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Remote work culture in IT companies

An innovative way of working and living

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<p>The purpose of this thesis is to study how remote working companies operate and analyse what kind of positive and negative aspects the method has. This study also discusses why remote working is a fast-growing trend especially in IT companies.</p> <p>This project was carried out while working as UI/UX designer for five months in an IT remote company called MarsBased in Barcelona, Spain. The observations of this thesis are partly based on the author's own experiences during the internship.</p> <p>The result of this project is an analysis on why MarsBased can be said to be one of the best remote working companies in Spain. The results include two designs that the author of this study created while remote working for the company as well as the pros and cons of remote work. Based on this study it can be concluded the big impact that remote working has created in the professional and personal life of the employees in an IT company.</p> <p>In future studies it would be interesting to analyse how remote working as a method affects employees' personal and professional life in the long term. New techniques such as virtual reality enable remote working quite effectively. Most companies that have experimented with remote working will continue doing so.</p>	
Keywords	Remote work, IT companies, working process, MarsBased, teleworking, work-life balance, design

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1 Introduction

This study introduces an alternative and innovative working method called remote work. Remote work has gained popularity especially in modern IT companies. I have worked as a UI/UX Designer for three years in different IT companies both in Finland and in Spain. This study is based on my experiences while working five months in a Spanish IT remote consultancy called MarsBased.

The objective of this thesis is to study how remote work companies operate and what the positive and negative aspects of this method are when compared with conventional companies.

Remote work is an interesting and innovative method which can make a change in people's lives. This study discusses whether remote work is only one method of organizing work or could it become a life-style that can improve both productivity and balance in working life in general. Is teleworking an option for every business and how can companies adapt to it? And finally, is it worth it?

2 Theoretical background

2.1 Jobs throughout the history

Work has evolved over the past centuries, getting social benefits, workers' rights and better life balance. However, this has been only possible by critical discoveries in history which have done a change in the work culture and improve human lives.

If Guttenberg and his invention of the printing machine marked off a before and after in the work processes, the appearance of the computers and the internet opened up a new stage that changed the way of understanding the relationship of the worker with its surroundings.

Starting from the nonexistence of web programmer for obvious reasons in the last century, this reflexion will be focus on the work processes of a freelance graphic designer at the 90'. At that time, it was necessary to rent a permanent work space, or office where have the company name and receive customers. They had to send for printing corporate stationery (letterheads, envelopes and cards) and hire a secretary to receive calls and answer the door.

This person would also perform many business functions to show his/her services that are now made by exposing the web itself with a good treatment of its Search Engine Optimization (SEO). It was essential to have a fax and printer, plus a number of digital media to send work as Compact Disks (CDs) or diskettes. The role of having a courier company was also indisputable: the sketches recorded on CDs or printed models, as there was no digital printing, were sent to the client and appropriate changes would be made. Flexibility in working hours was unimaginable; if a customer called to the phone (fixed, of course) and was not attended, the designer could miss the work.

However everything changed with the internet. [1, 5] New IT companies offering services based on the internet emerged leaving behind those companies who were not adapting to the internet. [2]

International companies started to demand globalization because they had to be visible to the world or they would lose against their competitors. As a consequence, IT companies emerged with a huge demand.

An Information Technology (IT) company is a business responsible for developing and maintaining computer services. These first IT companies in the early twenty-first century developed software and websites for any kind of business and most of these websites were static and only informative. [1, 34]

The web 2.0 was introduced in the last decade creating platforms that actually were replacing conventional markets. A good example of this is Etsy¹, a platform where manufacturers can sell their products globally without a physical shop. Etsy is offering a chance to any manufacturer to connect with any client around the world and without paying a rent or store clerk. [3]

Nonetheless it is not only about reducing costs, internet changed the way how marketing works and it allowed to small or start-up companies to compete with giant companies. Providers and clients were finally completely connected in a higher level that they were before with technologies such as telephone or faxes.

In other words, internet led to the development of a work culture which started with technology limitations in the 70's and can today be properly performed: remote work. [4]

2.2 Defining remote work

Remote work, also known as telecommuting or teleworking, means that a full company or a part of a company builds a product or offers a service online without an actual office. [5, 3]

Remote work is a very flexible concept since remote workers in a company can be the whole company, a part of a company or an entrepreneur who runs his or her own company. Workers do not need to work at home, they can work from a co-working place or

¹ <https://www.etsy.com/>

just travel around the world if they wish. Workers do not need to be working from 9am to 5pm, they decide when they work and how they distribute their hours, considering fixed appointments or meetings.

This method is more extended in IT and service companies since they have the technology to develop their work which other companies lack. For example, a factory cannot work remotely because their work takes place in a factory, and they do not have their tools available online.

2.3 Remote working companies

There are many companies which think that remote work is not for them, it does not fit their work style and it would be too complicated to change to a new way of work. However, for example 30 % of workers in USA work remotely. [6]

According to several studies, the fields that work the best with remote work culture are software, recruiting, marketing, legal, insurance, government, finance, film production, design, customer service, consulting, advertising and accounting. [5, 79]

However, remote work does not mean that employees work from another city or another country. It means that it is not necessary to stay from 9am to 6pm in the office every day. There are companies where the whole company is working in remote. The employees just meet every two months to interact socially and have a good time as is customary in MarsBased, the company where I work. There are other big companies where only part of the team is working in remote. For example, over 80 % of regular workers of Intel or Cisco work remotely [7]. Freelancers also work remotely quite often because it does not matter where the provider or the client is.

Not all big IT companies have found remote work profitable. For example, Yahoo! announced that they were taking down their teleworking project since it did not success in 2013. Their CEO, Marissa Mayer, said "people are more productive when they're alone, but they're more collaborative and innovative when they're together. Some of the best ideas come from pulling two different ideas together." [8]

2.4 Conventional companies VS. remote companies

2.4.1 Offices

According to a survey in 2015, more than three out of four workers who work remotely have reported more productivity than those who work at offices. [9]

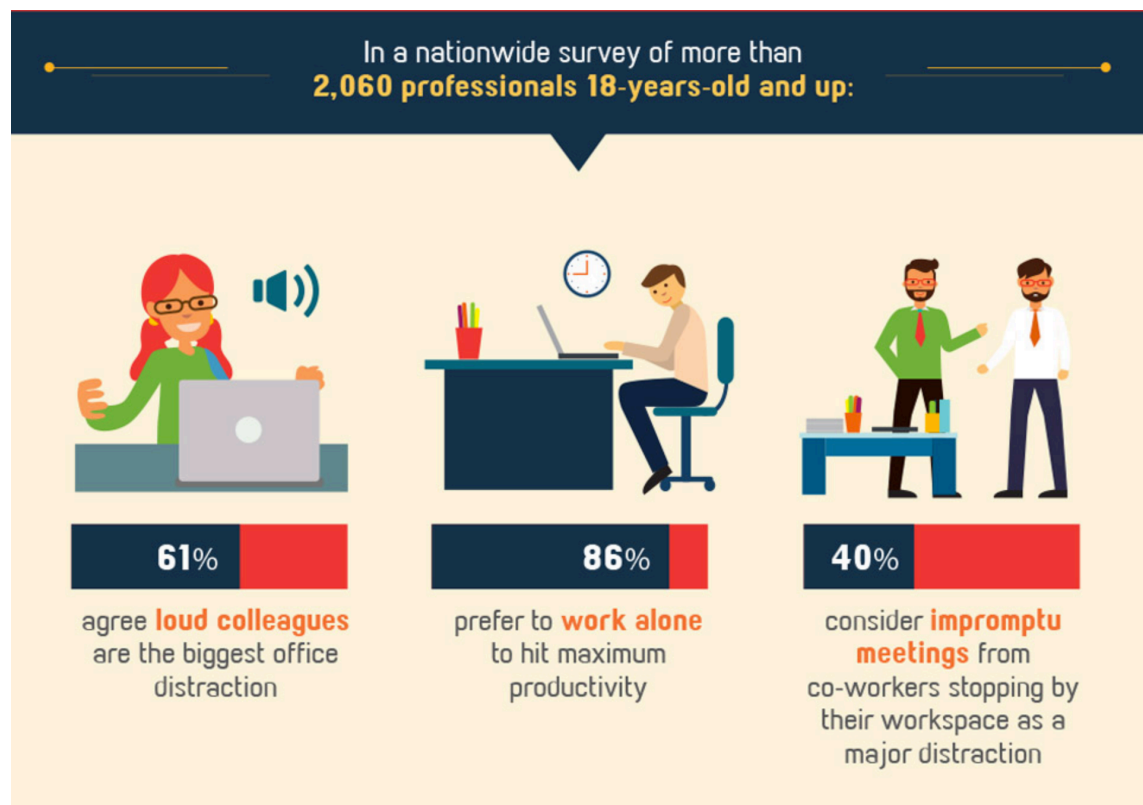


Figure 1. Graphic of a national survey done by SurePayroll in 2016 [10].

Figure 1 indicates a nationwide survey where more than 2,000 professionals were asked where they get their work done when they need to reach a higher productivity. According to a SureRayroll's study in 2016, 86% of the respondents said that only when working alone do they reach high productivity. [10] Also, 61% of these workers think that their loud colleagues are the biggest office distraction and 40% consider impromptu meetings from other colleagues stopping by in their workspace disturbing.

