



- The broadest driver of sharing economy is the macro economy itself. If we consider the cost of living, it is going up, while the income is not increasing at an equal pace. The urge is to consume at a lower price which can happen through collaborative consumption. Collaborative consumption is another name for sharing economy. The diagram below (Figure 1) explains the reason for growth of collaborative consumption in the recent past. Income slowed down, without much reduction in cost of living following the recession of 2008.

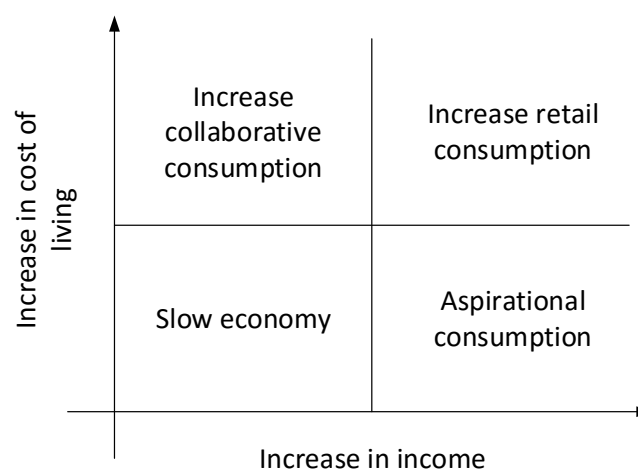


Figure 1 Income versus cost of living

- The next driver is the increase in entrepreneurial spirit and aspiration among the millennial. The below metrics (Figure 2Error! Reference source not found.) portrays human nature against state of economy. When human aspirations are higher coupled with good trend of the state of economy, we see an entrepreneurial attitude coming to the fore. This is more so in millennial, who always wants a better way of life then their current state. This is the scenario that is presently in India. With the economy showing a medium-upward trend and average age less than 35 years, we can see multiple entrepreneurs providing what they can do best.



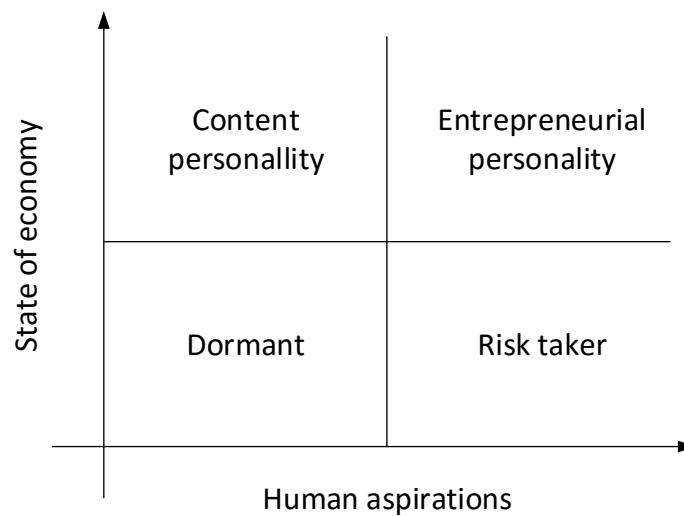


Figure 2 Human nature versus state of economy

- The next and one of the most critical factors of success of the sharing economy is the trust factor. In a virtual market place essentially driven by technology, there are 2 major validations that are looked at. The 1st is the eatings and eevIEWS section, and the other is the actual stories of the users. Though the market place is virtual, the players are very much real and human.

The below metrics (Figure 3) shows the trust factor associated with a provider in a sharing economy. If there are compelling user stories, coupled with high ratings and reviews, the micro entrepreneur is already on a growth trajectory. The opposite of such a scenario can even be considered fake by the service seekers. Professionals will continue delivering quality thus gathering high reviews, but not necessary great user stories. However, if we understand that a provider is real, looking at user stories, but may be low on numbers, we may give the provider a chance if any highly trusted professionals are not available.



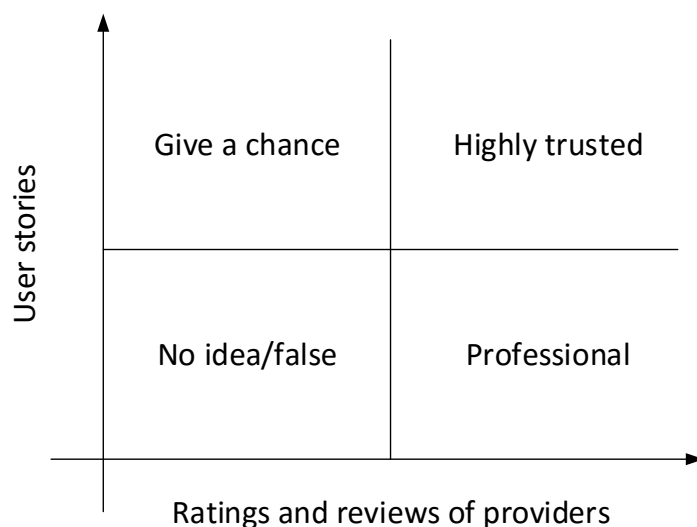


Figure 3 Trust factor associated with a provider in a sharing economy

There are two very interesting drivers of a sharing economy platform:

- The 1st is the stage of a sharing platform. There are 2 very compelling criteria. The 1st is the number of listings on the platform. The 2nd is the number of connections between the provider and the seeker (Figure 4).

The Best Scenario is where there are a number of listings and a number of connections between provider and seeker. This is an evolutionary process. The process generally follows this path:

Get Listings -> Get Seekers to see Listings -> Get Connections

For example, in the Sharingdais.com, there are around 2200 listings across categories and 500+ connections. So, they are already in a scenario of high supply and are poised for growth. According to Sumeet, they are moving towards increasing connections and make people utilize the services. The listings will be growing along with it. Essentially the platform is poised to grow.



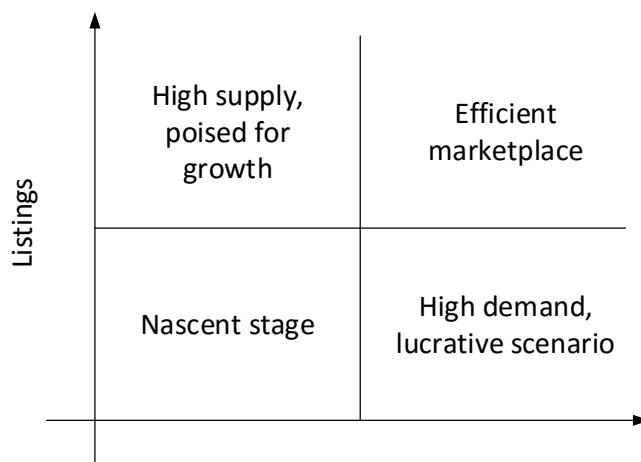


Figure 4 Connection versus listings

- The 2nd indicator is how good a platform in assisting its entrepreneurs/providers is. The efficient market place essentially showcases a trusted provider (Figure 5). They have the correct tools and techniques to recognize and market a trusted provider. In case a provider with poor trust is showcased by the platform, it raises a doubt on the platform on a whole. If a trusted provider is not showcased, it's a perfect opportunity for the platform to take the next leap and make it efficient.

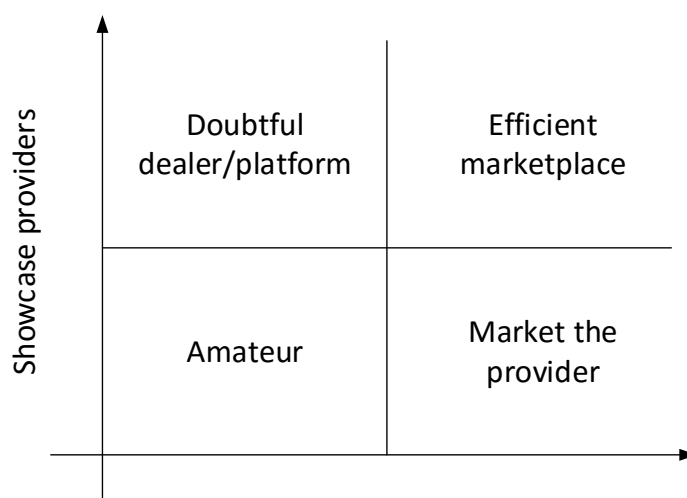


Figure 5 Provider's trust versus showcase



Economic and societal effects

As the platforms of the sharing economy are based on sharing private assets in one way or another, this could result in exclusion from the sharing economy of the less-privileged members of our society who do not have assets to share, as well as those without qualifications who could otherwise benefit the most from the additional income [7].

All the platforms offer lower prices than the traditional providers already on the market, which could have a positive impact on the purchasing power of EU citizens. These platforms also offer individuals an opportunity to earn additional income that could be earned in their free time, thereby increasing disposable income for households. However, problems could emerge later in the lives of individuals working in this sector as these platforms do not guarantee social security or pension rights, due to the fact that most of their workers are considered to be independent contractors, not employees. This aspect would need to be regulated in order to ensure social security provisions. Providing services through sharing economy platforms comes with a high personal responsibility and as such higher risk than would be the case working for a traditional business.

At the same time these activities, which are often not taxed, could have a negative effect on the economy as well. Some consumers prefer to pay less for services such as accommodation and transport, which would have a direct impact on the profits of hotels, taxis and other similar service providers. With lower profits, it is likely that the companies would have to let go of a certain percentage of their employees.

On the other hand, some of the experts said that that these platforms helped to increase the number of visitors to EU cities and that in many cases the tourists stay longer, profiting from the lower accommodation prices, but continuing to spend money on the different services available. This could imply that the effects on the economy could be slightly positive, but the profits would be expected to move from one sector to another (e.g. hotels to restaurants).

One of the sectors that could be seriously affected in the medium term is the automotive industry. With more and more vehicles shared, the number of privately-owned vehicles is expected to drop, affecting the profits of companies in the automotive industry. This could however have a direct negative impact on employment in the transportation and storage sector. However, as the cars that are shared would need to be of better quality, the automotive industry could adapt to a certain degree, by selling better-quality and more durable vehicles.



Hotels and similar companies are expected to experience a negative impact as well, as more and more individuals opt for sharing economy services for accommodation. This would also have a limited negative effect, as hotels can offer services that private persons cannot and prices of hotels and sharing economy platforms are not significantly different in many cities due to high demand. The competition from private individuals on sharing economy platforms could push traditional service providers to improve their services and offer more reasonable prices, regaining some of the customers lost.

Cheaper services, especially those in transport, result in greater inclusion for certain disadvantaged groups, such as elderly citizens, who can now move more easily, giving them access to certain services that they could not afford in the past. However, the sharing economy could also have a negative impact on inclusion. As sharing economy service providers do not always have to follow the same legislation as traditional services providers, certain groups could find themselves excluded. Good examples of this include disabled individuals, who may not be able to use services such as Uber, because Uber is not required to have vehicles adapted to their needs and private drivers are not obligated to take them on board, while registered taxis are.

The platforms could be seen as a good alternative to regular jobs for many women, especially those raising children. However, this could further distance women from the job market, widening the gap in salaries and social status between women and men. This could have a direct negative effect on the employment of women.

As individuals working for these platforms cannot form unions (they are not employees), their rights would not be properly protected, possibly resulting in a disadvantaged position compared to the regular job market.

In some cities the sharing economy resulted in a lack of housing, as the owners of apartments and houses see platforms such as Airbnb as more profitable than traditional renting, and therefore prefer to rent them out for shorter periods of time. This results in less availability of housing and consequently a rise in prices, affecting the disposable income of families and individuals in certain cities.

At this moment it is difficult to estimate the impact of the sharing economy on disposable income as it is still too early to say how these new activities would affect the existing business activities. In cases where sharing economy activities merely replace existing economic activities (e.g. hotels, taxi,



car rental) the economic effect (including on disposable income and tax revenues) would be negative. On the other hand, if sharing economy activities do not replace existing activities, but create additional activities (in the same sectors, or in new sectors), the effect would be positive.



