POLITECNICO DI TORINO

Industrial Production and Technological Innovation

Master's degree Thesis

Badgebox: how digital tools create efficiencies within corporations

Relatore

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Before starting the document, marking the close of an important and valuable period of my life, I want to thank first the people who made all this possible in the past five years.

I deeply believe that we are the people who we are today thank to the ones who surrounded, came across, listened, supported and loved us till now. Life in the end matters for the experiences we live, the emotion we felt, the ones we shared them with and the things we have made for others.

I want to start from my parents, Fabrizio and Lorella, who, despite the distances and the up and down, keep up and resist to every happening and never give up in trying to make my life easier even in toughest moment. Everything that I have reached and accomplished till now is because of what we have passed together in last year, that didn't find in us weaknesses but rather incredible strength and energy. I don't want to spend too many words that eventually will lose value, I only want to let them know how solid and fantastic they are for me, even if I tried to distribute the weight also on me they carried the most.

Second my grandmother, that after intense years spent together during the bachelor's, after many promises hasn't seen me around as we would have wanted. Unfortunately, I had to stay far but she hasn't lost any chance to ask about me and sustain me in the simple things.

Third but not for the importance, Benedetta, the young woman who, foolish, decided to be my partner for the last years, seeing me in all my movements, changes, worries and success, and never showing a moment of uncertainty. She has been strong on my side, giving me comfort when I need, critics when I deserve and cheering when I reached the goal. She has been the proof that a real partner is your daily motivation to do better, to become better. We have been able to do good thing till now, I believe we can do great thing together in our future.

Fourth I have the rest of my family, that watched me from distance but always being ready to help when I was asking, supporting me when I was left alone and consolidating my trembling.

Fifth, I have my friends, some in university, some far away and spread across the world, who didn't care about my hiccups in communication and my unreachable phone, they have always made their difference in my experience. They have been counselors in the difficulties and comics in weekends, relieving pains and thought that the week brings to you. They have been the ones reminding me that life is a mix of things, balance my over-determination and career orientation, they were simply amazing to me.

Last as they arrived in my life but not for this with less impact, my boss, mentor and sponsor that together with my colleague brought me from being a young graduate to become a professional, speeding up my growth in a way I couldn't image. She made me try, assign challenges bigger than me but always ready to help by launching a life-jacket. I began this path without knowing most of my potential, now I find myself with self-awareness, self-confidence and a mindset that would have taken years to achieve.

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How I joined the Adecco Group

My relationship with the Adecco Group began in March 2018, when I was surfing on the Internet and I saw an interesting advertisement about the "CEO for One Month Program". It was showing the image of a young student from Cambridge, whose name is Ed Broadhead, promoting the unique and amazing program launched by the Group in 2011 in Norway. To make a long story short, the program consists in selecting a young talent among many applicants that every year send their CVs, to shadow for a month the CEO of the company in One of the 47 countries participating, after this phase all the CEOs are called to challenge each other for the position of Global CEO for One Month, shadowing the current CEO Alain Dehaze.

I was fascinated by this program, that already from the outside seemed an amazing experience to do and once in a life opportunity and so I decided to give my best in the application, wishing to have a chance. I didn't know much of the business at the beginning and thinking not to be accepted I didn't even prepare myself at the deserved level, but it happened, I was called to proceed the long and complex selection process. What is not mentioned in the advertisement is that, every year, in a country like Italy, the number of applicants usually exceeds the 13 thousand people and the funnel is strict and very selective. I won't spend much time describing all the criteria and tests, what I want to say is it is a special process and you remember even if you don't make it to the finals. I was lucky, and I pass through the main cuts and I arrived at the 4 days Bootcamp in Milan, which is basically about being assessed and observed 24 hours a day on every movement, especially living every second with your 7 strongest competitors. I have to say it was one of the best experiences I have ever made, I discovered more about myself in few days rather than years.

Looking back, I still don't know how but I got the final interview with Andrea and Monica, respectively the Country Manager of Italy and the HR Director for Italy, that to remind is a 2-billion-euro revenue company with 3000 employees. It happened that I won, I was appointed CEO for One Month of Italy, which started the 4th of June, from that moment onwards it would have never been the same life as before. The experience I lived deserves more pages in this document, but it is not the right room. What I can say I have learned a lot, like never expected and entering in the business dynamics from the top has been completely different and now I am looking at the operating model and decision taken in a complete different way, because I saw its complexity from behind the scenes. I have collected a new set of skills thank to client visits, events, interviews, normal activities for a person at the C-level but not for an undergraduate like me.