The research also announce that many IT workers get their job done when they are not in the office, such as early in the morning or late in the evening when nobody is around. Co-workers are distractions and reduce productivity. When people work alone they can

set up their own productive zone. Of course there will always be other distractions but they will be things people can control, so called passive distractions. [5, 7-8]

A big argument for IT companies or start-ups to have an office is that they think they need to position their business in tech hubs such as Silicon Valley. This is not true, however. For example, a start-up company called Basecamp has managed to create successful projects remotely by using the Ruby programming language. [11]

Having offices in tech hubs makes it feel that the company is in the wave and can bring new projects but it also has the negative side that workers tend to compare their companies and move to other companies that seems more promising. [5, 25] Every company is different and in some cases having an office is really a requirement for the company. However, in many cases not all their workers need to stay in the office.

Another reason for conventional companies to not become a remote company is that they already have paid for expensive offices and they cannot just leave them. [5, 77]

2.4.2 Economical aspect

Office's rentals are expensive; it is one of the most expensive cost in a company after employees' salaries. In table 1 are shown some of the average yearly cost spent in an office of 100m2 in different cities of USA.

Location	Average yearly cost spent in an office of 100m2
New York	\$74,000
San Francisco	\$65,160
Los Angeles	\$33,510
Chicago	\$35,000
Miami	\$33,150

Table 1. Average yearly cost spent in an office of 100m2 per location. [12]

Remote companies do not have offices so they have the possibility of hiring an extra employee with the money they save from office payments.

Remote companies not only save costs from offices, but also from commuting. HP's Telework Calculator² shows \$ 9,364 yearly savings when an employee does not have to commute 16 km daily to go to work.

Reducing commuting is also a huge benefit for the environment. The previous case also shows that 2,332 lbs (1,058 kg) of Greenhouse Gas (CO₂) is reduced every year per each remote worker who does not have to commute to their job. [5, 31]

2.4.3 Data security

Security has been a big concern for companies for many years but a new study shows that companies which are using cloud computing have better IT security.

As seen from the data of a report made by the consulting firm Deloitte, which analysed 500 companies with annual revenues of between 100 and 1,000 million dollars, the most relevant fact in determining the adoption of cloud services section is the integration of existing applications and infrastructure (25 percent). Security is the second reason for using cloud services with a 24 percent. The results of this edition also reveal that companies are more concerned with training their employees on information security, and it points out that there has been an increase in the use of data encryption. [13]

Cloud computing and encryption are services available for conventional and remote companies but is it enough for remote companies? Some remote companies with critical information such as banks have been reporting using VPNs, another very useful tool for teleworking which improves security. It encrypts the communications and makes it possible to work with important information without the fear that their data could be stolen by others.

VPN stands for Virtual Private Network and allows to connect a computer to a more secure and controlled networked via the internet. To do this, the connection will also limit employees' access to encrypted information. Also, different users have different privileges. To create a VPN connection a software and a server are needed. The software is installed on the client's computer and the server provides access to the network. [5, 91]

² <http://tools.govloop.com/telework-calculator.php>

2.4.4 Appearance and Meetings

For some companies, appearance is a very big part of their success. For example, law firms or advertising companies have to sell themselves to the clients. But does an IT company need all that? This would mean that having an office is the same as having a big theatre where managers have meetings with clients and workers are just needed in the scene as extras. [5, 35]

Some years ago, the only way of meeting with a client was meeting him or her in person in the office. Everything had to look professional, because of course, professionalism was shown in the way the office was looking. Nowadays, professionalism is shown by what the services the company offers. Social networking and messaging services have transformed communication, and this is affecting both to the consumer market and to the business world. A business solution that has been very well received in organizations is video calling. If companies put themselves in the shoes of a client, they understand that it is better to give advice through a video call than a normal call.

In June of 2016, Microsoft launched their latest product: Skype Meetings. This new service allows to keep audio conferencing and HD video, individual or group and includes tools to work collaboratively such as screen sharing and content during the videoconference. [14] Skype also has a feature that allows users to share what they are seeing on their screen with their clients. But Skype is not the only one, many other services as Google Hangout or Appear.com confirm that video meetings are producing a big impact in the way providers and clients communicate nowadays. [15] Videoconferences also allow professionals who are absent to attend meetings virtually. [5, 59]

Technology has improved the way meetings are organized but this is not necessarily always a good thing. Sometimes too many meetings are arranged causing time losses and interruptions which fragment the daily life of the company.

In markets like the US, 11 million meetings take place every day, and most professionals are involved in a total of 61.8 million meetings per month, representing a loss of 31 hours per month in unproductive committees, which it is equivalent to four full working days. [16]

Peter Bregman, CEO of Bregman Partners Inc., indicates that 95% of workers surveyed are blocked by three main factors that cause loss of time at work: unnecessary meetings, completely dispensable emails and eternal Power Points. [17]

As everything in this life, meetings can be toxic if companies abuse their use. In the book 'Rework' by 37signals some of the most important reasons why meeting can be harmful are presented:

- Meetings usually arrive when a concept is not sufficiently clear.
- The goal is to avoid meetings. Every minute that a meeting is avoided is a minute to dedicate to do the real work.
- Almost always they deal with words and abstract concepts, not about real things.
- They transmit a tiny amount of information per minute.
- They lose their way more easily than a taxi driver in Madrid carrying a tourist from the airport.
- They require meticulous preparation for which many people do not have time.
- They often have imprecise agendas that almost nobody knows what will really matter.
- Meetings procreate. A meeting is followed by another meeting that follows another meeting.
- They often have day orders so vague that no one is entirely sure what they're trying.
- They require rigorous preparation that is rarely carried out.
- Too many meetings can reduce motivation since it increases the time dedicated for the project.

[5, 108] [18]

2.4.5 Communication

Remote workers are forced to have a better communication and trust with their clients than conventional companies have. Video calls were mentioned in the previous section but it is important to communicate how the project goes to make sure everyone feels that it is also their project. This means sharing the project's schedule, asking them for

feedback, and showing them work in progress. If a client feels as part of the project, their motivation will increase. [5, 128]

The other way of communication inside a company comes from co-workers and this becomes quite easy when all of them are working in an office together. Today almost no one works alone. Companies are formed by large teams working together every day. Therefore, the ability to work in a team and team management are among the skills demanded by companies.

There are many online tools that can be used to get all the messages, emails, and notes from our co-workers but many people do not know how to prioritize their task and everything seems to be “asap” tagged. This is annoying and it often happens in conventional companies where co-workers are asking other employees for help and stopping their work in an intrusive way. [5, 71]

Remote workers have the flexibility to work from everywhere they want, but it can reduce productivity if part of a team is in different parts of the world with different time-zones. It is just difficult for many people to organize their meetings in a way that all of them can be present. [5, 85]

Another problem for remote companies is that many people think they cannot see what the other co-worker is doing at the same time. It is not so much that they do not trust their employees but rather not being able to show what they are doing. Luckily there are many programs such as Skype, WebEx, GoToMeeting, Join.Me. [5, 89] that allow to share computer screens with other people.

Efficient communication between co-workers during all hours is important but working 8 hours per day is utopian thinking. It is impossible to concentrate 8 hours every day. In conventional companies, workers usually go for a coffee and socialize in the office. This is not possible in remote companies, although it can be compensated with some technical tools such as a non-work channel in an instant messaging app where the whole company can participate. [5, 95]

Communication is important when organizing projects but also when there is a need to follow the flow of the company. When the whole company works in remote, it is quite easy to miss the flow and how the projects are going in general. Remote companies

have to make sure that there is a reliable system of communication where everyone knows what all the others are doing. [5, 97] Also in remote companies it is important to be disciplined, organized and polite, and to know how to empathize with clients and other co-workers. [5, 145]

One misunderstanding about remote working is that that teams are always far away from one another. Different companies have opted for different amounts of remote work ranging from a few hours to being always away from the office. It is important to meet from time to time not only for work but to interact socially. On the other hand, the employer should ensure that all the employees are feeling well both mentally and physically. No one should feel left alone. [5, 179]

2.4.6 Social life and work-life balance

Being a teleworker and working from home brings many benefits, including peace, tranquillity and flexibility. But it is also true that the vast majority of professionals are facing one of its greatest challenges: to know how to overcome isolation. Remote work often involves working from a makeshift office at home, and not having much interaction with others. However, this can also be interpreted differently and perceived as a way of improving one's work-life balance. [5, 45]

Work-life balance is necessary psychologically. In conventional companies, being in a high position and having a work-life balance with your family can be difficult. [19] Working from home can help to improve the relationship with family, friends and neighbours. It improves the work-life balance that many workers in conventional companies miss.

Although the female employment rate in Spain has seen a "steady increase", it is women "who most assume the family care of children and dependent family members", as recorded by the report 'Reconciling work and family life in Spain' published by the NGO Save the Children. According to data collected in 2014 by the Women's Institute under the Ministry of Health, Social Services and Equality, from 31,435 exceedances after having babies that year, a total of 29,554 were ordered by women and only 1,881 were requested by men.