3. Benchmarking best practices in Finland and Russia

Study of best practices of sharing economy in Finland and Russia across various industries assesses the strength of various business models behind sharing economy and benchmarks best practices existing in Finland and Russia [8]. It researches current legal status of the phenomenon as well as legislative changes that are to be expected in the field of sharing economy.

The purpose of the study is to identify and analyse sharing economy as a fundamentally new and disruptive type of business models. The needs of travel and tourism industry towards new-coming business model and concrete suggestions on how to provide services aligned with those needs are explored.

The chapter explores in-depth aspects of the collaborative economy in Finland and Russia based on case studies of ten sharing business companies, including the cases of well-known pioneers of sharing economy. The chapter discusses the peculiarities of sharing economy development in both countries utilizing available secondary data.

3.1. Sharing economy in Finland

The conception of sharing services arrived in Finland approximately the same year as the world witnessed the massive expansion of companies such as Uber and Airbnb. Both services launched its operation in Finland in 2014, along with other Nordic countries, by attracting numerous followers and adopters. The socio-economic scene in Finland provides favourable conditions for the growth of collaborative consumption, while the cultural feature poses both advantages and obstacles for spreading out the phenomenon.

Like in many other countries, the services first arrived to the capital region, in Helsinki, where the urbanization and globalization processes make citizens more open towards in-novation. Helsinki is, in many respects, a sharer's paradise. The Finnish capital boasts a range of sharing economy platforms and services, from just-for-fun neighbourhood initiatives to global for-profit start-ups. Helsinki's sharing scene overturns the widespread misinterpretation that the sharing economy comprises only a handful of major for-profit players (Uber, Airbnb), and serves as an example of how local history and culture can positively shape a technology-influence social and economic change.



A starting point for sharing economy in Finnish style was long before 2014. The Finns have been an agricultural nation until not that long ago and as agrarian society they were always very sharing and circular economy focused. The Finnish concept of talkoot (literally translated as "bee"), which prizes voluntary communal work, survived the transition from the fields to the central city. The fact that Finnish society is familiar with reciprocity and communal work facilitates the easy growth of sharing services and the number of fol-lowers.

In addition, environmentally friendly Finland and its high conscious citizens value solicitous attitude towards goods, and believe that unwanted items should be given a second life by redistributing to other people who may need them. The first special Cleaning Day was arranged in Helsinki in 2012, initiating the annual neatest festival of one-day nation-wide recycle swap meetings when cities and neighbourhoods are changed into huge flea markets and marketplaces. The idea of Cleaning Day is to make recycling easy and create vivid and responsible urban culture. Cleaning Day does not have an official organizer, all participants are organizers of their own events. Thus, it makes the festival a great example of collaborative consumption in its purest form.

A couple of fundamental characteristics of Finland's political economy also helped set the stage for sharing. First, a longstanding commitment to political democracy makes it easier for individuals or small groups to launch their own initiatives. Like its Nordic neighbours, Finland is a welfare state with strong tradition of social security and state involvement, which promote the idea that if someone has more, they should share it, and the state will distribute resources equally. With such basics as healthcare and childcare covered by the state, moreover, Finns have spare time and money to devote to passion projects including sharing.

Second, the city's relationship to technology affects the likelihood of sharing services adoption. Mobile technology in particular has accelerated the growth of the sharing economy worldwide, allowing sharing economy service providers to add convenience and cost savings to the ideological and/or ecological reasons for choosing against conventional models. The Finnish nation is known for a high level of technology penetration. In 2015 Finland was ranked second worldwide in the Network Readiness Index, which measures each economy's ability to leverage information and communication technologies.

Finally, and perhaps most significantly, today's sharing scene in Helsinki is the product of a strange combination between an excellent education system and high rates of unemployment. These



factors, when combined, motivate people to search for the new employment solutions, new businesses, new economy models and that is the moment when sharing economy offers its deal and attracts new followers.

The catalyst for the most recent wave of collaborative innovations in Helsinki was Restaurant Day. Now an international event, Restaurant Day launched in 2011 as a quarterly "food carnival." The conception allows would-be restaurateurs dream up a concept for a pop-up cafe, establish a location and menu, issue a public invitation through the Restaurant Day website, and, for one day, transform a private home or city park into a solid eating establishment. The popularity of Restaurant Day and other projects, including Cleaning Day has in turn inspired other grassroots sharing initiatives.

The City of Helsinki has been largely reactive, rather than proactive, in its response to the burgeoning sharing economy. Though it has begun to leverage events like Restaurant Day as tourism boosters, its commitment to collaborative experiments is superficial at best. The sharing economy benefits indirectly from some of the city's top priorities. Helsinki is on the cutting edge of the open-data revolution in municipal government. The Finnish capital has an entire department "City of Helsinki Urban Facts" dedicated to statistics, research, and open data. Though originally motivated by a desire for improved governmental transparency, the treasure trove of publicly-available data can be put to good use by actors in the sharing space, providing a huge tool for creating sharing economy platforms, or ideas.

For instance, Helsinki Regional Transit Authority tested the ride-pooling service at the beginning of 2012 with the introduction of Kutsuplus, an on-demand shared van service. However, according to the final report on the Kutsuplus, service terminated at the end of 2015 due to the low financial profitability and its incapability to support itself. The service gained popularity among users and received interest also outside Finland over the three years of its operation. At the end of the trial, the service had over one thousand stops supplemented by virtual stops. However, the number of cars did not increase from the 15 cars used in the trial due to lack of funding. Nevertheless, Kutsuplus proved a competitive alternative for privately owned and leased cars and benefited many people by saving time spent on travel, searching for a parking space and car maintenance.

City of Helsinki also works hard to maintain its status as a mecca for startups. The leading startup and tech event in Europe Slush, annually held in Helsinki, attracts tens of thousands people from all around the world. Startups, investors and businessmen come to Slush to advance their



businesses and experience the phenomenal atmosphere. Thus, the startup-oriented attitude of City of Helsinki allow to flourish all kind of startups initiatives whether it is a gaming, communication or sharing services enterprises.

In the light of the foregoing, it is worth nothing there are still some hindrances that occur on the way of sharing economy services adapting to the Finnish socio-economic environment. The sheer scale of the local government can make it hard for individuals and groups to navigate official permissions, since the phenomenon is relatively new and there are no clear guidance on how the services should operate. The official permission is the prerequisite for the most part of the activities organized by individuals. Another potential obstacle is the other side of the welfare-state coin: a tendency toward overregulation. The necessity to comply with mix of regulations sometimes possess a vital thread to the initiative existence and execution, resulting in inability to conduct activity legally and properly. Finally, Helsinki's relatively small population makes it harder for sharing trends to gain traction. An inadequate critical mass, which is one of the crucial principles of sharing service operation, may result in a shortage of Finnish home-grown sharing service platforms being replaced by foreign platforms.

Despite these challenges, the future of sharing economy in Finland remains promising. In the recent study on the current state of the collaborative economy in Finland commissioned by the Ministry of Employment and the Economy in December 2016, some 37 platform operators in the collaborative economy were identified. According to PwC's analysis, the value of transactions in Finland's collaborative market was a little over EUR 100 mil-lion in 2016. The largest sectors were collaborative finance at 65%, accommodation and space at 19% and small tasks and household services at 14%. Over the next few years, it is forecast the Finnish collaborative economy market will catch up on the lead established by the European market as the transaction values more than double each year.

Another study on the use of collaborative platforms requested by the European Commission in March 2016, shows that 60% of Finnish respondents stated that "they have never heard of these platforms", while another 30% reported that "they have heard of these platforms but have never visited them". A merely 5% of Finnish respondents replied that "they use the services of these platforms occasionally (once every few months)", and another 2% cited that "they use the services of these platforms regularly (at least every month)". Those, who have been on one or more of these platforms and paid for a service once constitute 1% of all Finnish respondents. A total of 7% of those



Finnish citizens who use sharing services mention the fact that these platforms are cheaper or free as the main advantage of collaborative platforms over the traditional commerce of goods and services. However, over half of respondents who are aware of collaborative platforms in Finland identify the factor of not knowing who is responsible if a problem arises as one of the main problem of collaborative platforms. The trust to Internet transactions in general is not a concern for Finnish respondents and they do not have any negative associations with online purchase. On the contrary, not trusting the provider or seller is one of the main problems of these platforms for Finnish users. Additionally not having enough information on the service provided is one of the most often mentioned answers among Finnish respondents.

The development of the collaborative economy in the leading European countries shows that, as the market matures, the growth of the collaborative economy is often quite rapid. The chapter continues with a description of the sharing economy in Russia.

3.1. Sharing economy in Russia

The sharing economy and the conception of collaborative consumption is relatively new phenomenon in the world, and even newer and more foreign it is in Russia. The prominent appearance and references to the first sharing services in Russia, regarding national or international acknowledgement, trace back to year 2011 as it can be analysed through the case study outlined below. The statistics and author's personal experience proves that any modern social or economic innovation or trend gains its popularity in Russia some three to five years later its appearance in Europe and USA. The reason for that derives from geographical dispersion and gradual application of new trend to the Russian reality. In general, the conception of collaborative consumption is definitely not a novelty to the Russian society and the idea of sharing is near and dear to generous Russian soul.

However, the process of implementation of sharing economy in Russia has its peculiarities to be taken into consideration when forecasting its future development.

The trust issue is considered the number one concern related to the process of sharing economy development in Russia. The reputation systems based on reviews and feedback may face a significant hurdles due to the different perception of reputation among Russian users. It is believed that sharing and other similar services will inevitably lead to the growing number of frauds. The reputation and value placed on it are vastly lower in Russia than in countries where the level of trust



is higher and, therefore, the good reputation is important. Experts assume as soon as the number of frauds in the sharing system exceed a certain critical level, the sharing service will simply disintegrate.

The ride sharing services existing in Russia, such as Yandex.Taxi or Rutaxi, are based on service providers supply, thus it cannot be called a sharing economy in its original form. The first car-sharing service Anytime was launched in Moscow in 2013, and similar service StreetCar appeared in Saint Petersburg in 2014. The latter has suspended its operation a year later due to financial problems. In both cases the car was rented by the company, making it again not a sharing economy in the original form. The development of services based on direct communication between users requires high level of trust. Unfortunately, Russians cannot lay claim to be trustworthy users and, on the contrary, have a high level of incredulity and low level of trust. Surprisingly, the statistics show that the level of trust is clearly correlated with economic situation: the worse the economic situation, the more suspicious Russian people become. According to VCIOM polls, the majority of Russians at about 70 per cent of the population believe that people, in general, do not trust each other.

Nowadays, the sharing services are mostly popular among advanced part of Russians such as residents of megacities whose way of life is closer to European standards rather than to average Russian pattern. The development prospects of sharing economy outside the Russian megacities are vague and the vast territory of the country slows the process of integration.

Unlike in Europe or the US, where the term "sharing economy" has become a buzzword, with companies such as Uber and Airbnb taking up endless column inches, such collaborative enterprises are still nascent in Russia - and not always successfully executed. Thus far neither on-demand parking deals nor peer-to-peer ride sharing for goods nor dog boarding nor online rental platforms has gain its massive popularity in Russia, remaining a niche market products with local segmentation.

It is worth noting that cultural aspect plays an important role in the perception of sharing by Russian citizens. In general, people and the media do not bring any attention to the sharing economy in Russia, because Russians, especially in Moscow, are used to paying and saving money is not a priority. "People still like to be flash and it will take time before realization that that is not the purpose of living. A Russian will never tell his friends that he saves money, because no one will understand". (The Calvert Journal, 2014).

The reason for that derives from the value placed on ownership that followed the collapse of the Soviet Union, which was by contrast marked by decades of shortages and communal living. The



citizens of former USSR has lived in a “sharing economy” for so long, that now they desperately want to be owners. Owning a car is a status symbol of not just wealth but a connection, comparing to the Soviet Union times when quite a lot of people had the money to buy cars but could not because there were not enough. Thus to be willing to share it with a stranger or even allow him to drive it freely seems irrational and illogical. The same thinking applies to flats when, after living in communal flats, getting even a small and cheap one in ownership seemed like a miracle. The ownership has been a desired property form for quite a long time, therefore, the privilege of access over ownership will not become evident to the previous Russian generations.