After this fantastic period, I was in front of a crucial decision, the feedback I was receiving was positive from the people I know in the company and probably they would have asked me to stay and specially to discuss the position I would have liked to get. Here I had few concrete option and to mention the once that were always coming to my mind were joining the Professional Recruitment brands, along with its managing director or join the IT team of Italy and Eastern Europe along with the Regional CIO. Eventually the choice

that I made is clear, but I have to say it hasn't been easy, I deeply evaluated the grow opportunities, the match with my background, the skills I could learn and especially the people to work with.

Mission and Vision of The Adecco Group

The vision

It is known and stated as: "Making the future work for everyone."

It consists in ensuring that people across the globe are inspired, motivated, trained and developed by the Group, becoming able to embrace the future of work. Creating for them environments where they are empowered to thrive, stimulated to succeed and given every chance to make their individual futures better and brighter than ever before.

Workplaces worldwide are changing, so it is time to push against traditional ways of thinking. There is no longer a norm to conform to. Whatever our business, whatever our sector, we must look to the future and be ready to rise to the challenges. We must familiarize ourselves with the workplace landscape ahead and start building the foundations of the organizational changes it may demand, and the opportunities it will offer.

The mission

We attract and grow leaders who make an impact on our people, our customers, our partners and the communities we operate in. They inspire and motivate their team members to use their hearts and minds to do the right thing. Our leaders are curious global citizens keen to make a positive difference. They focus on creating a great workplace for their teams, so they can perform and reach their potential. The Adecco Group leaders love having the freedom to innovate. Our core values are brought to life as they create opportunities to improve the lives of others. We are proud of the level of trust and engagement we have, because that in turn creates sustainable high performance.

One of the key advantages of the Group, being a Human Resource organization is creating the people centricity and in doing so placing the people into the right context, in terms of understanding where they are, where the world is going to and which is the gap to make everybody able to be up with the changes and able to give and express its best.[1]

Core Values

To realize the vision thanks to the mission there are some elements and pillars to be based on, to count on solid foundations from which build concrete experiences and offering, these are the company values.

[1] Source: Adecco Group Website

Figure n. 01 Adecco Group Five Core Values

Passion

We change the world of work, one job at a time

We are passionate about people: our colleagues, associates and clients. We make a difference for millions of people every year. We find people work, give them experience and the opportunity to build their futures. Quite simply, what we do is not a job, it's our passion

Entrepreneurship

We constantly take initiatives to empower people, fuel economies, and enrich societies

We take ownership and stand by our own results. We act upon opportunities. We learn fast from success and failure. We inspire others and continuously seek innovative solutions

Responsibility

We are the industry leader; our goal is to provide more work opportunities for more people

Work is a basic need and a basic right: by finding people the right job we provide them and their family with an income, status and a future. We promote diversity, equality and inclusivity in the workforce. We lead by example, we act with integrity and respect. We volunteer personal time and contribute to our communities

Team Spirit

We work together as one team

We share clients and associates across branches, business units and countries. We share ideas and best practises. We help our colleagues to grow personally and professionally. We work hard and have fun in what we do

Customer Centricity

We live by and for our customers' success, we want to be their top-of-mind and top-of-heart choice

We build lasting relationships with our clients. We provide them with the best talent on time and tailor-made solutions. We create value for our clients. We help them to be competitive through flexibility

Values are the soul and foundation of every successful company, they are the elements building a solid business model, environment, sustain and motivate great team. The employee must recognize themselves into them to feel fulfilled and be able to given their best to the organisation and, viceversa, it will return them its best.[2]

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[2] *Source: Adecco Group Core Values Website*

1 The Adecco Group

1.1 The Group Overview

Figure n. 02 Adecco Group Logo

When it started out 50 years ago, workplaces looked very different. Jobs for life were a given – quite simply, people stayed put.

Fast forward to today and the entire employment landscape has changed. There's increased temporary staffing. Talent mobility. A global requirement to deliver working patterns that meet candidates' needs without impacting business performance. At the Adecco Group people have followed every evolvement, every transformation, every new initiative. Every step of the way.

These days they are helping clients' in developing ways of working. To disrupt established ways of thinking and help them to devise the new ideas that will drive the HR Solutions industry forward.

The 360° brand ecosystem is a key differentiator in today's changing world of work. Through the unique ecosystem, they combine the individual strengths, knowhow and services of the leading network of brands in a one-stop shop, with the workforce career needs of clients and candidates at the center. The connected approach provides customers with the convenience, simplicity and efficiency of working with one trusted HR solutions partner throughout the work-life and economic cycles.