Currently, maternity leave in Spain is 16 weeks (four months) and the paternity leave is only 15 days. "The protection during pregnancy and breastfeeding is justified for health

reasons, but the reconciliation affects both women and men, and the needs and rights of children must be taken into account" denounces the NGO, which calls for expanding maternity leave to 24 weeks. Maternity leave of Spain is among the lowest in Europe and it is far from the average of the EU. Behind Spain are Malta and Germany (14 weeks), Belgium and Slovenia (15 weeks). [20] Working remotely could fix all these life balance problems that almost every country is facing. [5, 113]

Companies in Silicon Valley are offering many facilities for employees from free restaurants to free laundries in their offices. Why do laundry at home when it can be brought to the office and someone else will do it for free? It is all about making employees happier which will increase productivity. If conventional companies are trying to attract their employees to the office with innovation and good services, remote companies should also add a plus to their employees into their way of working. [5, 148]

Motivation is one of the main engines in every work and it is more important in remote companies where the lack of motivation leads to less productivity and social problems with the rest of the remote co-workers. [5, 215]

2.4.7 Productivity

In 2011, researchers from the Umea University in Sweden published an interesting study: 40 per cent of couples where one of them has to travel over 45 minutes to work are more likely to divorce. [21] First the researchers tested the most obvious point: people do not like going to work, they find it unpleasant and stressful. This is caused by the commuting itself. Most of the people living in big cities have to endure traffic jams and contamination. Also, the time spent in this commuting is quite decisive since workers cut time from other activities and it generates stress, obesity, loneliness and insomnia. All these symptoms have a great effect on productivity. [21] [5, 11]

Some of the thoughts about why some IT companies have failure or remove their remote working teams as Yahoo did in 2013 are because employees could reduce their productivity since they did not have a direct supervision as they had when they were working in their offices. [22]

As 37signals co-founders advice in their book "Remote", it is most likely than the problem comes from overwork than underwork. This is caused for the lack of limitation of

hours when the same place is used for working and for leisure, the case of remote workers who work from their home. When people work in an office with fixed timetables and they come back home, they do not work anymore and they disconnect from their jobs. This can be a problem for remote workers. [5, 197]

2.4.8 Labour flexibility

Spanish legislation establishes a legal maximum working week not exceeding 40 hours per week of actual work average calculated annually. [23]

But it does not say that all workers have to work from 9am to 6pm with an hour break for lunch. This can be the most common working schedule for conventional companies where they require all their employees to work in the same place at the same time. But it does not mean remote workers have to do the same.

The biggest benefit from teleworking is the labour flexibility. Remote workers do not need to commute to their jobs and they do not need to work in the same hours as conventional workers. There are people who feel more productive working from really early in the morning and they finish in the afternoon. The most important thing is to do the job and not when or where to do it.

There is a new technique that many conventional and remote companies are applying which is called "working by objectives". The importance of working by objectives is aligned with the need to know what that person wants to achieve. Indeed, in all jobs knowing what you are working on is the key to achieve the tasks entrusted. Working without goals would be almost like working without a defined course. Thus, the main reason for challenging this working method is to achieve the targets. [24]

Signing in every day and arriving to the office on time is useless if the worker is not one hundred percent focused in his/her work and is distracted by other things. In other words, being physically in the position does not increase productivity, efficiency and quality of work has nothing to do with this.

In 2013 an American programmer wanted a Chinese company to undertake some of his activities, while he used the time in the office on other tasks more entertaining as watching videos of kittens. The programmer paid its Chinese "employees" 1/5 of his

salary and, while they did his work which was always completed on time, he was just arriving on time to the office and spending the day there doing nothing. This story triggered a debate on which is more important, to work certain hours a day or achieve the objectives. [25]

One of the supporters of eradicating the rigid working hours for the benefit of workers is Ilya Pozin, founder of Open Me and regular columnist for publications such as Forbes Inc. In an article entitled 'Why employees should not have hours', he argues that "nothing kills more productivity than an environment in which people feel compelled to work." For this entrepreneur, "give them the freedom to come and go can be the solution to increase productivity and performance." Pozin firmly believes that productivity is not linked to the presence of the employee in the office, because sitting at the desk or attending a meeting are not synonymous to properly undertaking the work. He argues that allowing workers to determine the time that they want to be working means that workers will not run away when their working day ends. As a consequence, professionals will be organized in a manner based on work and not in time. [26] When work is organized around objectives, it is important that the objectives are both achievable and challenging. Otherwise the workers might not be motivated. [5, 17]

The main reasons why people change or quit their jobs is because they move to another city or they need a special schedule, or they decide they want to travel the world. Remote companies offer the flexibility to relocate wherever in the world the employee wants. He or she can still continue working with the same company. This flexibility can be applied to schedules as well. Employees can work as flexibly as they want as long as the objectives are met. [5, 207]

This is a really good deal for the denominated "Digital nomads", who decide to travel the world without quitting their jobs, just working remotely with a company or freelancers. A digital nomad is a person who takes advantage of the freedom that the technology gives to live and work from anywhere in the world. They are people who travel very light (backpack and laptop) and they show that it is possible to work and travel at the same time. [5, 219]

3 Remote working methods in MarsBased

MarsBased³ is a development consultancy from Barcelona offering end-to-end web and mobile apps based on Ruby on Rails, AngularJS and Ionic framework founded in 2014. I started to work with them in June 2016 as UI/UX Designer and Front-end Developer. We are a remote company and all the employees, a total of 9 plus occasional freelancers, work in different parts of Europe. Most of us work from Catalonia, Spain, but we have a co-worker from Murcia, Spain, and I usually work from Brussels or Zaragoza in Spain.

3.1 Communication and organization

Communication and organization are the two most important and difficult parts in a remote working company. If these are not taken care of, it is impossible for a company to manage working together when they do not have a physical workspace in common. As already mentioned in the previous chapter, there are two ways of communication: communication with clients and communication with co-workers.

We have clients from all over the world, from Spanish and German start-ups to one of the largest oil companies in the world based in Abu Dhabi. In every project that we have, there is a Project Manager who is taking care of the main communication with the client and manage the work that the rest of the team is going to do.

When an offer is sent to the client, they know already that they are going to work with a remote company and almost all of their meetings are going to be online. It is important that they have this fact in mind since it is a different communication than with a conventional company and they have to make an effort of trust.

In previous chapters a question was raised: how does a remote company organize meetings or keep the conversation with clients if they do not have an office? In the first place, companies do not really need to rent an office for years if they are going to only use it for a couple of meetings every month. From this need of a flexible physical place for meetings, “co-working” places have appeared in recent years.

³ <https://marsbased.com/>

Co-working places are work spaces where many professionals rent their space adapted to their needs. MarsBased has a co-working rented in Barcelona that we pay for the time that we use it. Commonly we always meet first with the client and have a face-to-face meeting in this co-working place, because we think that a first physical connection is important, but it always depends on the case. In June of this year we got a client from Abu Dhabi and one of the team members went all the way there to meet the client in person. We have other clients who live in Germany who do not really want to meet in person and Skype works for them. It depends on the client but we try to be as 'human' as possible, even if they never meet us further than from a screen.

The follow-up communication does not need to be in person, we normally manage with video call programs such as Skype or Appear and every week we send a weekly report about what has been done in the previous week.

For these weekly reports we use Basecamp⁴ software, which is developed from 37 signals and it is helping us to manage emails with clients, questions and answers that they might have. Every Monday, we send a report about the progress in the previous week and things that we want to highlight.

⁴ <https://basecamp.com/>

The screenshot shows a Basecamp project board for a project named "Project - [redacted] Project's name". At the top, there are navigation tabs: "Latest activity", "Basecamps", "Pings", "Hey! Campfires", and "Reports". A search bar "Find..." is on the right. Below the navigation is a row of project members' avatars, with a red arrow pointing to them labeled "Project's members".

The main content area is divided into two columns: "Message Board" and "Docs & Files". The "Message Board" shows a list of message threads with their titles and counts, such as "CC en mailer de Campaigns. - Una" (2), "La página de redención de cupones UV a veces" (26), "[UV Vouchers] wktv_code - Hola Oriol, Probando las" (7), and "Posible nuevo proyecto - Hola Xavier Oriol Tenemos" (2). A red arrow points to this list labeled "Message threads". The "Docs & Files" column shows a grid of documents and folders, including "API", "Campaigns", "Development workflow & deploys", and "Contacts". A red arrow points to this section labeled "Project's documents and files".

Below the message board, there is a section for "Friday, September 30". A red arrow points to the date header labeled "Date". The messages in this section include a comment from a client at 5:06pm: "commented on La página de redención de cupones UV a veces se queda atascada" with the text "Ay, merci. Con esto ya podemos tirar adelante." A red arrow points to this message labeled "Client's message". Another comment from MarsBased at 4:41pm: "commented on La página de redención de cupones UV a veces se queda atascada" with the text "Hola [redacted] Faltaban unas keys de traducción en el yml, las he añadido en de.yml i fr.yml que también faltaban ahí, las he añadido en inglés hay que traducir los literales. Si quieres que ponga yo los textos pásame las traducciones y las pongo. He actualizado la PR con este cambio. Saludo y di...". A red arrow points to this message labeled "MarsBased worker's message".

Below the Friday section, there is a section for "Thursday, September 29". A red arrow points to the date header labeled "Date". A comment from MarsBased at 11:11am: "commented on La página de redención de cupones UV a veces se queda atascada" with the text "Hola [redacted] Ya hemos visto que funciona, pero al construir alemania (baja master y prueba construir alemania) me tira error: == Request:". A red arrow points to the text "La página de redención de cupones UV a veces se queda atascada" labeled "Topic of the conversation".

At the bottom of the board, there is a "Help" button on the left and a "Settings" gear icon on the right. A "Following this Basecamp" button is also visible at the top right.

Figure 2. Screenshot of a real Basecamp board with a client from MarsBased, explained with red comments.

In figure 2, it is shown how a project is managed with Basecamp, all the emails and files that are sent from the client to MarsBased or vice versa are displayed in this board. With this tool we can concentrate all the information with a client in one place. When the client has sent us the information about the project, we use Trello to organize internally the tasks that we are going to do.