In general, the development prospective of sharing economy in Russia depends on the nature of each service specifically. It is believed that the most favourable and promising forms of sharing economy in Russia will consist of those focusing on financial solutions. Crowdfunding, virtual settlement monetary systems and temporary banks can have some special attractiveness for Russian users as it can help to avoid the usage of expensive bank loans and provide an opportunity to start a business during the economic recession.

As for the present times, like other sharing economy services, most of ride sharing activity originates in the capital: the most popular rideshares are from Moscow to St Petersburg and Moscow to Nizhny Novgorod. Airbnb is similarly concentrated in Moscow and St Petersburg with little activity elsewhere. It is predicted that the expansion of sharing services will take long due to the fact that internet penetration in Russian subregions is still very low. However, experts see the potential in the Russian market and believe that kick-starting the sharing economy in cities like Krasnoyarsk and Vladivostok could be even easier because people in these cities are different and the barriers of trust are lower. In such places they have a saying: “because nature is so harsh, you have to help your neighbour”. This sort of mentality is very much the culture in these regions which is why it is believed that any sharing economy services could be a natural fit for them, which they are just unaware of, yet.

Bearing in mind aforesaid facts, the promising future of sharing economy in Russia is in the rise of IT penetration, growing generation Z and extending netiquette.

The chapter continues with exploration and discussion about the features of collaborative business models. The chapter includes comprehensive case studies of two the most efficient and prominent sharing economy companies, and continues with business models’ analysis and description.



The analysis highlights the competitive advantage of collaborative economy business models as well as addresses possible obstacles and implications to developing sharing economy companies.

3.2. Benchmarking of collaborative business models in Finland and Russia

The examples of the best practices of sharing economy worldwide include the advent of peer-to-peer accommodation and peer-to-peer transportation services in the United States in 2008 and 2010. These services, namely Airbnb Inc. and Uber Technology, are considered to be the pioneers of sharing economy, setting an example of successful sharing economy business models for many other companies. The examples described in previous subchapter include companies that in some instances operate in the form and likeliness of either Airbnb or Uber, thus being a potential competitors. Indeed, many sharing economy companies have initially appeared in the US market, therefore, Finnish and Russian sharing economy scene appears developing, yet imposing some regional peculiarities. In that sense, the European and Russian policy makers and entrepreneurs have a unique advantage of analysing risks and benefits by using prominent sharing economy companies as a natural sort of experiment. The detailed description of Airbnb Inc. and Uber Technology is followed by the business models' analysis.

Airbnb example

"Airbnb is a peer-to-peer online marketplace and homestay network which enables people to lease or rent short-term stay in residential properties". Hospitality service include vacation rentals, apartment rentals, homestays, hostel beds and hotel rooms. The list of lodgings listed on Airbnb.com varies from air beds and shared spaces to private rooms and entire homes and apartments to castles, boats, manors, tree houses, tipis, igloos, private islands and other properties being rented out worldwide. The headquarters are located in San Francisco, California and Dublin, Ireland.

The Airbnb (originally AirBed & Breakfast) was founded in 2008 in San Francisco, California by Brian Chesky, Joe Gebbia and Nathan Blecharczyk. The founders of billions worth startup were looking for a way of renting out an airbed mattress and shared space in order to make some quick money to help pay off the monthly rent, and took the advantage of design conference being held in the city at that time. The hotels were sold out or were un-affordable expensive, therefore a website with available short-term living quarters, break-fast and a unique business opportunity was just in time and place. Initial funding of \$20,000 was received from the Y Combinator in exchange for a small interest



in the company. Later Greylock Partners, Sequoia Capital, Andreessen Horowitz, Digital Sky Technologies and Ashton Kutcher also invested in the company.

Nowadays the company has over three million lodgings listings in more than 65,000 cities and 191 countries. As of 2017, the company has raised more than \$3 billion in funding from various incubators, venture companies and investors during the course of six years from 2011 till 2017 and its last known valuation is at \$31 billion. In January 2017, it was reported that Airbnb was profitable during the second half of 2016, making it the first profitable period in company history, and it is expected to remain so through-out 2017.

The business model of Airbnb is primarily dependent on bookings being routed through its platform. The company does not own any lodging; it is merely a broker and receives percentage service fees from both guests and hosts in conjunction with every booking. On each booking, the company charges guests with a 6 to 12% guest service fee and charges hosts with a flat 3% host service fee. The longer the stay the lesser is the booking fee billed to the travellers. Registration and account creation is free of charge. Hosts can create a listing by selecting "list your space" after logging in. Pricing is determined by the host, with recommendations from Airbnb. Hosts can charge different prices for nightly, weekly, and monthly stays and can make adjustments for seasonal pricing. Hosts add descriptions of the residence, amenities, available dates, cancellation policies, and any house rules as well as upload photos of the lodging that is offered. For eligible hosts, Airbnb offers free professional photography. Interested parties are required to message the property owner directly through Airbnb to ask questions regarding the property unless the host has enabled "instant book", in which case requests for stays are accepted automatically. A host has 24 hours to accept or decline a booking. Hosts are never required to accept a reservation. After the reservation, hosts coordinate meeting times and contact information with guests.

Users (guests) can search for lodging using a variety of filters including lodging type, dates, location, and price. The site provides a private messaging system as a channel for users to message one another privately before booking and accepting reservations. Once the reservation is placed, the guests awaits for the booking confirmation from the property owner. Any Airbnb host can require their prospective guests to obtain "Verified IDs" before booking, meaning that they are required to scan a government-issued ID to verify their identity. Initially upon registration to the website user is requested to provide valid email address and telephone number. After the booking is confirmed,



Airbnb charges guest with the total price for the accommodation. The total price is combined of a night rate multiplied by the number of nights, service fee and cleaning fee. Airbnb facilitates online payments from guest to host through its Security Payments feature, which holds the entire payment and processes payment transactions after the guest check-out or 24 hours after guest check-in, whichever appears earlier. At the option of the host, Airbnb facilitates security deposits and mandatory non-refundable cleaning fees, the former of which is held until the property is vacated.

All relationships arranged through Airbnb are built on mutual cooperation and trust between hosts and guests established with the help of rating and review system. Airbnb platform requires a creation of user profiles so that members can learn about their hosts and guests ahead of time. After the guest completes a stay, the host and guest have the option of leaving references for each other and reviews of their stay, which are posted publicly, providing for an online reputation.

The services that operates on principle of sharing economy has been often addressed with trust issues. Airbnb originally represented the service as a bulletin board with event specificity that connected tenants and property owners, and then left them to contact one another. However, over the years, the company expanded its scope of activities and took on an even greater role - accepting all payments, maintaining a feedback base, hiring professional photographers to shoot rooms and creating a communication platform for the website users. In that sense, Airbnb started to operate as a trustworthy intermediary, which does not require people to trust merely each other, since the users can trust a centralized system that protects their interests. The infrastructure of Airbnb reminds an organization that is responsible for all the risks of customers and exempts them from the responsibility for assessing the credibility of the other party to the transaction.

The corporate system of Airbnb is marked as one of the best to protect the property of property owners from damage or other damage that warns large groups of people or novice tenants that they are required to take care of the apartments of their owners. Each element of booking - reservation, payment, communication between the tenant and the property owner, reviews - all pass through the Airbnb platform, and so the service tracks every step of the users from viewing the ad until checkout of the apartment.

If the system identifies the words “Western Union” in communication between the property owner and the tenant, it blocks the message, as it may be an indicator that users try to bypass the Airbnb system. If the tenant and property owner constantly reserve each other's rooms, the system



regards this as an attempt to create a positive rating on the site. In addition, if a new user immediately after registering to the website, books an expensive accommodation facilities, it can be considered by the system as money laundering. The system for collecting analytical information Airbnb takes into account these factors, and then assigns to each object of placement "points of confidence". If the apartments have a low score, the system automatically marks that further research is required. Airbnb claims that the system works successfully.

Nevertheless, Airbnb recommends the hosts to obtain insurance, which covers damages caused by guests. Airbnb offers secondary insurance, called its "host guarantee". The guarantee covers property loss and damage due to vandalism and theft up to \$1,000,000. The company also initiated a 24-hour customer service hotline and implemented additional security features.

In addition to the Airbnb website, the company offers mobile applications for iOS, Apple Watch, and Android. These offer geolocation and much of the functionality of the website, including (which allows faster response times) private messaging. The mobile apps have received several awards. The service is available in 26 languages and operates globally

Uber example

Uber was launched in San Francisco in June 2010 and initially represented a service providing cars of the executive class. That was the very right place to launch the project as the geeks from the Silicon Valley fell in love with the application, which made it possible to track the approaching taxi, immediately contact the driver, do not think about cash (the payment was debited automatically from the card) and receive the car quickly.

Plus, the ratings system that crossed out the image of the old school taxi driver: the lower the driver's rating, the less orders it can count on, and after dropping the average score below 4.6, it's likely that the system will be disconnected.

Nowadays in every city Uber comes on a detailed scenario: the launching team of three local employees exploring the market, the features of legal regulation, demand, determining how many times the application was opened in this city, and hire drivers. Additionally, social media campaign take place. The launch is usually accompanied by a solemn party, to which the most influential people of the city are invited.



In 2012, Uber strengthened its position by launching the "budget" service UberX - 35% cheaper and expanding the class of cars that could cooperate with the company. Uber basically worked only with "free agents", taking 20% of the payment for trips and giving drivers time to take care of the rest, including paying for gasoline and insurance. The company allowed to become a taxi driver to everyone who had a car in proper condition and an iPhone, promising a guaranteed income of \$10 to \$26 per hour depending on the demand of passengers and the ability to use Uber "on freelance" as an additional source of earnings. It was with the launch of UberX that the expansion of the company began, which already in 2014 took the form of an epidemic: in a year the service entered 210 new markets and expanded the geography of its presence from 29 to 53 countries. In 2014, Uber discovered a new city almost every day. At the end of 2014, the number of Uber partner drivers making at least four trips a week reached 160,000, of which 38% referred to Uber as a principle position.

The same method Uber used to fight the worst competitor in the US, created two years later in San Francisco, the service Lyft. In August 2014, Lyft complained that during the year 177 employees of Uber deliberately made and cancelled more than 5,500 orders. And The Verge published details of the operation, which in Uber itself was called SLOG (Supplying Long-Term Operations Growth). Uber recruiters ordered Lyft cars, trying to "hook" their drivers during the trip. Some of them even had a driver's "starter pack" - the iPhone and documents with which he could immediately start working in the new company. The recruiter's reward for each defector reached \$ 750.

Uber does not disclose the results of its activities. In the most obvious sense, Uber works on principle of aggregation of consumer demand for a service through a mobile application and enabling the user to find a suitable performer of this service offline by pressing a button on the mobile device. Uber did not reinvent the taxi anew, it connected drivers through the technological platform with passengers who were able to get the service quickly and at the moment when they need it, bypassing the stage of search and selection of the performer.

More efficient sharing of resources is one of Uber's goals. The last idea of its founders is UberPool, a tool which provide an opportunity to share a trip with a stranger following along the same route. This will make the prices even lower and increase efficiency.

The company has long been testing the delivery service for anything during the day, Uber-RUSH and the food delivery service UberEATS. In October, UberRUSH was launched in New York, San Francisco and Chicago.



The future plan of Uber is to use unmanned vehicles which will reduce the cost of the trip. The company has already opened its own laboratory for the development of a prototype UAV, luring several dozen scientists from Carnegie Mellon University, and agreed to co-operate with the University of Arizona in the field of optical technology research for un-manned vehicles.

Collaborative business model

The collaborative business model is based around a digital internet platform, which creates online marketplace and provides a range of services for buyers and sellers/service providers who are, at least in the initial stages of platform development, typically consumers. The platforms tend to operate as intermediation services, also facilitating payment. They are typically reach a larger scale quicker than traditional companies due to the extensive use of Internet and the absence of relevant regulation to control sharing economy companies' activity.