From staffing to outsourcing to upskilling and workforce transformation, the Adecco Group is making the future work for everyone.[3]

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[3] *Source: Adecco Group Annual Report 2018*
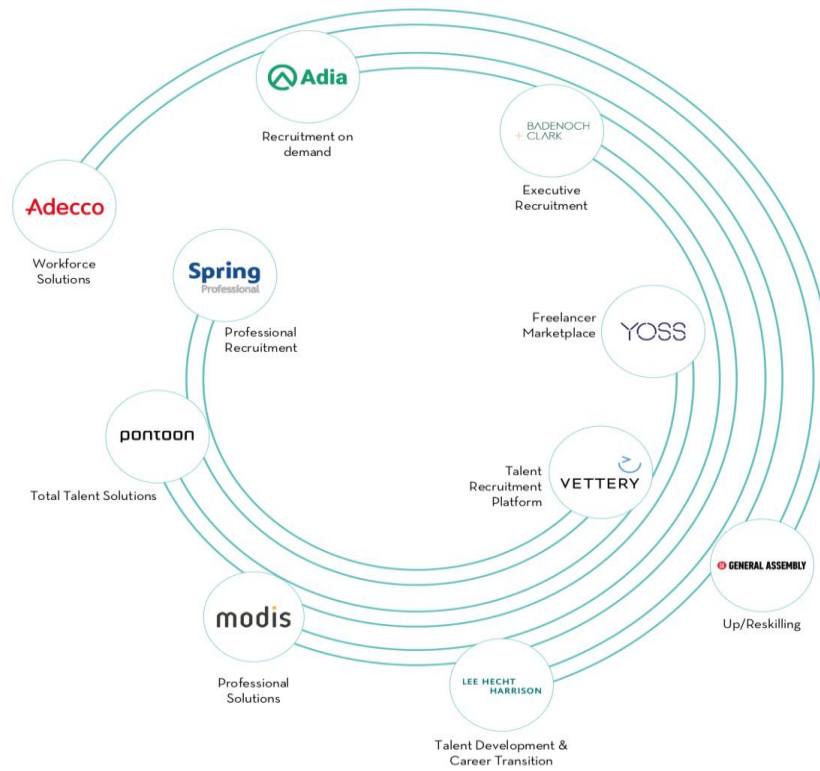
Figure n. 03 Adecco Group Brand Portfolio

1.2 The Group Portfolio

As already anticipated, the portfolio of brand the Group has is wider and very differentiated, with a full coverage of the services related to Human Resource as shown in Figure n. 03, they were born as individual identities and now they are merging together to create an ecosystem and exploit synergies to be the leading company in a transforming world when we speak about human capital.

Adecco

The world's leading workforce solutions company, offering temporary staffing, permanent placement and outsourcing across all sectors.

Pontoon

A leader in contingent and permanent workforce planning and talent advisory solutions across all industries. It provides qualified and global services related to MSP and RPO integrations and initiatives, support and enhancing client's capabilities.

Professional Recruitment

Generally, it comprehends all the brand performing, from the middle management onwards, permanent placement. For market reason this business line is operated with different brands.

Spring

A global recruitment leader, connecting management professionals with roles and opportunities across all industries.

Badenoch and Clark

A global recruitment specialist, offering interim and permanent placements for senior management and executive roles.

Penna

Penna is a people management business with an exceptional track record of working in partnership with the public and private sector. Penna is part of the Adecco Group (UK and Ireland), who is the largest recruitment organization in the UK with over 60 offices worldwide. The rich portfolio of services includes: employer proposition development, designing and delivering attraction strategies and managing the recruitment selection and assessment of top talent for interim and permanent executive roles.

Professional Staffing North America

The constellation of brands that is composing this business line is what makes it strong in the market. They are specialized in market niches able to satisfy the need of the more diverse clients and at the same time offer opportunities to the most specialized profiles. They cover markets that exists only in the US and its candidate centric model makes them very different from the standard Adecco Portfolio.

Modis

The world's leading provider of consulting, outsourcing, staffing and project services across IT, engineering and life sciences.

Lee Hetch Harrison

The world's leading talent development and transition company, helping individuals and organizations navigate workforce change. Organizations around the world are continuously transforming their businesses to drive growth and productivity. This involves changing the company's structure, culture, and capabilities—which requires carefully managing employee morale, engagement, and their employer brand to retain and attract

key talent. The challenge is how to manage the complexity of people and workforce change and execute quickly and consistently so they can realize their growth and productivity goals.