Other communication is internal communication between co-workers in MarsBased. For this function our main tools are Trello, Slack and ScreenHero.

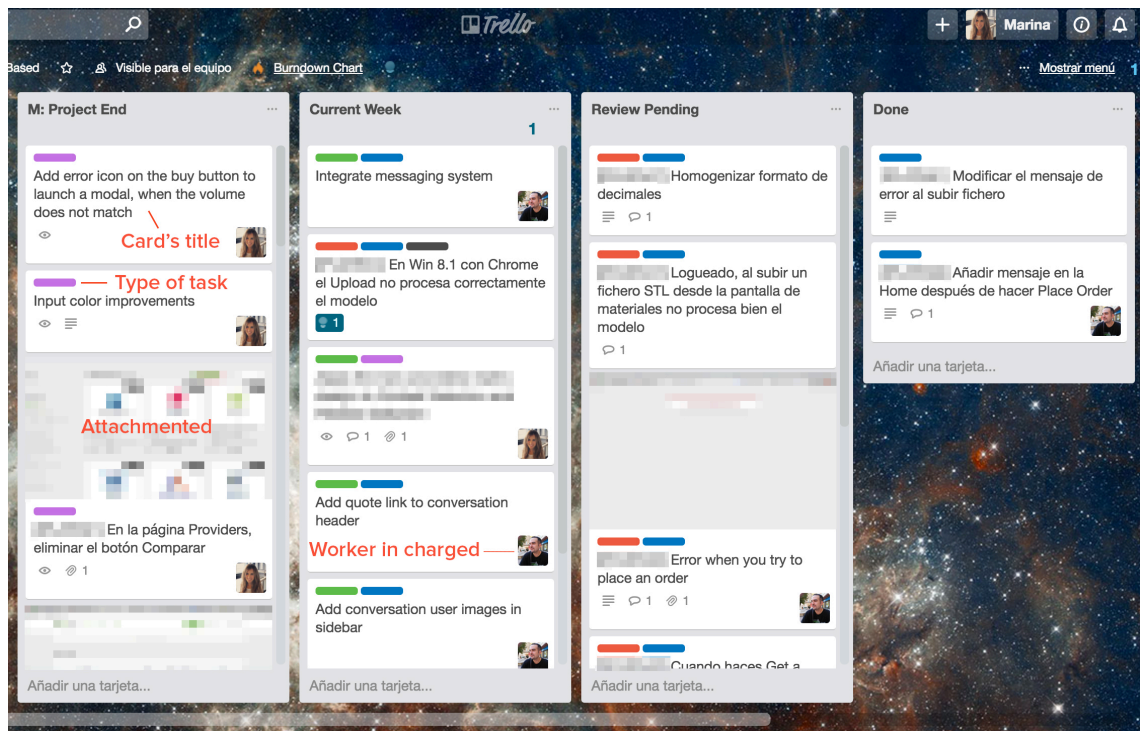


Figure 3. Trello board for a MarsBased's project, explained with red comments.

Figure 3 shows a Trello⁵ board page for one of our projects. Trello is a webpage to manage project orderly with a tasks list implementation. It is based on the Kanban board tool which follows the idea of positioning and moving cards which represents tasks in different columns depending on their process status inside a project. [27]

Every project has a different Trello board and we follow always the same organization rule: Every task has a colour, title, description and person in charge as seen in the Figure 3. The colour of the task indicates what kind of task it is, it can be: Development, Design, Front-end, bug, definition, deploy or awaiting external response. In Trello users can put many different colours for the same card. The title and description of the task explains which is the problem or which is the objective of the task. The person in charge is the worker who is taking care of that card.

There are four main columns, the first one starting from the left is the project itself divided in the different small tasks meeting every requirement from the offer signed by the client and MarsBased previously. The second one is the "Current week" column, where the tasks from the first column are moved if they are going to be completed by

⁵ <https://trello.com/>

the end of the week. The project manager of each project is responsible for organizing this work and assigns hours to the project. The third column is the “Review Pending”, where the completed tasks from the Current Week are moved to. This is a way of reviewing code and designs to be sure that they are meeting the specifications and that there are no mistakes. Normally in a big project there are a couple of front-end developers and a couple of back-end developers who can code review between each other.

Once that the Review Pending tasks have passed the filter from that column, they are merged in the master branch of the project and they are moved to the column called “Done”. In every project, first we do the front-end tasks and then the back-end programmers move these tasks from the done column to the current week. It also happens that some clients demand a second or third offer with more or new features for their projects. This new offer is charged separately and the tasks from it would be placed in a new column in the left part of the Trello board.

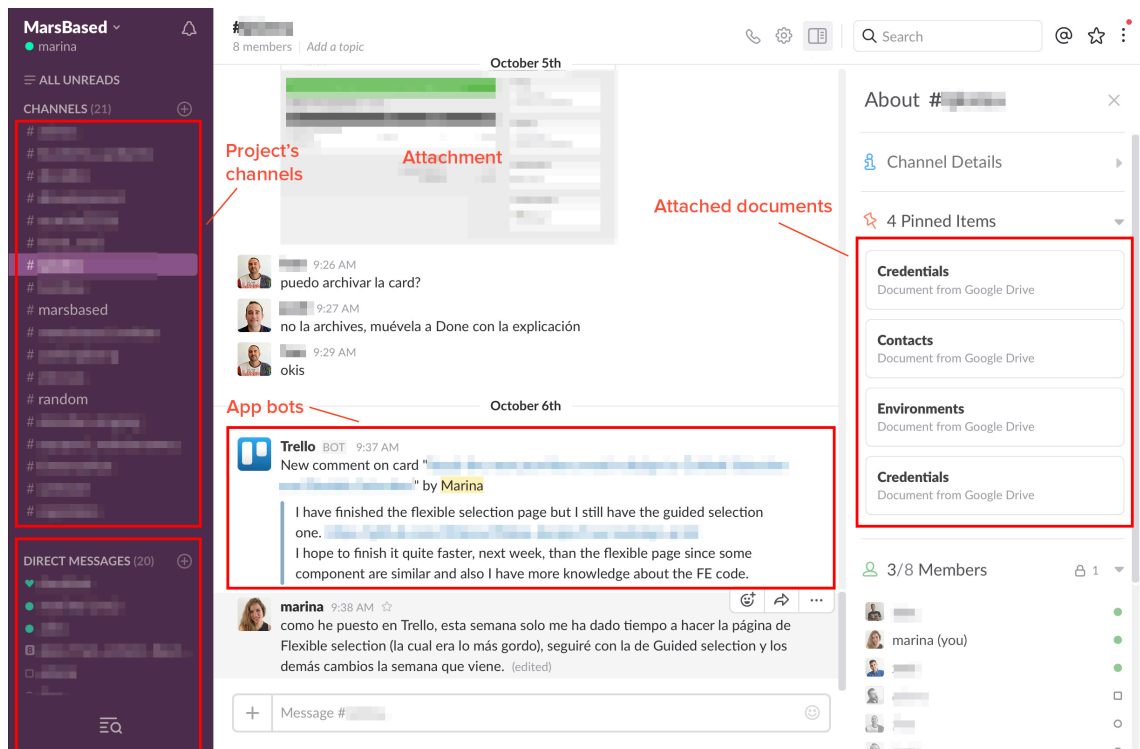


Figure 4. Screenshot from a project’s channel in the MarsBased’s Slack with red comments.

In the figure 4, a Slack⁶ channel is shown. In this webpage is where we keep the direct messaging and the main communication internally. The way we organize MarsBased's Slack is: We have a channel for each project where we write questions and comments about the project. We also have Slack's bots connected to each channel to notify if there has been a comment in Trello.

As shown in figure 4, Slack allows to attach project documents to the channel of the project, just the same way as they are in BaseCamp. We write all the necessary documents as credentials to access Github.

Aside from the project channels, we also have two channels called "MarsBased" and "Random" where all the company members are on. In MarsBased's channel we talk about company matters but "Random" channel is really informal with no work-related topics. It is our way to break the monotony of work and get together with interesting and funny articles, stories, music etc. This kind of channel is important for us since in convectional companies people have a social break and go for lunch or coffee, but in a remote working company that is not possible.

Slack does not only offer organized instant messaging but also audio calls, when we do meetings about projects we use Slack calls or Appear⁷ which are instant audio and video call programs that allow many people at the same time for free.

If workers in conventional companies have problems or want to discuss something that they are working in their own computer, it is so easy for them to just ask someone in the office for help and solve the issue accessing to the other worker's computer. In remote companies this is not possible to do, since we are not physically in an office with our co-workers. But there are programs that we use to solve this problem.

Screenhero⁸ is a software that offers to get inside other person's computer, working and talking at the same time with the computer's owner as a result of an incorporated audio call. With this program we can share our screens in real time at the same time that we interact and discuss about a project, bug or question.

⁶ <https://slack.com/>

⁷ <https://appear.in/>

⁸ <https://screenhero.com/>

Finally, the last communication and organization process that we do in MarsBased is a personal weekly report every Friday about what have each of us done that week.

In this report, that we send in our internal board in Basecamp, we write about the small and big tasks that we have done through the week in the project that we work in. Afterwards we write a section of “highlights” where each of us talk about whatever we want to highlight from the week to let others know. It can be from a good programming trick that someone has found to how good someone feels because one personal or professional project has been completed. The aim of this report is not to check the productivity of the workers in the company but the effort of them to keep tracking their own time and feeling productive, which increase motivation.