The most commonly known sharing economy model is a peer-to-peer (P2P) model (Figure 6). The goods or services are being redistributed between individuals via digital platform, resulting in a sharing economy platform itself not producing either good or service. The function of the platform in this case limits to intermediary role facilitating the demand meet the supply. The examples of such services in current re-search include Airbnb, Uber, ShareIt Blox car, Friday Flats, PiggyBaggy, Sutochno, YouDo, and Darudar.

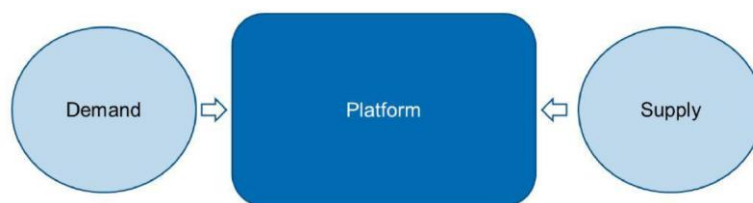


Figure 6 Structure of a peer-to-peer model [8]

The peer-to-peer business model can either be free of charge (e.g. Darudar, PiggyBaggy) or can take commission merely from consumers (e.g. YouDo), or suppliers (e.g. Sutochno), or both (Airbnb). As can be seen in the case studies, the non-profit companies finance themselves via advertising or sponsoring or donations. While the other type of companies that charge for a service appear to be



profitable business models, since the service costs little to provide once the initial fixed costs for installing the platform and marketing have been incurred.

The second sharing economy model is a business-to-consumer (B2C) model, in which a sharing economy company not merely designed to meet the demand, but also supplies the good or service (Figure 7). The principle difference of such sharing economy model from traditional rental companies is in interactions with the consumer which are mainly based on technology and online platform and does not involve the need for face-to-face interactions at all. The example of such company in case studies are Yandex.Taxi and ResQ Club, however, the latter one does not provide catering services itself rather than operating on behalf partner restaurants and dining premises.

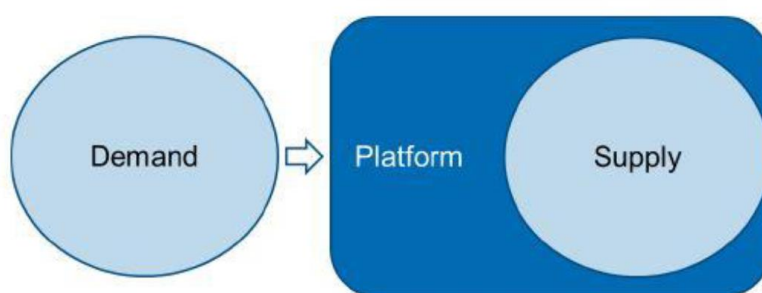


Figure 7 Structure of a business-to-consumer model [8]

The third, less obvious but still existent form of sharing economy is business-to-business model, which implies the rent of workspace/services/semi-finished goods or other assets by another company instead of buying it.

The revenue models implemented by platforms vary depending on the type of service. According to the case study results, most of the platforms generate revenue through fixed or variable commissions varying from 1% - 2% for peer-to-peer lending to up to 20% for ridesharing services. The business model also stipulates commercial-free operation at the initial stage of the platform development.



The innovation of the business model involve change in service supply process, redirecting the ability to provide services from enterprises to individuals. The involvement of individual providers significantly expand the market, which in turn contributes to the business model quick success.

The end service provided by individual service provider gains higher visibility by delegating sales and marketing functions to a platform, while the platforms enable individual service provider to offer a marketable service to a larger market. The platforms in fact has opened up an access to markets. The result of such cooperation leads to reducing the costs of the end service.

Collaborative platforms establish a sustainable market allowing interactions between two or more distinct groups of users, of which some are interested in service provision (“sup-ply users”), while the other require an end service (“demand group”). Collectively these users generate common value of a platform. An individual is not bound to the specific group and may act differently at various stages of the platform usage according to his personal needs. The market development of a platform depends on the network effect, economies of scale, congestion, platform differentiation and multi-homing.

Collaborative platforms employs the supply potential of the consumer sector, which allows them to grow dynamically. However, the subject of contention between service providers and service customers of such platforms include the minimal expected level of service standards. This result in platforms introducing some standardisation measures, such as guidelines on service provision, terms and conditions, leasing standard types of equipment and in some cases guidance on pricing. Platforms facilitating trade operation based on cost-sharing type of service set a maximum price, while platforms based on non-monetary exchange, such as Darudar, give strict price guidance to ensure the value of ex-changed items is equitable.

Since the transactions on collaborative platforms are not face-to-face operations, trust-building mechanisms play an important role in sharing economy development. In general, establishment of mutual confidence is more complex set of actions for collaborative platforms than for traditional businesses. The reason for that derives from the nature of services since this form intangible products is more individual and less measurable. Trust may be established via several methods including the transparency of information provided on the platform and the usage of personal data submitted, objective ratings and review systems, or endorsement from an independent institution or regularly body to certify the trust building mechanisms. The most prominent collaborative platforms such as Airbnb or Uber implement a mix of strategies outlined above.



Efficiency and competitiveness

Sharing economy companies have significantly increased competition in the markets they are active in. The reason for that derives from complications associated with regulation of their activities in respective market with the help of existing laws. The sharing economy companies tend to believe that current regulations applied before sharing economy appearance are not relevant for the sharing economy companies. The statement is being supported by the fact that the supplier in sharing economy services is actually an individual, not a company, thus framework applied to incumbent firms cannot be applied. While traditional companies disagree and insist on applying the same framework and regulations to all companies, including individual service suppliers, the sharing economy pioneers are lobbying their interests and try to encourage the legalization of sharing economy services with the favour to service economy.

According to the recent study on competition published by IBM in November 2015, the sharing economy is perceived as “the main competitive threat” for the next three to five years by 54 per cent of more than 5000 top managers from 70 countries. In general, managing directors are afraid of the sudden appearance of a new unexpected competitors from outside, who implies fundamentally different business model, breaks into the industry and quickly squeezes established market participants out.

These new destructive innovators, also known as sharing economy platforms, represent technology companies with the little need for massive infrastructure and require merely the initial fixed costs for installing the platform and marketing. In fact, the sharing economy companies create businesses on top of existing infrastructure by eliminating intermediaries in relations between service consumers and service providers with the help of techno-logical platforms capable of regulating the interactions. The more efficient sharing of previously inadequately loaded resources is at the spotlight of such enterprises. According to PwC study on the sharing economy published in 2015, the current production capacity is used less than 20 per cent, which gives a huge chance for the sharing economy development.

The elaborating effectiveness criteria of collaborative platforms in compare with traditional businesses include competitive price, greater market efficiency and optimal distribution of goods. The greater market efficiency is achieved through a complete distribution of information on service, buyers and providers, which enables better matching of demand and supply. The latter leads to the optimal



distribution of goods according to preferences thus increasing the resource efficiency. The collaborative business model efficiency is facilitated by the extensive user network of platform and by digital component of P2P and B2P platforms, offering a better search possibilities.

The competitive advantage of sharing economy businesses over incumbent companies is residing in the totally different approach towards ownership. In fact, service providers such as Airbnb or Uber, which are considered the evils competitors of traditional hotel and transportation industries subsequently, do not own a single car or bed. This leads to increased business model efficiency and lower capital and labour input required while operating the service.

The comparative analysis of the P2P accommodation business model with a traditional hotel shows that capital and labour inputs on the stage of planning and implementing are lower in the P2P platform, while the post-visiting stage require similar capital inputs in traditional hotel and P2P platform, and the higher labour input in P2P platform.

Even though, the traditional hotel is more reliable and has lower initial coordination costs between hotel and guest, yet more information asymmetry, the comparative efficiency of P2P platforms lies in reduced transaction costs in spite of higher coordination requirements. As addition to this, greater market efficiency and allocative efficiency are presented. The efficiency advantages of hotel during and after visit derives from professionalism, safety and internalization of externalities, while the P2P platform can boast allocation and price efficiency and reduce information asymmetries by lower quality driven out of market.

Obstacles

The sharing economy is very dynamic phenomenon with new companies being started all the time and existing sharing economy businesses are constantly expanding onto new markets. However, the legal uncertainty undermines the sharing economy companies because of the arising concern related to sustainable development of the model. Moreover, the ever-increasing number of law suits filed against sharing economy services by traditional companies result in expensive trial processes. In fact, most of the growing industries' discontent is often targeting operation of those companies reviewed as the best practices in the current research. The depletion of financial resources of the growing companies may occur, if the legal battle last long enough. In the worst scenario, it may force sharing economy businesses to leave the market.



Indeed, the considerable hurdles identified by the sharing economy players so far include more legislative uncertainty rather than barriers for economic development. The lack of regulations often excludes sharing economy services from legislative environment, holding the later as a hostage of controversial legal situations.

Thus, a comprehensive analysis of sharing economy markets by competent authorities and revision of the current regulation processes is imperative. It is important to distinguish whether the frameworks that were originally designed to regulate the market of traditional companies apply to non-traditional companies as well. Additionally, it is important to acknowledge the fact that the operational markets of sharing economy are heterogeneous and can hardly be covered by a single policy. Therefore, there are might be a need to examine each affected market separately in order to find the solution.

On the one hand, the application of existing regulations and framework to all market operators, regardless nomenclature, will poses a competitive advantage for the incumbent companies and significant threat to sharing economy businesses. For instance, peer-to-peer accommodation services will not be able to compete with hotel industry in terms of fire safety, hygiene and pollution control, if the requirements are applied equally.

On the other hand, the more favourable solution could include the revision and possible change of the existing regulations with the acknowledgment of digitalization and its effect on business model. This will result in a healthy competition in the respective markets, adding up to a greater allocative efficiency and positive impact on consumers, as the supply will increase and, the prices likely to decrease.



4. Sharing economy and cryptocurrencies

When looking at recent technological improvements, grassroots efforts have defined most of them [9]. Whether we're talking about file sharing via BitTorrent, disrupting money via bitcoin, or even the emergence of the web itself, innovation has often trickled up, rather than down. Even some of the companies that dominate today's Internet started small, and gained traction quickly. Next generation of sharing economy companies could follow the same principle, backed by cryptocurrency-like tokens.

The sharing economy has huge potential as it revolves around the unlocking of otherwise unused assets. It typically uses marketplaces, in which one set of providers offers services or products for rent to another set of customers. It typically uses technology to help bring these people together. Examples include Uber, the ride-sharing service that enables people with their own vehicles to provide rides to consumers, who are charged based on the length of their ride. It's all handled via the mobile phone and Uber's back-end system. Uber has just been valued at \$40bn, following its latest fundraising round. Those numbers indicate that the sharing economy is more than just hot air. Indeed, PwC says that worldwide revenues from unlocking these assets could hit \$335bn by 2025.

The sectors that can benefit from this business model are many and varied; transportation is a key one (taxi rides are down 65% in San Francisco thanks to ride-sharing firms) and accommodation is another. AirBnB, which uses the Internet to match up people wanting to rent out their houses with visitors, has a \$13bn valuation. Then there's music streaming, peer-to-peer (p2p) staffing (Elance, TaskRabbit and others), and even p2p finance, with sites like Lending Club.

Bitcoin micropayments and its role in sharing economy

One of the biggest barriers for shared economy companies has been credit cards, which have suffered from numerous security issues, and don't lend themselves to highly agile, flexible payment models. There have been some leaps forward, with services like Stripe, which make it easier to coordinate payments in a marketplace model. Even with them there are limitations. Stripe is great for sharing economy operations in some countries, but not others (for example, it doesn't support Canadian businesses sending funds to third-party bank accounts).



Bitcoin would certainly make payments easier still, because people wouldn't have to hand over their credit-card information at all when participating in a sharing economy marketplace.

The question arises what happens as more services are leased on a more granular basis. If one person wants to use, for example, three minutes' of someone's password-protected Wi-Fi hotspot, 10 minutes' parking in someone's driveway, or a fast-charge for my electric car, how will those payments be made? What about if a person wants to pay for an online expert to solve his Ruby on Rails problem, but it only takes a three-minute video call? This is something that large marketplace companies can support to a certain extent today. For example, Car2Go rents out cars by the minute and aggregates charges to a credit card.