3.2 Information always available (Github, G Suite)

Besides communication, it is also important to have a good ecosystem where workers can access to all the information but also make sure that the company’s privacy remains safe. For this, we use Github, Google Drive and other apps from G Suite.

Github⁹ is a website that offers a distributed version control system and source code management plus extra features like bug tracking, features requests, wiki and backups of projects’ code with the objective of co-working in the same code with other programmers, minimize the effects of mistake and organize the code’s changes.

⁹ <https://github.com/>

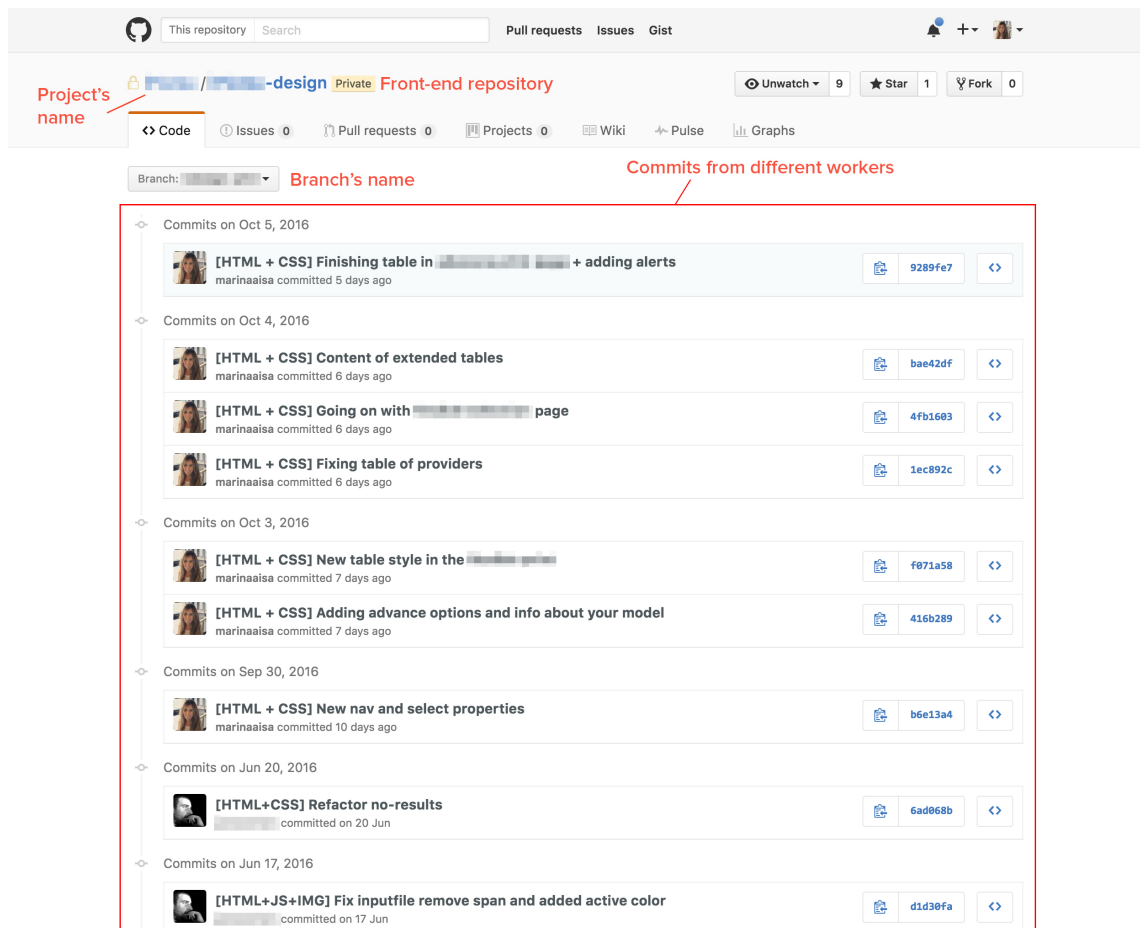


Figure 5. Screenshot from a project's GitHub with red comments.

Figure 5 shows how a MarsBased's Github repository looks like. In every project we have two different repositories, the first one is front-end and the second one is back-end. Because I work as a UI/UX designer and Front-end developer, I only work in the front-end repository. The reason we have different repositories is because it makes working simpler and safer since the front-end developers do not touch anything from back-end code and vice versa.

Github has branches which are different versions of the same project with different changes. The aim of the branches is to keep the main project safe from changes that can break the code. Only when the change is approved in a different branch it can be merged to the "master" branch, which is the main project. Every change in a branch appears as a "commit", as shown in figure 5, and different people can make these "commits" at the same time. As a consequence, many people can work in the same project without problems.

While we save the code in GitHub, we save everything else in Google Drive¹⁰. Google Drive is a cloud-platform created by Google that allows to keep and share any kind of files in their cloud. It is one of the tools available inside their G Suite package. Users can access from the website but also from a synchronized folder in each computer. This means that every change done in each computer will be synchronized automatically into Google Drive.

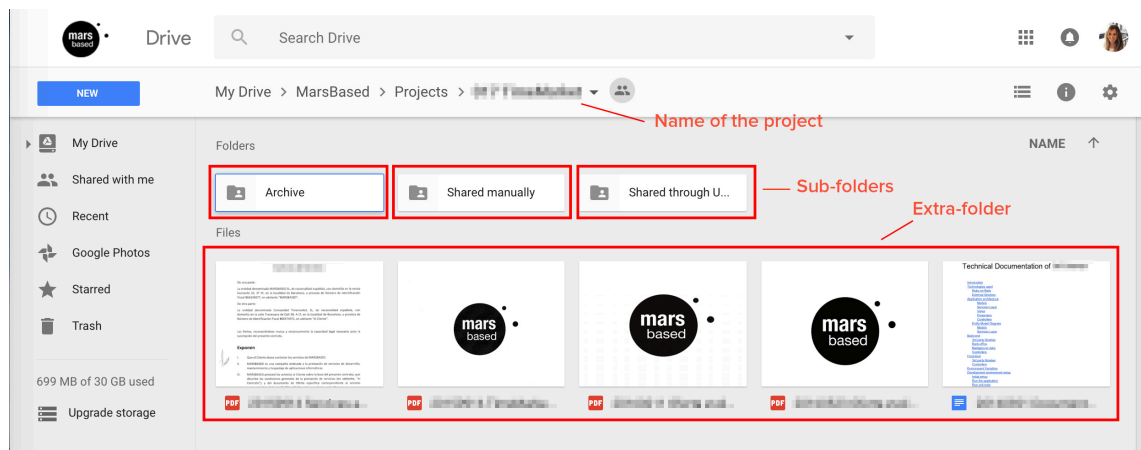


Figure 6. Screenshot of a MarsBased project's folder in the company's internal Google Drive.

The way that we organize the information in MarsBased's Google Drive is simple. As shown in figure 6, every project has a folder in the cloud and every project's folder has three different folders. The first one is the "Archive" folder where only the Mars-Based's can access and where we keep outdated documents as old finished offers for example.

The second one is called "Shared manually", where information is only accessible if the user is part of the MarsBased's team or someone adds him/her to that folder. Here is where we keep important documents as credentials to access the project. In the third folder called "Shared though URL", where information is accessible if the URL link is shared with a client, we keep files that do not contain sensitive information but which we need to review with clients such as design files.

Nevertheless, Google Drive is only a tool from the G Suite¹¹ apps that we use. G Suite is a set of 12 applications made by Google for business and companies. In MarsBased

¹⁰ <https://drive.google.com>

¹¹ <https://gsuite.google.com>

we use Gmail, Drive, Calendar, Docs, Sheets and Slides. We do not use other apps as Hangout, which it is another video call app, because we use Appear or Slack talks instead. G Suite's fee at the moment is only 5 euros/worker/month. [28]

The reason why we think that G Suite is important its integration with all the Google services and third parties, and its collaborative and multi-user performance. For example, all the text documents that we save in Google Drive are made in Google Docs where all the MarsBased's workers can edit and modify them at the same time from the browser using this G Suite app. Another example is the Calendar, which is shared to all the workers to know important dates in the company. In other words, it is a good environment to share and edit any kind of file into a company, in real time and between many users.

3.3 Martian Day and Equipment for home

As it has been mentioned in previous chapters, being a remote working company does not mean that all the members of the company work are always working apart. In MarsBased we have found a way to have physical contact from time to time and improve the team atmosphere creating "Martian Days".

"Martian Days" are different working days where we meet in a co-working facility in Barcelona. We are nine people at the moment, and we do interesting presentations about topics that we like, talk about company's related matters and enjoy the company of our co-workers. We do it every two months and the company covers the expenses of those who live outside Barcelona.

In remote working companies our work spaces are our houses, co-workings or even a beach in Indonesia as one of MarsBased's workers had for 2 weeks this summer. It does not matter for us where or when a worker is working, we only care about the accomplishment of the working hours and having a good equipment wherever the employee works to improve productivity. For that reason, MarsBased finances work-related equipment as MacBook, ergonomic chairs and desks or co-working place monthly payment. It depends on what the worker's needs are.