Bitcoin's micropayments protocol makes that kind of thinly sliced charging far easier. Some companies are already looking at bitcoin payments. The two giants of the industry are sympathetic too. AirBnB gave Coinbase the opportunity to speak at its headquarters earlier this month, and PayPal's Braintree payments processor, which serves some of the largest sharing economy marketplaces, has also decided to accept bitcoin.

Issue with peer to peer not being what it claims to be

This is an issue that cryptocurrencies may be able to solve in the future. At the moment, the phrase 'p2p' (peer to peer) is floating around sharing economy circles to describe what's happening. Theoretically, people are doing everything from swapping house visits to getting rid of their second-hand goods on a P2P basis. In truth, most of the sharing economy isn't P2P at all. True peer to peer involves direct communication between one node and another, but most marketplaces sit in the middle, acting as intermediaries between these conversations and transactions.

This creates some easy regulatory targets. Sharing economy businesses tend to disrupt entrenched sectors, such as accommodation rental and taxicab services. AirBnB is already the target of an anti-accommodation sharing group that objects to what it sees as a temptation for full-time apartment renters to violate their leases. Uber, too, has been the target of multiple lawsuits from state insurance agents worried about its insurance practices, and from regulators protesting the company's actions.

A crypto-based sharing economy



One of the most significant promises of bitcoin was its ability to operate in a decentralised, autonomous way, with a degree of trust that was coded into the network. Cryptocurrencies excel at payments and they could also be used to run the other parts of a sharing economy service. One other part of the system involves matching marketplace participants together. That requires at least two things: a web or mobile app (depending on the nature of the service), and a back-end system that could track the status of all marketplace participants.

Bitcoin's cryptographic algorithm has already proven itself capable of tracking an entire network's status without a central point of control, so technologically, these seems feasible. Other decentralised marketplaces concentrating on product sales rather than sharing economy business models are already emerging. Bitmarkets, which launched in the end of 2014, is one such marketplace; while OpenBazaar is another trying to revolutionise e-commerce sales with decentralisation.

One of the biggest problems facing a sharing economy application today may indeed be a lack of visibility. The venture-backed companies have pots of cash to throw at marketing and technology development. Others are more sanguine about it. Emma Clarence, co-author of a report on the collaborative economy for UK innovation charity Nesta, says that co-owned sharing economy marketplaces backed by crypto-tokens might have some future traction.

Building trust in sharing economy systems

Another big issue for any sharing economy app will be trust. Large marketplaces have plenty of unknown participants, and there will always be bad actors. Both Bitmarkets and OpenBazaar use escrow to tackle that issue. Could crypto-based tokens be used as a means of building trust and social capital in a sharing economy network, perhaps by using a token designed specifically to represent value in the service? The blockchain excels at transparency. An address that accrued a particular amount of social capital could be seen by everyone.

As the cryptocurrency community evolves, we're seeing more talk about decentralised apps (Dapps). These applications issue their own tokens, with the tokens gaining value as the relevance and importance of the application increases. Users gain more tokens if they contribute to the operation of the site. The concept of a DApp-based sharing economy marketplace with no large intermediary is worth discussing. In fact, some people trying to spark a decentralised sharing economy have gone further than that.



4.1. Cryptocurrency benchmarking study

The Global Cryptocurrency Benchmarking Study [10] is the first global cryptocurrency benchmarking study to systematically investigate key cryptocurrency industry sectors by collecting empirical, non-public data. The study gathered survey data from nearly 150 cryptocurrency companies and individuals, and it covers 38 countries from five world regions. It is focused on alternative payment systems and digital assets. It is the first study of its kind to holistically examine the burgeoning global cryptocurrency industry and its key constituents, which include exchanges, wallets, payments and mining. The findings are both striking and thought-provoking. First, the user adoption of various cryptocurrencies has really taken off, with billions in market cap and millions of wallets estimated to have been 'active' in 2016. Second, the cryptocurrency industry is both globalised and localised, with borderless exchange operations, as well as geographically clustered mining activities. Third, the industry is becoming more fluid, as the lines between exchanges and wallets are increasingly 'blurred' and a multitude of cryptocurrencies, not just bitcoin, are now supported by a growing ecosystem, fulfilling an array of functions. Fourth, issues of security and regulatory compliance are likely to remain prevalent for years to come. The findings of the study are based on the collection of non-public data from nearly 150 companies and individuals, and the report offers new insights on an innovative and rapidly evolving sector of the economy.

Cryptocurrencies such as bitcoin have been seen by some as merely a passing fad or insignificant, but that view is increasingly at odds with the data we are observing. As of April 2017, the combined market value of all cryptocurrencies is \$27 billion, which represents a level of value creation on the order of Silicon Valley success stories like AirBnB. The advent of cryptocurrency has also sparked many new business platforms with sizable valuations of their own, along with new forms of peer-to-peer economic activity.

Over 300 academic articles have been published on various aspects of bitcoin and other cryptocurrencies over the past several years. However, these works tend to take a narrow focus. To our knowledge this is the first global cryptocurrency study based on non-public 'off-chain' data. We designed the study to present an empirical picture of the current state of this still maturing industry, and to explore how cryptocurrencies are being used today. The findings from this study will be useful to industry, academics, policymakers, media, and anyone seeking to better understand the cryptocurrency landscape.



Main highlights of the study:

- The current number of unique active users of cryptocurrency wallets is estimated to be between 2.9 million and 5.8 million.
- The lines between the different cryptocurrency industry sectors are increasingly blurred: 31% of cryptocurrency companies surveyed are operating across two cryptocurrency industry sectors or more, giving rise to an increasing number of universal cryptocurrency companies.
- At least 1,876 people are working full-time in the cryptocurrency industry, and the actual total figure is likely well above two thousand when large mining organisations and other organizations that did not provide headcount figures are added.
- Average security headcount and costs for payment companies and exchanges as a percentage of total headcount/operating expenses are similar, but significantly higher for wallets.

4.2. Cryptocurrency overview

Bitcoin began operating in January 2009 and is the first decentralised cryptocurrency, with the second cryptocurrency, Namecoin, not emerging until more than two years later in April 2011. Today, there are hundreds of cryptocurrencies with market value that are being traded, and thousands of cryptocurrencies that have existed at some point. The common element of these different cryptocurrency systems is the public ledger ('blockchain') that is shared between network participants and the use of native tokens as a way to incentivise participants for running the network in the absence of a central authority. However, there are significant differences between some cryptocurrencies with regards to the level of innovation displayed (Figure 8).

Most cryptocurrencies are largely clones of bitcoin or other cryptocurrencies and simply feature different parameter values (e.g., different block time, currency supply, and issuance scheme). These cryptocurrencies show little to no innovation and are often referred to as 'altcoins'. Examples include Dogecoin and Ethereum Classic.



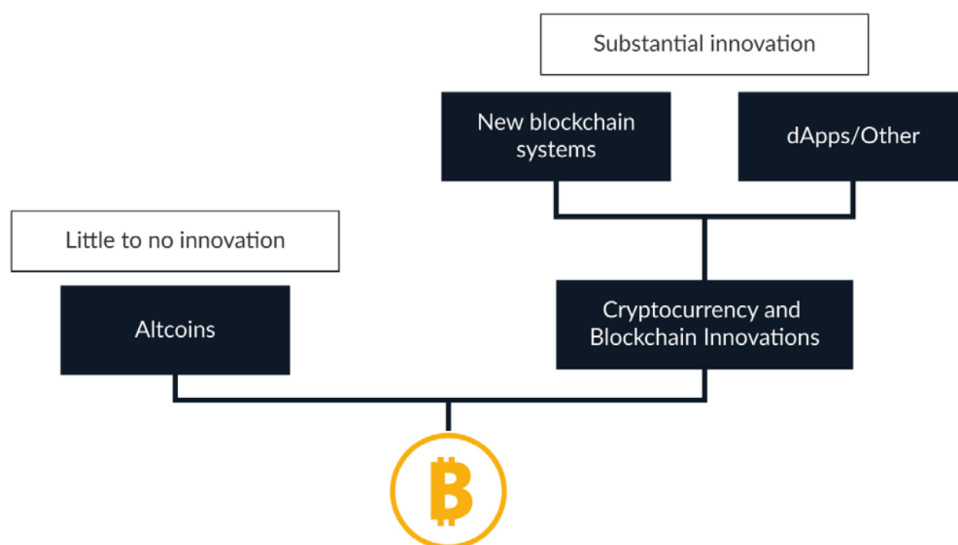


Figure 8 The world of cryptocurrencies beyond Bitcoin [10]

In contrast, a number of cryptocurrencies have emerged that, while borrowing some concepts from Bitcoin, provide novel and innovative features that offer substantive differences. These can include the introduction of new consensus mechanisms (e.g., proof-of-stake) as well as decentralised computing platforms with ‘smart contract’ capabilities that provide substantially different functionality and enable nonmonetary use cases. These ‘cryptocurrency and blockchain innovations’ can be grouped into two categories: new (public) blockchain systems that feature their own blockchain (e.g., Ethereum, Peercoin, Zcash), and dApps/Other that exist on additional layers built on top of existing blockchain systems (e.g., Counterparty, Augur). The combined market capitalisation (i.e., market price multiplied by the number of existing currency units) of all cryptocurrencies has increased more than threefold since early 2016 and has reached \$27 billion in April 2017 (Figure 9). A relatively low, but not insignificant share of value is allocated to duplication (i.e., ‘altcoins’), while a growing share has been apportioned to innovative cryptocurrencies (‘cryptocurrency and blockchain innovations’).



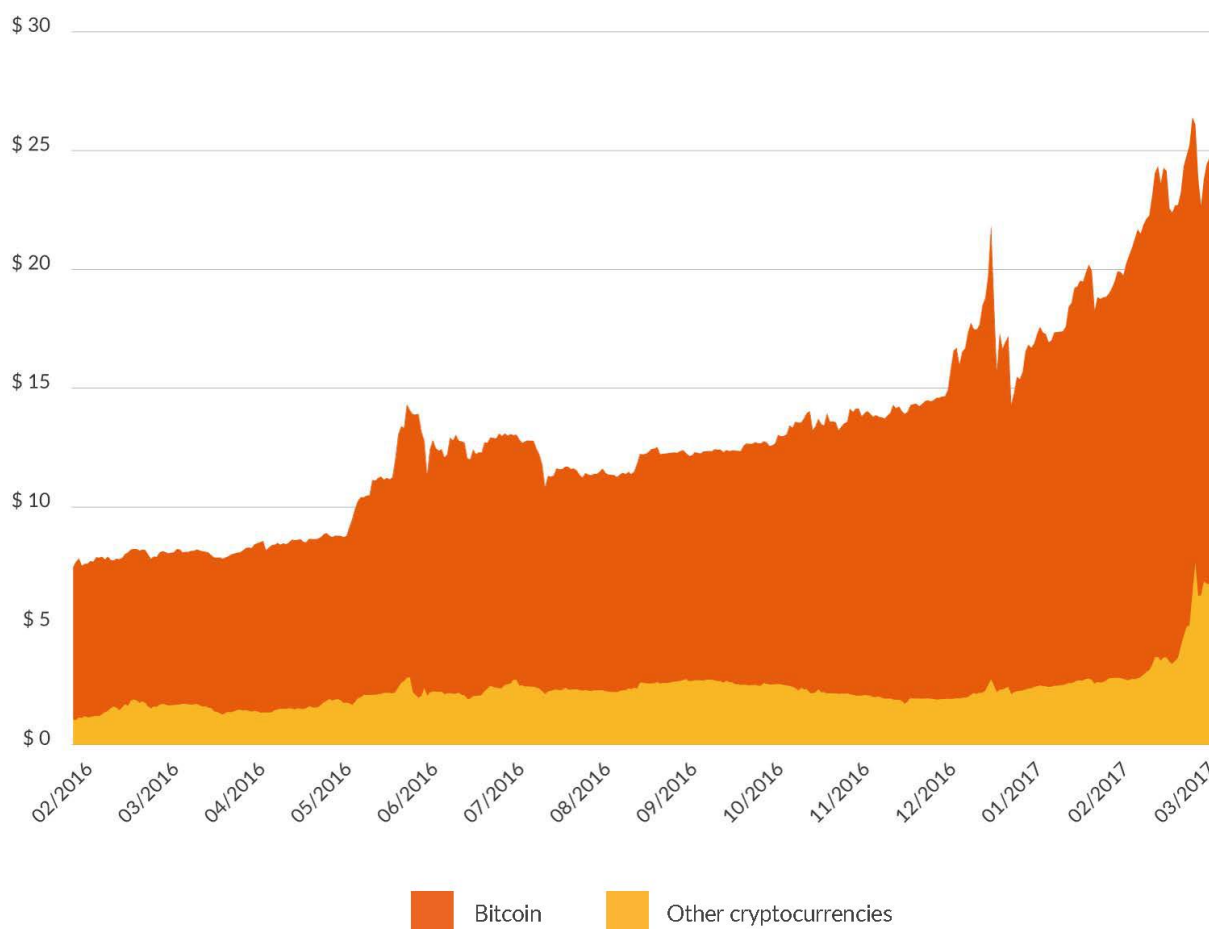


Figure 9 The total cryptocurrency market capitalisation has increased more than 3x since early 2016, reaching nearly \$25 billion in March 2017 [10]

The cryptocurrency industry

A multitude of projects and companies have emerged to provide products and services that facilitate the use of cryptocurrency for mainstream users and build the infrastructure for applications running on top of public blockchains. A cryptocurrency ecosystem, composed of a diverse set of actors, builds interfaces between public blockchains, traditional finance and various economic sectors. The existence of these services adds significant value to cryptocurrencies as they provide the means for public blockchains and their native currencies to be used beyond in the broader economy.

While the cryptocurrency industry is composed of many important actors and groups, the study limits the analysis to what is believed are the four key cryptocurrency industry sectors today: exchanges, wallets, payments companies, and mining. The lines between the different



cryptocurrency industry sectors are increasingly blurred and a growing number of cryptocurrency companies can be characterised as ‘universal’ platforms

The cryptocurrency users

It is impossible to know precisely how many people use cryptocurrency. Estimating both the number of cryptocurrency holders and users is a difficult endeavour as individuals can use multiple wallets from several providers at the same time. Moreover, one single user can have multiple wallets and exchange accounts for different cryptocurrencies and thus be counted multiple times. In addition, many individuals are using centralised wallet, exchange or payment platforms that pool funds together into a limited number of large wallets or addresses, which further complicates the picture.

According to the earlier referenced 2016 report from the Boston Federal Reserve, 0.87% of US consumers are estimated to have owned cryptocurrency in 2015, which amounts to around 2.8 million people in the US alone. Based on calculations using their own user data, Coinbase and ARK Research estimate that in 2016 around 10 million people around the world have owned bitcoin.

Using data obtained from study participants and assuming that an individual holds on average two wallets, we estimate that currently there are between 2.9 million and 5.8 million unique users actively using a cryptocurrency wallet. This figure has significantly increased since 2013 (Figure 10). It is important to note that our estimate of the total number of active wallets does not include users whose exchange accounts serve as their de facto wallet to store cryptocurrency, nor users from payment service providers or other platforms that enable the storage of cryptocurrency. In other words, the total number of active cryptocurrency users is likely considerably higher than our estimate of unique active wallet users.



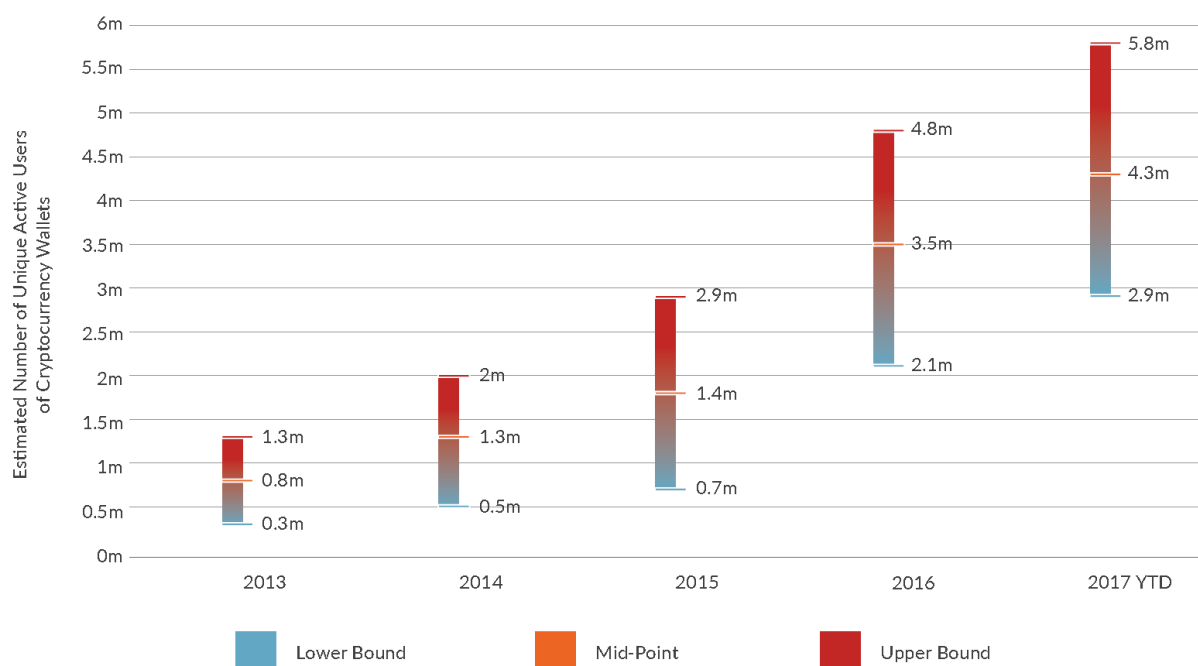


Figure 10 The estimated number of unique active users of cryptocurrency wallets has grown significantly since 2013 to between 2.9 million and 5.8 million today [10]

For a variety of reasons, determining the geographical distribution of cryptocurrency users is challenging. Appendix C contains a discussion of the geographical dispersion of users based on data we collected and public data sources.

The geographical dispersion of cryptocurrency users

Establishing an exact picture of where cryptocurrencies are used and in which countries the level of activity is highest constitutes a challenging if not impossible task. A lot of cryptocurrency companies and platforms do not share user data for a variety of reasons, including protecting user privacy, or the nature of their services prevents the collection of location-based data (e.g., wallet providers that offer software downloads and do not require users to sign up for the service). However, various public resources are available that if combined can contribute to providing a rough estimate of where most activity is taking place.

One indication of activity can be drawn from LocalBitcoin volumes, a P2P exchange platform that connects users in 249 countries and lets them meet in person or electronically exchange cryptocurrencies. While volumes are small compared to large exchanges, they are reaching all-time



highs since early 2017 and provide an indicator of where interest in cryptocurrencies is growing.

Volumes have experienced particularly high growth in emerging countries located in Asia (China, India, Malaysia, Thailand), Latin America (Brazil, Chile, Colombia, Mexico, Venezuela), Africa and the Middle East (Kenya, Nigeria, Saudi Arabia, Tanzania, Turkey) and Eastern Europe (Russia and Ukraine).

Looking at the geographic distribution of bitcoin and other cryptocurrency ATMs, it turns out that 94% of all publicly known ATMs are based in North America and Europe, with the US and Canada having a total share of 59% and 15% of all ATMs, respectively. Africa and the Middle East as well as Latin America host less than 1% of worldwide cryptocurrency ATMs.

According to Coinmap, a website listing nearly 9,000 known venues across the world that accept cryptocurrencies, a significant concentration of merchants can be observed in North America and especially Europe. Some activity can also be observed in the Asia-Pacific region (mostly concentrated in South Korea, Japan and Australia), Latin America (mainly Brazil and Argentina) and Africa and the Middle East (notably in Kenya, South Africa, and Israel). However, it should be noted that only a minority of the more than 100,000 merchants accepting cryptocurrency worldwide are represented on Coinmap.

Running a full node is another measure of where activity is taking place. Looking at the distribution of bitcoin full nodes over a time window of one year, we can observe that the US has the highest number of full node operators of all countries. From a regional perspective, node figures are in-line with the merchant figures as the majority of full nodes are run in North America and Europe, with some activity being observed in other regions. However, it should be noted that the origin of a full node can be obfuscated.

Finally, based on user data obtained from some participating incorporated wallet providers and payment platforms, we can break down customer share by world region. It turns out that nearly 40% of cryptocurrency users are based in the Asia-Pacific region, followed by Europe with 27% (Figure 11). The share of North American users is surprisingly low and not in-line with the above-mentioned figures. However, it should be noted that these figures only represent data from a limited number of wallet providers and payment platforms, and do not take into account users from exchanges as well as mining pools. In addition, figures are not weighted by the number of users as these are mostly secret and/or difficult to establish given the type of service that the respective companies are providing.



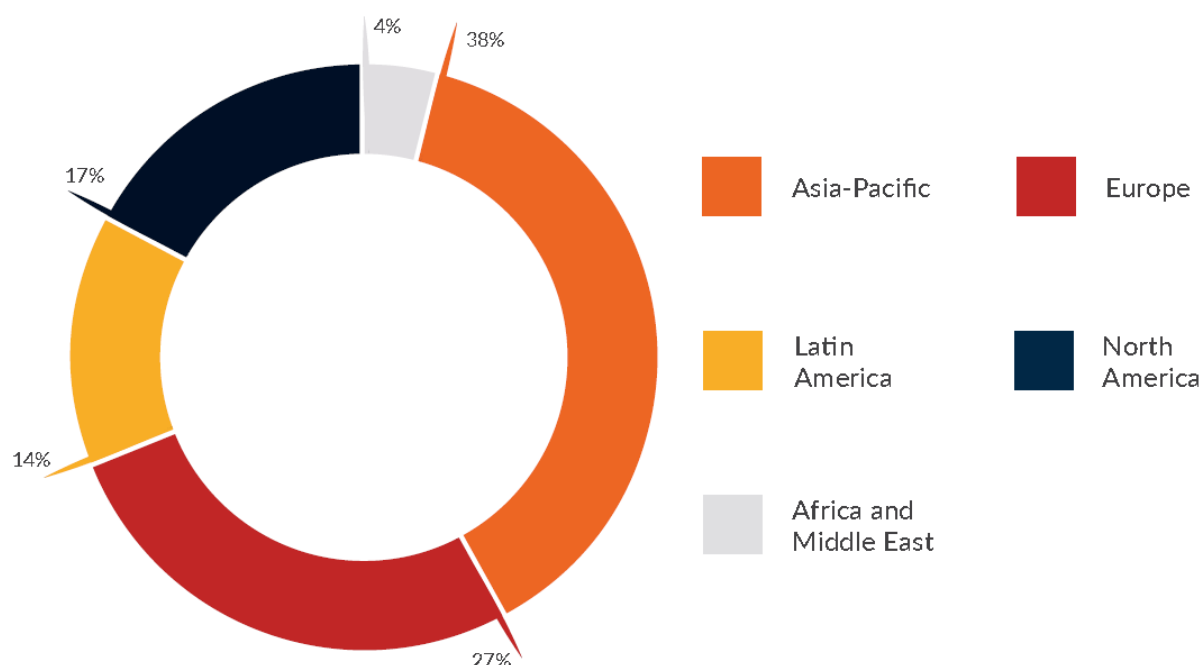


Figure 11 Cryptocurrency user share by region (based on combined wallet and payment provider data) [10]

In conclusion, it appears that cryptocurrency adoption is most advanced in North America and Europe, but an increasing number of activity (and users) can be observed in other regions as well, with activity growing relatively quickly in some emerging countries in Asia, Latin America, and Africa and the Middle East.