3.4 Economical aspect

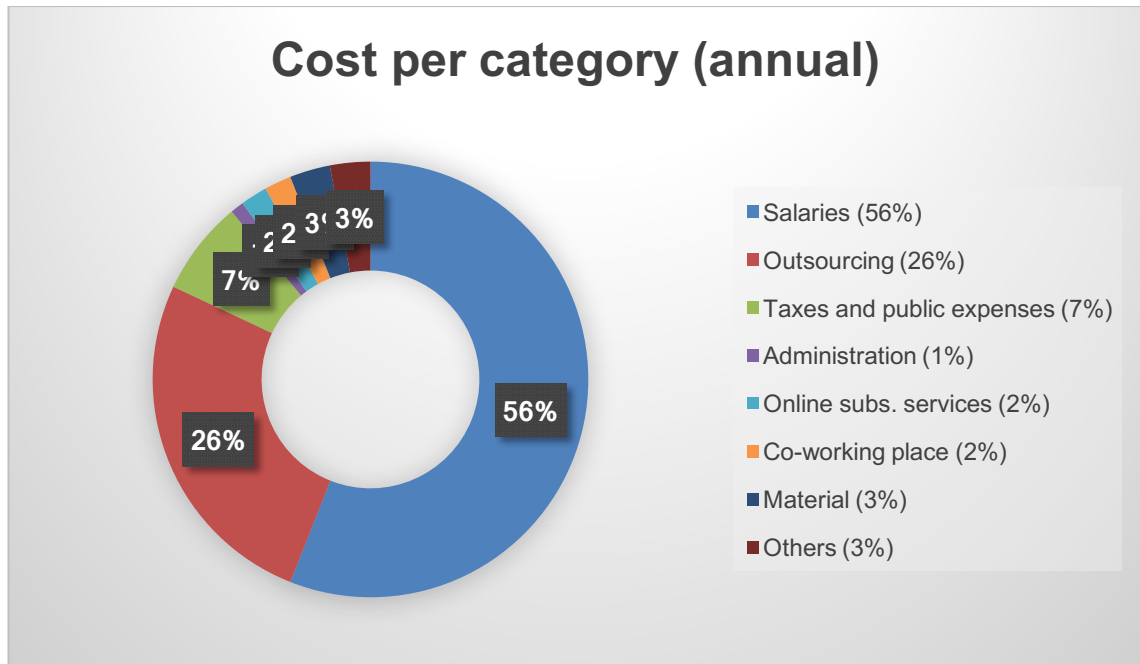


Figure 7. Graphic on MarsBased's annual expenditures

What does a remote company spend its money on? This question has been asked in previous chapters, and the figure 7 shows how we manage expenses in MarsBased. As can be noted from the above chart, the biggest expenses are salaries and outsourcing. The company has six employees and three partners which make a total of 56% of the company's total expenses. Outsourcing covers 26% of the total expenses. Outsourcing means the work that we subcontract to freelancers who work for the company but not on a regular basis. We use them when we are overwhelmed with work or we need a professional that uses another technology that we do not work with. The finance model presents administration business as accounting work. The third expense group are taxes and public expenses (7%) which are the personal income taxes for each worker and corporate income tax paid to the Spanish social security. The rest of expenses are destined to Administration, Online subscription services and Material equipment, co-workings places etc.

As can be seen in figure 7, although we are spending a small part of our budget in renting co-working facility from time to time, we are not spending money in an office rental. The purpose is not to cut costs from the office rental. It means that we have more money to distribute into higher salaries than other IT companies in Spain. A company

that wants to pay someone less because she/he is a remote worker cannot be a good company.

3.5 Community

MarsBased is a remote working company founded in Barcelona and most of the employees live in Barcelona metropolitan area. People can wonder how do we get our clients. In MarsBased we think that is really important to help to develop the start-up atmosphere in the city where most of us live. The aim of creating this atmosphere is having a strong network to get new projects from potential clients in our city but also give back to the community in return.

Barcelona entrepreneurial ecosystem is one of the most creative and international ecosystems in the whole Europe. As shown in Figure 8, there are more than 300 start-ups with over 275 million euros funding. Almost ten thousand people work in the digital sector and Barcelona has more than 25 accelerators and 200 co-working places all over the city. [29]

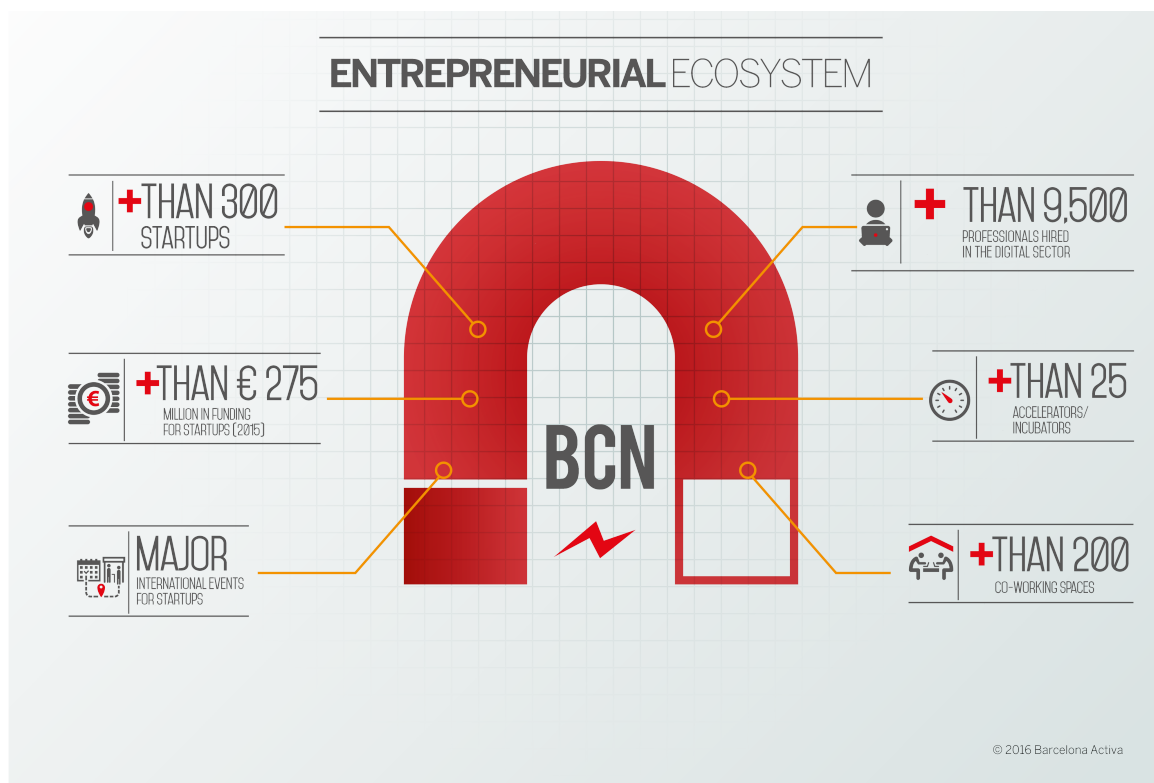


Figure 8. Graphic about entrepreneurial ecosystem in Barcelona with data from Barcelona Activa 2016 organization. [29]

For these reasons, MarsBased has developed three projects since 2014: Startup Grind Barcelona, Barcelona Startup Map and Startup BCN Slack.

Startup Grind Barcelona¹² is a Google for Entrepreneurs powered event celebrated in more than 200 cities and 85 different countries. Our CMO & Co-founder, Alex Rodriguez, is in charge of organizing this monthly event in Barcelona where distinguished entrepreneurs, founders, CEOs and all kind of tech-related professionals from all over the world are invited to talk in a live interview with Alex about their companies or projects. The aim of Startup Grind is to educate, inspire and connect entrepreneurs.

Barcelona Startup Map¹³ is a map-searching website created in 2014 with Department of Economic Development of the Barcelona City Council, Barcelona Activa, with the ambition of having a perspective view of the Barcelona's startup ecosystem. It locates where and what kind of startups are in Barcelona and it gives information about all of them. It also shows infographics of the different companies, accelerators/incubators,

¹² <https://www.startupgrind.com/barcelona/>

¹³ <http://w153.bcn.cat/>

venues, investors or service providers. This project also helped the company to be disclosed to Barcelona's city hall where we have been working with several projects.

As the last project that we have for the entrepreneur community is a Slack for any kind of people who would like to join, talk and share their stories about start-ups in Barcelona. This Slack is called "Startup BCN"¹⁴ and Slacks are only accessible with invitation. There are 493 members and different channels as Events, General, Jobs and Presentations. The aim of this project is to make the networking stronger and keep in touch with other entrepreneurs. Another purpose is to learn about events in Barcelona and get new clients or new jobs.

¹⁴ <https://marsbased.com/startups/>

4 Projects and Results

In this chapter I will talk about the results of two projects that I have been working remotely with in MarsBased in the last 4 months as UI/UX designer. I have chosen two projects that do not infringe our copyright policy with the clients. The first one is an open source project and the second one is an internal project.

4.1 Decidim Barcelona

Decidim Barcelona¹⁵ is a platform for citizen collaboration from Barcelona City government based in an open source software originally developed from the Madrid City government eParticipation website.

Barcelona City government asked MarsBased to re-design the whole website of Decidim Barcelona, and the project was given to me as the main UI/UX designer of the company at the end of July 2016.

My role in this project was to analyse the actual website that they had, to understand the main elements for the proper functioning of user usability, to add new elements in the new design, to improve the aesthetic design and to create a visual consistency with the corporate identity of the City of Barcelona's website.

¹⁵ <https://decidim.barcelona/>

Idioma: Español

Entrar Registrarse

decidim.barcelona

PROPUESTAS ACTUACIONES CITAS PRESENCIALES DEBATES PLAN MUNICIPAL MÁS INFORMACIÓN VISUALIZACIONES NOTICIAS

Propuestas

Aquí puedes navegar tanto por las propuestas que el Gobierno elaboró para la propuesta inicial para el Plan de Actuación Municipal 2016-2019 como para aquellas que provienen de la ciudadanía, de las citas presenciales o de propuestas realizadas por entidades y organizaciones sociales. También puedes consultar los apoyos recibidos y los comentarios de cada propuesta. Estas propuestas han sido estudiadas para su incorporación al plan y todas ellas han recibido una respuesta.

Baja el Plan Municipal

Todas Ayuntamiento Ciudadanía Organizaciones Citas presenciales

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RESULTADO DE LA REVISIÓN

- Todas
- Aceptadas
- Rechazadas

ÁMBITO

- Toda la ciudad
- Ciutat Vella

Mostrando 10860 propuestas

ALEATORIO MÁS ACTIVOS HOY MEJOR VALORADOS NUEVOS

Propuesta de actuación

Escoles amb entrada diferenciada al gimnàs i als espais espor...

BCN-2016-03-7417 **Aceptada** 30/03/2016

En les escoles de nova construcció o en fase de manteniment, garantir una entrada al gimnàs de manera diferenciada, separant l'accés a l'edifici de la resta de l'escola per poder obrir l'equipament a la resta del barri i consultant als usuaris i usuàries quin hauria de ser el plantejament de l'equipament.

Toda la ciudad Buen vivir Deportes

1 apoyos

Sin comentarios

Figure 9. Old design of “proposés” page in the Decidim.barcelona website.

By comparing figure 9 and figure 10, one can see the most relevant improvements on the webpage I have been working on. Header has been simplified to only occupy two lines and be simpler. Navigation in the page has been improved with navigation bread-crumbs which guides users into the different pages inside the whole website. Cards have been reduced in size to have more of them in less space. The aim was to create a bigger perspective view for the user to view more options. Call to action buttons has been added to create new cards. And finally the whole visual, user interaction and user experience has been improved to match the City of Barcelona’s website and create coherent design.

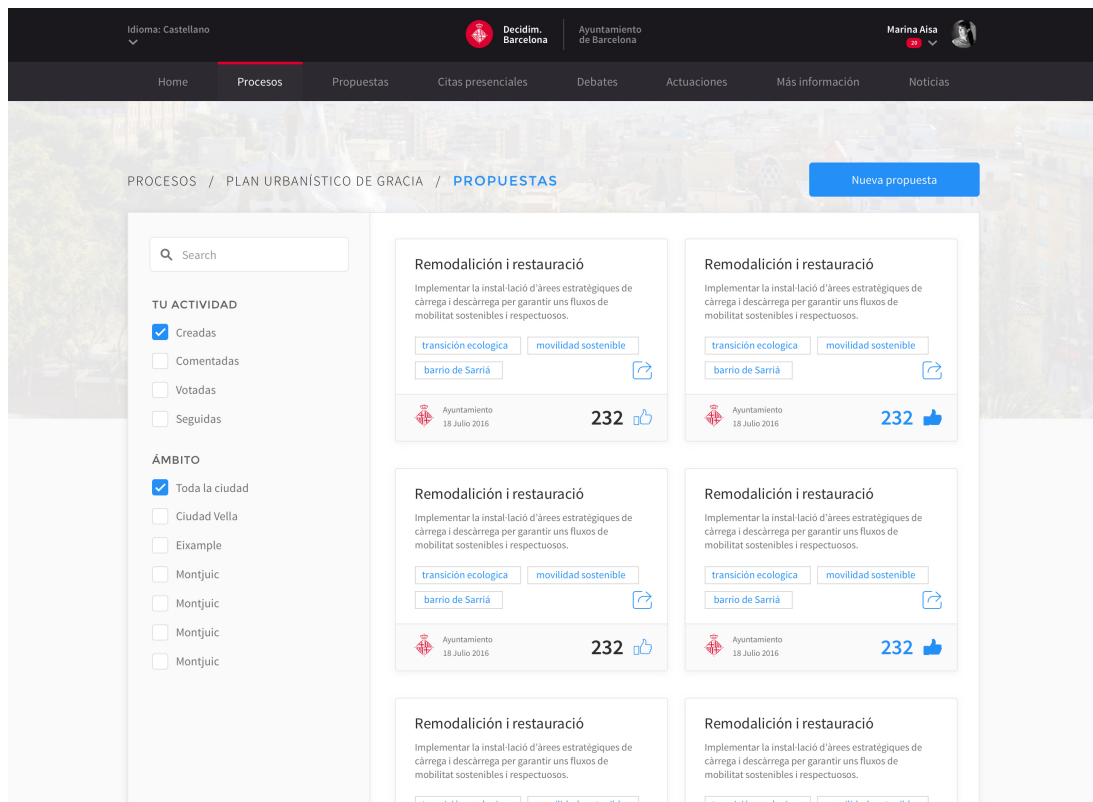


Figure 10. New re-design of “proposes” page for Decidim Barcelona re-design by me.

In the beginning, communication was in person since the client was the Barcelona City government and they wanted to organize a meeting. We had three face-to-face meetings during several weeks to discuss the product but the work done outside these meetings was online and remote. Beyond these meetings, we communicated by email and by InVision¹⁶, a tool to preview design work and to show the designs.

In this project there were two of us from MarsBased and two freelancers who we hired in August when we had holidays. The internal communication between us was done by using Slack and we used InVision to show the changes done. We stored our files in Google Drive.

¹⁶ <https://www.invisionapp.com/>

4.2 Marsman Template

MarsMan Template is an internal project created in September of 2016 for MarsBased which consists of a template with the visual elements that can be used in the most projects. The idea is to create our own Bootstrap framework.

The aim of MarsMan Template is to offer a structured, complete and competent design to clients who do not want to spend too much money on a personalized design and feel comfortable using our well-designed framework. Considering that it was an internal project, I had more time to work on it than anticipated. I experimented with new design techniques that would improve the remote working process with my co-worker who would do the front-end development afterwards.

Finally, I found a method to minimize time and create a design that could be reusable but which would also simplify the posterior work for the developer. The method is called Atomic Design. It is a design process created by product designer Brad Frost that consists of creating interfaces using molecules made of atoms that conform a whole ecosystem. Examples of atoms are buttons, labels or inputs which together shape molecules for example in the form of a label. Finally, an organism is the combination of molecules together as a navigation or footer. [30]

This method makes the design well organized and it is easier for the developer who will code it afterwards. Because everything is so detailed, very little extra information is needed from the designer. Atomic design helped to improve my remote working process with my internal team.

To start implementing this method, I created toolkit which contains all the molecules needed afterwards to organize the organisms of the whole project. It can be seen in figure 11:

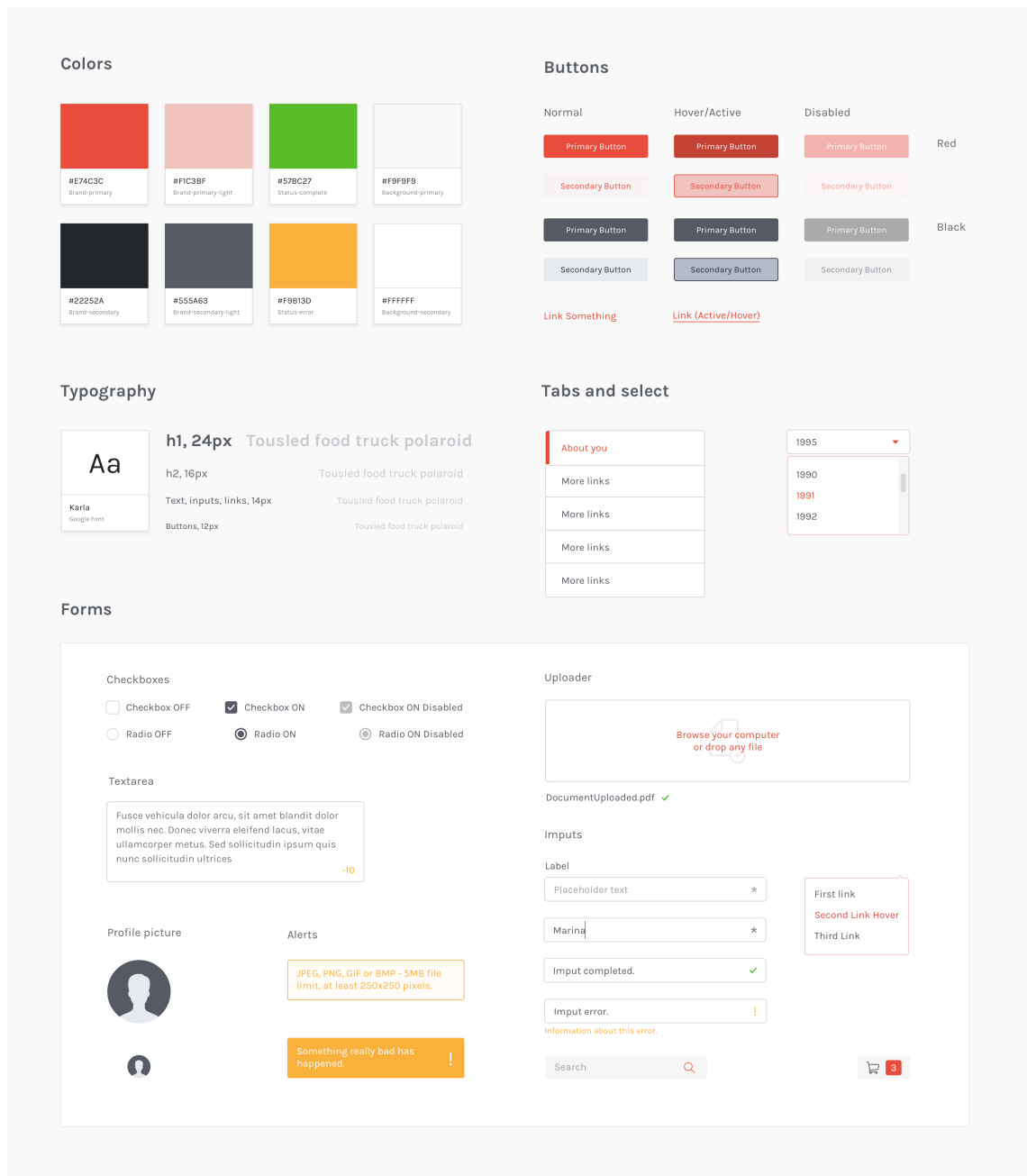


Figure 11. Toolkit with all the molecules used in MarsMan Template designed by me.