4.3. Exchange of Cryptocurrency

Exchanges provide on-off ramps for users wishing to buy or sell cryptocurrency. The exchange sector is the first to have emerged in the cryptocurrency industry and remains the largest sector both in terms of the number of companies and employees. Exchanges provide services to buy and sell cryptocurrencies and other digital assets for national currencies and other cryptocurrencies. Exchanges play an essential role in the cryptocurrency economy by offering a marketplace for trading, liquidity, and price discovery.

A cryptocurrency exchange is any entity that allows customers to exchange (buy/sell) cryptocurrencies for other forms of money or assets. Exchanges were one of the first services to



emerge in the cryptocurrency industry: the first exchange was founded in early 2010 as a project to enable early users to trade bitcoin and thereby establish a market price. The exchange sector remains the most populated in terms of the number of active entities. One data services website alone lists daily trading volumes for 138 different cryptocurrency exchanges, which suggests that the total number of operating exchanges is likely considerably higher.

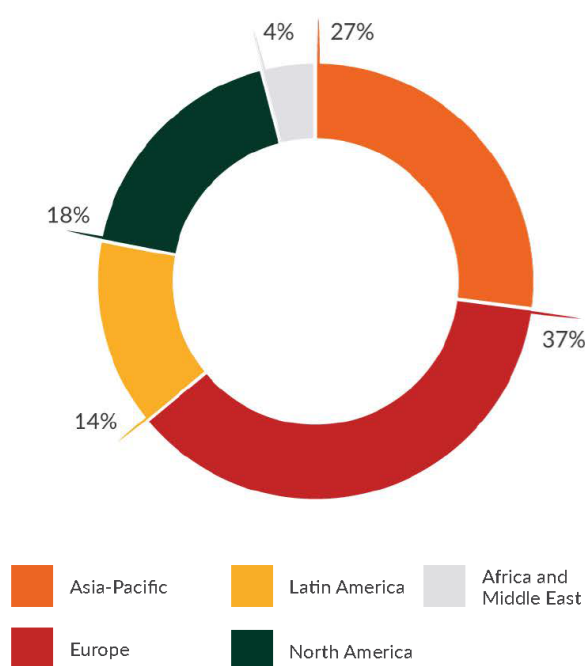


Figure 12 Number of exchanges by continents



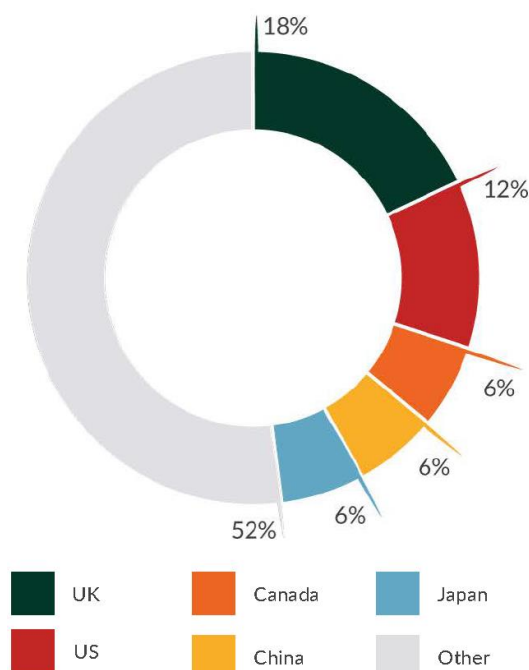


Figure 13 Number of exchanges by countries

Data has been collected from 51 exchanges based in 27 countries and representing all five world regions (Figure 12). The sample contains more exchanges from Europe than any other region, followed by Asia-Pacific. With regards to individual countries, the United Kingdom and the United States are leading with 18% and 12%, respectively, of all cryptocurrency exchanges (Figure 13). However, the market share in terms of bitcoin trading volume is substantially different: although there are a hundreds of companies providing cryptocurrency exchange services, fewer than a dozen order-book exchanges dominate bitcoin trading

In conclusion, it appears that cryptocurrency adoption is most advanced in North America and Europe, but an increasing number of activity (and users) can be observed in other regions as well, with activity growing relatively quickly in some emerging countries in Asia, Latin America, and Africa and the Middle East.



5. Sharing economy benchmarking in Mediterranean area

Data on the sharing economy (Uber, Airbnb and so on) are scarce, but a recent study estimates that the revenue growth of these platforms has been dramatic [11]. In the European Union (EU), the total revenue from the shared economy increased from around 1 billion euros in 2013 to 3.6 billion euros in 2015. While this estimate may equal just 0.2% of EU GDP, recent trends indicate a continued, rapid expansion.

This is important, as the sharing economy has the potential to bring efficiency gains and improve the welfare of many individuals in the region. This can also generate important disruptions.

While online platforms represent a small fraction of overall incomes, the share of individuals participating in these platforms is large in many European countries. For example, roughly 1 in 3 people in France and Ireland have used a sharing economy platform, while at least 1 in 10 have in Central and Northern Europe (Figure 14). In the Mediterranean area, the Croatia is the one with the highest number of total participants who used the service, followed by the Spain and Italy. In the number of total individuals who offered the service on the first place there is also Croatia followed by Slovenia and Spain.



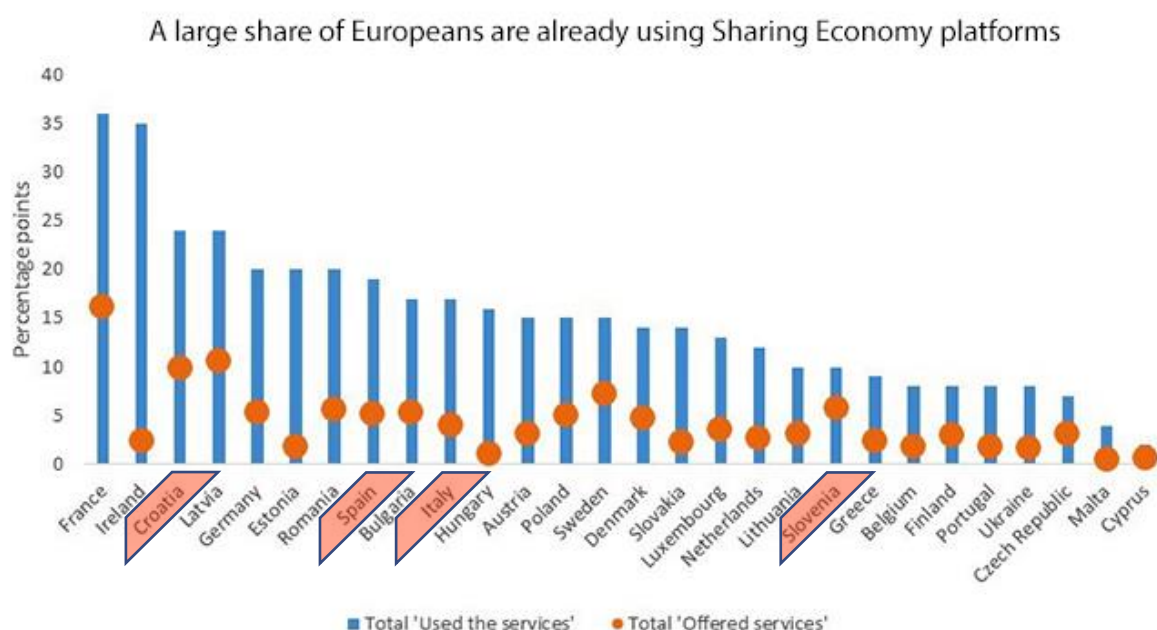


Figure 14 Own estimates in European countries [11]

At the same time, the share of the population that has used these platforms to offer services and earn an income is also significant, reaching 10% or more in France, Latvia, and Croatia. This means that at least one out of every ten adults in these countries worked as a driver for a ride-sharing platform such as Uber, rented out a room of his or her house using a peer-to-peer rental platform such as Airbnb, or provided ICT services through an online freelancing platform such as Upwork.

As mentioned above, the sharing economy can bring efficiency gains, by enabling individuals to use assets that would otherwise be idle. It can also bring environmental benefits, since assets can be shared by multiple users and thereby fewer resources are needed to make them. Moreover, the system of ratings and reviews helps lower information asymmetries by creating a mechanism to penalize bad performers and to reward good ones.

Evidence on the impact of the sharing economy on economic outcomes is still scarce. However, Cramer and Krueger (2016) find that Uber drivers spend a much larger share of the driving time and drive more miles with a passenger in the car than do taxi drivers. The authors argue that Uber is more efficient because:



- The use of Internet and smartphones allows for a much better matching of drivers and passengers than the outdated technology used by taxis
- Inefficient taxi regulations in some cities allow taxi drivers to drop off passengers outside their license area, but do not allow them to pick up another passenger there
- Uber's flexible labour supply and prices allow for a better matching of supply and demand during high and low demand periods. Evidence for Airbnb also shows important benefits for consumers, as the platform's additional competition helps bring down hotel rates.

In the recent report from the World Bank Group, Reaping Digital Dividends, they also look at the disruptions that the sharing economy can bring, noting that any policy recommendation would need to factor in this reality as well.

First, online freelancing – a version of the sharing economy - poses important challenges to existing labour market regulations as it is rarely governed by legal contracts. For example, in a sample mostly composed of Russians and Ukrainians, only about 12% of online freelancers had a full legal contract with their counterparts.

Moreover, many of them may not even have access to unemployment benefits, health insurance, or a pension, and will face higher risks of falling into poverty in old age or when facing negative shocks.

Second, while the sharing economy may bring economic inclusion, it can also contribute to economic disparities. In Europe, there are important gender, age, and skill gaps in the sharing economy. For example, while only about 10% of unskilled individuals have used sharing economy platforms, 27% of their skilled counterparts have done so.

Third, as is the case with international trade and general technological change, the sharing economy creates adjustment costs, especially for displaced workers who do not have the skills to find a new job or who made significant investments in their previous occupation such as taxi drivers.

Question that remains is do these risks outweigh the benefits of the sharing economy. Since new technologies always find a way to breach barriers, the report argues that policies designed to facilitate the transition of displaced workers toward new jobs and to adapt labour market institutions to the new forms of work may prove to be more effective for economic development than regulatory measures to prevent inevitable changes.



Following in this chapter is an example of sharing economy benchmarking in Slovenia.

Example of sharing economy benchmarking in Slovenia

Questionnaire regarding the shared economy and benchmarking shows a Slovenian example in the way of showing the best practices and insights from Slovenia.

Questionnaire: Open DOORS – BENCHMARKING SLOVENIA

- Question 1: **List top performing companies in your field. For each of the top performing companies describe best practices causing them to have best performance (please address their strategic, operational, and financial advantages).**

Seeing that the shared economy (SE) market in Slovenia is still quite underdeveloped, the only company that could be singled out is the online ride-sharing platform “prevozi.org”. In terms of performance, the success of “prevozi” lies in its simplicity. Strategically speaking, the company’s business strategy is to reach the broadest target demographic possible without resorting to high-tech, expensive or aggressive marketing technique, rather preferring to base its reach on word-of-mouth. Perhaps the most prominent strategic advantage of theirs is that they do not rely on a fixed set of providers, allowing anyone who is willing to accept general terms and conditions to participate. Inclusivity, rather than exclusivity, is also their biggest asset and best practice. By connecting users willing to provide a service with users looking for this particular type of service, they play the role of facilitator rather than agent. The customer feedback section is another example of best practice, as it is entirely moderated by users (with the exception of regulatory moderation to prevent hateful speech or unlawful practice) and thus provides real-life and hands-on feedback on the service.

In terms of operational advantages, low working capital and fixed asset requirements are the most prominent. The operation is cost-efficient, easy to maintain and able to spread without having to resort to excessive spending. The same applies to financial advantages as well.



- Question 2: **Identify which of the best practices, from the companies listed in the previous question, could be applied. Describe how would you adapt and implement the best practices.**

The practice with the highest level of applicability and adjustability is undoubtedly the wide reach of services and the feedback section. A user-curated feedback system provides true insight into the quality of the service, user satisfaction and areas in need of improvement.

This practice could be adapted and implemented quite easily, however, it is imperative to note that not all services and/or products are suitable for this type of feedback system. Additionally, it should be noted that user-generated feedback might not necessarily reflect the true state of affairs regarding a product and/or service, meaning that the feedback system would require balancing, either manual or algorithm-based.

- Question 3: **What are the alternatives to your present process?**

The present process might not be open to alternatives as much as to improvements and policy- or regulation-based governing. If a specific policy, regulation or other umbrella document would be adopted, it would provide a baseline assumption and common framework for processes, operations and execution, as well as basic benchmarking.

- Question 4: **What are the benefits, costs and risks of the alternatives?**

Having a common policy always brings identical risks – reducing unequal subjects to a common denominator, thus causing inequality, unequal treatment and disadvantages for certain entities, while providing other entities with an inherent advantage. Moreover, a document adopted by any national authority with insufficient or non-existent know-how



of the sector or lack of familiarity with the actual state of affairs, needs and characteristics of a particular entity or sector always leads to poor results.

In terms of benefits, a common framework would provide newcomers with better awareness of operational, financial and regulatory needs, which could promote growth in the future.

Costs of such an endeavour would most likely be negligible.

- Question 5: **Highlight areas of practice and performance requiring attention and improvement.**

Customer protection, clear pricing policies, representations and warranties, commercial associations (separate chambers for the sector/type of business), regulation in general.



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APPENDIX 1: Benchmarking: Bronze Label of the European Cluster Excellence Initiative (ECEI)

SOURCE: European Secretariat for Cluster Analysis, <http://www.cluster-analysis.org>

Clusters are complex and dynamic structures that are subject to continuous change. Strong clusters can promote economic growth through leveraging the innovation and business potential of a region. New employment opportunities, new products and services, new companies, new R&D activities and new patents can be the result of activities within a cluster. A professional cluster management can contribute to such a development through projects and services that tap into the cluster's potential. The European Cluster Excellence Initiative, initiated by the European Commission DG Enterprise and Industry, developed methodologies and tools to support cluster organisations to improve their capacities and capabilities in the management of clusters and networks. Following is the list of clusters in the Open DOORS partner countries: Croatia, Italy, Slovenia and Spain.



CROATIA

Name	Comparative portfolio	Website
Defense Industry and Competitiveness Cluster	Production and engineering	http://www.hkkoi.hr
HKKKKI	Creative industries	http://www.hkikki.eu
HKKKKI - Croatian Competitiveness Cluster of Creative and Cultural industries	Creative industries	http://hkikki.eu/

ITALY

Name	Comparative portfolio	Website
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bioPmed Piemonte innovation cluster	<u>Health and medical science</u>	http://www.biopmed.eu
DAC - Distretto Aerospaziale della Campania	<u>Aviation and space</u>	http://www.daccampania.com
DGT Molise	<u>Sports, Leisure and Tourism</u>	http://www.accademiabritannica.com/
OTIR2020	<u>Textile industries</u>	http://www.otir2020.it
Proplast	<u>New materials and chemistry</u>	http://www.proplast.it

SLOVENIA

Name	Comparative portfolio	Website
TECES	<u>Production and engineering</u>	http://www.teces.si
TECOS - Slovenian Tool and Die Development Centre: Industrial Association of Toolmakers	<u>Production and engineering</u>	http://www.tecos.si/en/

SPAIN

Name	Comparative portfolio	Website
AERA - Cluster Aeronautico Aragonés	<u>Aviation and space</u>	http://www.aeronauticaragon.org/
Agrupació d'Empreses Innovadores Tèxtils	<u>New materials and chemistry</u>	http://www.textils.cat/
AINS - Innovative business association of nutrition and health	<u>Food industry</u>	http://www.ainscluster.cat/en/
ALIA - Clúster Logístico de Aragón	<u>Transportation and mobility</u>	http://www.aliaragon.es
Aragon Food Cluster	<u>Food industry</u>	http://www.aragonalimentacion.com
Arahealth - Aragón Health Cluster	<u>Health and medical science</u>	http://www.arahealth.com
Associació Clúster Hàbitat de Catalunya	<u>Construction</u>	http://www.hcb.cat/
AVEP - Asociación Valenciana de Empresarios de Plásticos	<u>Production and engineering</u>	http://www.avep.es/
Barcelona Design Innovation Cluster	<u>Creative industries</u>	http://www.bcd.es/es/page.asp?id=514
Catalan Wine Cluster	<u>Food industry</u>	http://www.innovi.cat/ca
Catalonia Bio	<u>Biotechnology</u>	http://cataloniabio.org
Catalonia Gourmet	<u>Food industry</u>	http://www.cataloniagourmet.cat/
Catalonia Logistics	<u>Transportation and mobility</u>	http://www.catalonialogistics.com



CEEC - Catalonia Energy Efficiency Cluster	<u>Energy and environment</u>	http://www.clustereficiencia.cat/
CENFIM	<u>Creative industries</u>	http://www.cenfim.org
Centro Espanol de Plasticos	<u>New materials and chemistry</u>	http://www.cep-plasticos.com/
CEQUIP	<u>Production and engineering</u>	http://www.cequip.net
CIAC - Clúster de la Indústria d'Automoció de Catalunya	<u>Transportation and mobility</u>	http://www.ciac.cat
Cicat - The Catalan Lighting Cluster	<u>ICT</u>	http://www.cicat.cat/
CLIQIB: Clúster Indústria Química de les Balears	<u>Production and engineering</u>	http://cliqib.org/
Cluster Advanced Materials Catalonia	<u>New materials and chemistry</u>	http://www.clustermav.com
Clúster Alimentario de Galicia	<u>Food industry</u>	http://www.clusteralimentariodegalicia.org
Cluster Audiovisual de Canarias	<u>Creative industries</u>	http://www.webclac.org
Cluster Audiovisual de Catalunya	<u>Creative industries</u>	http://www.clusteraudiovisual.cat
Cluster Biomassa	<u>Energy and environment</u>	http://www.clusterbiomassa.cat
Clúster Canario del Transporte y La Logística	<u>Transportation and mobility</u>	http://www.cctl.es/
Clúster de Salut Mental de Catalunya	<u>Health and medical science</u>	http://clustersalutmental.cat
Cluster del Granito	<u>Construction</u>	http://www.clustergranito.com
Cluster Digital	<u>ICT</u>	http://www.clusterdigital.cat/
Cluster Energia	<u>Energy and environment</u>	http://www.clusterenergia.com
Cluster Food Service de Catalunya	<u>Food industry</u>	http://www.clusterfoodservice.org
CLUSTERMOTO	<u>Transportation and mobility</u>	http://clustermoto.org/
CWP - CATALAN WATER PARTNERSHIP	<u>Maritime technologies, water resources</u>	http://www.cwp.cat/
Domotys - Spanish Association for the Internationalisation and Innovation of Smart Homes and Building Companies	<u>ICT</u>	http://www.domotys.org/
EduTech Cluster	<u>ICT</u>	http://edutech.cat/
Global Sports Innovation Center	<u>Sports, Leisure and Tourism</u>	http://www.sport-gsic.com
Health-Technology Cluster – HT Cluster	<u>Health and medical science</u>	http://www.healthtechcluster.com
Helice Cluster	<u>Aviation and space</u>	http://www.helicecluster.com
INDESCAT	<u>Sports, Leisure and Tourism</u>	http://www.indescat.org
INNOVACC - Catalan Association for innovation in the pig meat sector	<u>Food industry</u>	http://www.innovacc.cat
Packaging Cluster	<u>Production and engineering</u>	http://www.packaging-cluster.com



PIMEC Logistics - Cluster for Supply Chain and Logistics	<u>Transportation and mobility</u>	http://www.pimec.org
Railgrup	<u>Transportation and mobility</u>	http://www.railgrup.net/
Solartys	<u>Energy and environment</u>	http://www.solartys.org
Southern European Cluster in Photonics and Optics	<u>Micro, nano and optical technologies</u>	http://www.secpho.org
Tanners Guild of Igualada	<u>Textile industries</u>	http://www.igualadaleather.com
Valencian Textile Business Association	<u>Textile industries</u>	http://www.ateval.com
ZINNAE - Urban Cluster for the Efficient Use of Water	<u>Energy and environment</u>	http://www.zinnae.org



APPENDIX 2: The McKinnon Benchmarks

SOURCE: McKinnon, Walker, and Davis (2000:vi-vii)

1. Governance, planning and management

- Benchmark: 1.1 Governance and leadership
- Benchmark: 1.2 University-wide planning
- Benchmark: 1.3 Strategic change initiatives
- Benchmark: 1.4 Equity planning
- Benchmark: 1.5 Clearly defined lines of responsibility & decision-making
- Benchmark: 1.6 Core business systems
- Benchmark: 1.7 Risk management
- Benchmark: 1.8 Teaching and research expenditure ratio
- Benchmark: 1.9 Corporate information systems
- Benchmark: 1.10 Organisational climate

2. External impact

- Benchmark: 2.1 Reputation
- Benchmark: 2.2 Competitiveness
- Benchmark: 2.3 Academic staff qualifications
- Benchmark: 2.4 Strategic community service
- Benchmark: 2.5 Exemplary community practices

3. Finance and physical infrastructure

- Benchmark: 3.1 Operating result
- Benchmark: 3.2 Diversity of revenue
- Benchmark: 3.3 Liquidity
- Benchmark: 3.4 External debt
- Benchmark: 3.5 Quick ratio
- Benchmark: 3.6 Academic salaries expenditure trends



- Benchmark: 3.7 Commercialisation: Net return on equity
- Benchmark: 3.8 Strategic asset management
- Benchmark: 3.9 Recurrent maintenance funding
- Benchmark: 3.10 Facilities maintenance backlog
- Benchmark: 3.11 Space management
- Benchmark: 3.12 Central teaching space usage and effectiveness
- Benchmark: 3.13 Large equipment utilisation
- Benchmark: 3.14 IT & T infrastructure

4. Learning and teaching

- Benchmark: 4.1 Learning and teaching plan
- Benchmark: 4.2 Course establishment processes
- Benchmark: 4.3 Scholarly teaching
- Benchmark: 4.4 Teaching environment
- Benchmark: 4.5 Effective academic review processes
- Benchmark: 4.6 Fitness of courses
- Benchmark: 4.7 Student progress ratio
- Benchmark: 4.8 First to second year retention trends
- Benchmark: 4.9 Equity quantitative success
- Benchmark: 4.10 Student satisfaction
- Benchmark: 4.11 Employability of Australian graduates

5. Student support

- Benchmark: 5.1 Student administrative services
- Benchmark: 5.2 Student services
- Benchmark: 5.3 Effectiveness of services

6. Research

- Benchmark: 6.1 Research & research training planning
- Benchmark: 6.2 Proportion of academic staff holding NCG OPS, or industry research grants
- Benchmark: 6.3 Proportion of academic staff with direct involvement



- Benchmark: 6.4 Research students' experience
- Benchmark: 6.5 Research higher degree completion rates and times
- Benchmark: 6.6 Research income trends
- Benchmark: 6.7 Research higher degree completions per FTE academic staff
- Benchmark: 6.8 Weighted research publications per FTE academic staff
- Benchmark: 6.9 Impact of research

7. Library and information services

- Benchmark: 7.1 Effectiveness of information planning processes
- Benchmark: 7.2 Contributions to teaching and learning
- Benchmark: 7.3 Provision of support for research
- Benchmark: 7.4 Effectiveness of collaborative alliances

8. Internationalisation

- Benchmark: 8.1 Internationalisation strategy
- Benchmark: 8.2 Culture of internationalisation
- Benchmark: 8.3 Balanced onshore international student programme
- Benchmark: 8.4 Financing of the international student programme
- Benchmark: 8.5 Students' exposure to international experience
- Benchmark: 8.6 Management of offshore delivery
- Benchmark: 8.7 Overseas links and activity

9. Staff

- Benchmark: 9.1 Strategic human resource planning
- Benchmark: 9.2 Management of workforce
- Benchmark: 9.3 Workforce diversity
- Benchmark: 9.4 Career development/staff effectiveness