The result of the creating of organism and pages from the previous molecules are shown in figure 12.

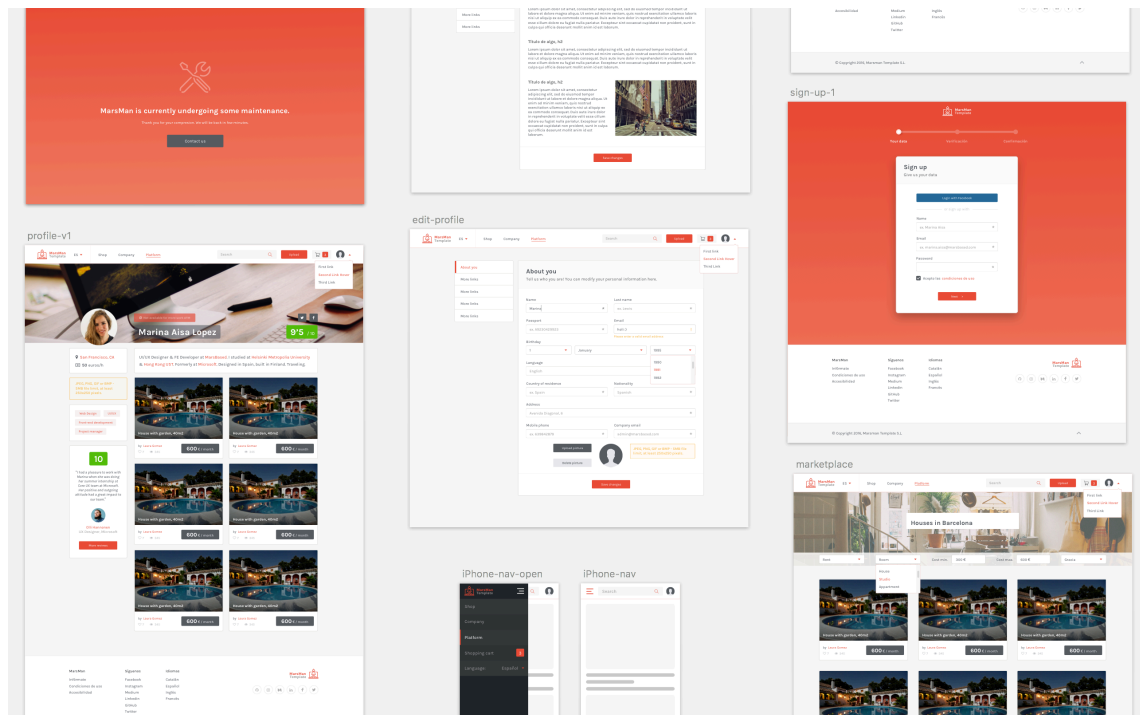


Figure 12. Different pages of the MarsMan Template designed by me for MarsBased

This time we did not have any client to work for so the communication was internal. The communication in this project was made in Slack and organized by tasks with the organisms needed in Trello by the project-manager, Jordi. These cards were reviewed by Jordi and Javier, the front-end developer who would implement them later on. The design process was made in September by me and it is being implemented as front-end at the moment by my co-worker, Javier.

5 Discussion

These 5 months working full-time remotely for MarsBased I learned a lot about a healthy, balanced and fair remote working. It was not the first time that I worked remotely but the first time that I worked for a company with a good remote working process. From January to May of 2016 I worked part-time for a Finnish start-up called Midealab as UI/UX designer while I was studying in Helsinki. In this company more than the 60% of the team was working remotely and the rest were working from an office. I was one of the remote workers since I was studying and it was more suitable for me working from the university or my house. My experience of working remotely in this company was not good because they did not know how to manage organization and communication with the remote workers properly. When a company that has offices forgets about their remote employees, they feel ignored and offline with what is happening in the business. Working remotely is not as easy as it may seem.

MarsBased has a very good organization structure with a good chief operating officer who takes care of communication with the different teams and individuals in each project. This company also has a very strong method of work because being a remote working company does not mean that everything is totally flexible and that there are no rules. Actually, in remote companies harder rules are needed to accomplish different tasks such as periodic meetings and weekly reports on time.

Working remotely as UI/UX Designer and Front-End Developer for a company that applies a good remote working policy as MarsBased has many pros. The first one is flexibility. I have been working full-time from different cities in Spain, Brussels, and even from Sofia, Bulgaria. Many times that I had doctor appointments I could just start working one or two hours later and change my working schedule without any problem.

The second benefit is that commuting is not needed. Many remote workers work from home because it is the most comfortable place to work from. There is no need to wake up early to take the metro or bus for around 30 minutes and then another 30 minutes to come back home.

Another benefit with working from home is the work-life balance, which allows to spend wisely the time that workers earn from not commuting to office. One can spend more

time with hobbies, family, studying and doing sports. In my case, I had more time to write my thesis when I was working.

And finally, one benefit that I had not thought so much beforehand is that remote working helped me to improve my productivity. During 2014, I worked for Microsoft and FastMonkeys, both conventional companies where no one worked outside their offices. I improved my productivity in MarsBased compared with Microsoft or FastMonkeys because the organization is better in remote working companies since they cannot succeed without it.

In conventional companies, teams work without organized structure. Because they are physically close together, they can organize meetings every morning. However, this is only a way of losing time. Endless meetings day after day and bad organization are common in many conventional companies. This is not the only thing that affects productivity, there can also be too much social activity with co-workers and too many coffee breaks. Also, you might not reach someone because he or she is in a meeting or outside the office. These were some of the experiences that I had in Microsoft and FastMonkeys. Also I noticed that large companies, as Microsoft, tend to move really slow compared with start-ups and this decreased my motivation.

But even companies which apply a good process for remote working can have problems. The first disadvantage is that as a creative worker you might suffer from a lack of brainstorming with other creative workers. In my case in MarsBased, this is not a problem because I am the only designer of the company since we are focused more in development than in design. But in the case that there would be other designers working with me, I think it could be a challenge to create ideas together.

The second disadvantage is that one becomes easily too sedentary. For me this is a problem because I like to do sports, go out and stay active physically. When I was working in offices, I did some sports and got exercise going to the office but this does not happen in remote working. Taking up Pilates has helped me to control body, breathing and stress. I also see it as a way to force myself to leave home and go somewhere to socialize in free time.

The third disadvantage for me is that it is risky to depend so much on technology. I have often had Skype meetings with clients to treat an important issue when Skype

stops or does not work properly. This leads to huge problems in communication. I fixed this problem changing my Wi-Fi connection in my house for a better one and trying to work from places where the connection is good.

Finally, I noticed that I actually spent more time working than I should. I like to finish things at the end of the day so if I have been working for 8 hours but I have less than one hour to finish an important thing and I do not have personal plans later on, I tend to finish it instead of stopping and leaving it for the following day. Often it is difficult to separate work from leisure time and this can lead to workaholic habits which are not good and fair for the worker. I have tried to solve this problem by using timer apps for Mac as Tyme¹⁷ which count the working hours so I can actually control that I am not exceeding the maximum of 8 hours working per day.

¹⁷ <http://tyme-app.com/>

6 Conclusion

The objective of my thesis was to analyse how remote working companies operate, and compare the findings with the routines of conventional companies. I also wanted to find out the positive and negative things of remote work and understand why remote work is such a big and trendy movement.

What I have learnt from this study it is that remote working is a growing trend because it improves the working process and quality of life of the workers. For remote work to be successful, companies must invest in efficient communication and organization methods.

Remote working is not just a way of saving office rental costs, nor is it a way to pay lower salaries to people living in other countries with lower income. Finally, it is not a working method that only second-class companies put in practise and forget about when they are bigger. It is a way of working and a way of life. It is about improving quality of life for the workers. It is about flexibility, trusting and creating an efficient and fair work process.

In future studies, it would be interesting to analyse how remote work affects employees' personal and professional life in the long run. It would also be interesting to study how remote work evolves in the global market with new techniques such as virtual reality which it is a technology that has not been marketed for professional use yet and how many companies which try this method would continue it after couple of years.

Based on my experiences both in traditional and remote companies, I feel that forcing employees to work only from their offices is very outdated. Luckily, this is changing.

“In thirty years' time, as technology moves forward even further, people are going to look back and wonder why offices ever existed”

Richard Branson, founder of Virgin Group [31]

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