General Assembly

The leading global source for training and up/reskilling in high-demand fields like data-science, technology, design, and business. They transform careers and teams — including more than one third of the Fortune 100 — through dynamic courses in coding, data, design, and business. Today's complex, global economy requires a skilled workforce that can leverage technology to fuel success. Their pioneering education includes full-time and part-time courses taught on-campus, online, and on site with companies, giving individuals and teams flexible options for growth and development.

Adia

A digital staffing service, delivering jobs on demand in hospitality and catering, promotions and events as well as retail. Instead of trying to replicate an offline staffing experience in an online format, we started from the user experience perspective. The full user journey is designed to optimize the user experience of our workers and clients. Workers are able to handle their entire staffing experience using their smartphones: creating a profile, picking up shifts, getting paid become very simple and intuitive activities that can be done anytime and anywhere. Clients are able to book workers at a time that is convenient for them, using their smartphone or laptops, rather than being dependent on office opening hours. They have full control and transparency over their orders. They also have a differentiated offering compared to other online staffing businesses. Many of these start-ups offer 'search and match' only, whereas we offer a full temporary staffing solution. Many also only focus on a single vertical, which means fewer opportunities for workers. And we have market-leading technology, which is evidenced by our app store ratings, which are the highest in the sector.

Vettery

A talent recruitment platform that uses machine learning and real-time data to match highly qualified job-seekers with top companies. Vettery is changing the way people hire and get hired, using machine learning and real-time data to match talented job-seekers with inspiring companies. The goal is to enrich and automate the recruiting process, make hiring more rewarding for everyone, and create a happier and more accountable working world.

Yoss

An online marketplace enabling flexible connections between freelancers and their clients. YOSS is focused on connecting the millions of people attracted to this type of

work with the millions of corporations who are looking for more flexible and innovative ways to get work done. They help freelancers and contractors find longer term engagements with renowned companies while supporting their day-to-day business management -- and offering access to benefits traditionally associated with permanent employment, such as insurance and timely payment. Incubated by The Adecco Group and co-created with Microsoft, it is a robust end-to-end solution that gives both enterprises and freelancers the right tools and services to maximize productivity, manage their projects and talents, and harness the benefits of more flexible ways of working.[4]

1.3 The challenges globally

We started with an overview of the brand that are part of the Group, in reality there are many others, presented in the countries, most of the times offering very similar services but that present some peculiarities related to their market that makes difficult for them to scale up at a global level. While the brand we will talk about are the ones recognized as global and that have presence in different countries.

One of the key challenge to build and consolidate that ecosystem Alain Dehaze, the Global CEO is always promoting, there many actions still to be taken and some changes in the cultural mindset each company has. We have to say the Group has mostly grown for acquisition in past years and yet many businesses do not think and act as part of the same organization, they are still focused on their budgets, for the reason some new roles have been introduced to support this transformation. IT as a support functional is also involved, imagine creating shared database, analytics, at the end living in a digital era most of the times means starting from technology.

The imagine showed below is very useful to explain the concept of HR platform, the Group is using as value proposition to both clients and candidates.

Figure n. 04 Adecco Group Ecosystem

[4] *Source: The Adecco Group Portfolio Website*

Following the description of the brands, the idea is creating a value ring cycle, within a person can get into a never gets out and the same on the client side, using figure n. 04 to support. For the candidates the group is supporting is growth in terms of experiences, skills and position, for the clients is more becoming the partner for its tough and gold times. Imagine that you are a young professional, maybe still undergraduate and you want to help with some income at home, you would like to have something flexible and easy as a job, especially you don't want to go out and look for a part-time job, the answer from Adecco is Adia.

Here is the lock in to enter into the platform, you accept a job as waiter in a catering business working 16 hours a week, for medium period of time, then you finish university and from Adia you pass to the Adecco services, they find you a good job. You gain a good experience and you realize you want to have more, but you are missing an up to date skills set, you take a full intense course in General Assembly as a Software developer in the most advanced language. In few months you land into the Modis world, where you consult for some years, consolidating knowledge and skills till the moment you are so good they decided to make you responsible for a team.

Suddenly you are in a position where you need one more time new skills, to manage, motivate and commit a group of people and deal with different stakeholders, here is where brands like Mylia play a key role. It teaches you managerial skills and trains you to put them in practice, after the course you are finally able to lead your career towards new objectives. You can now access to the head hunting world with Spring, who can help you in finding middle management positions up to the level of Lee Hecht Harrison, where the level of soft skills is taken to another level thanks to its coaches, that enables your career and talent development.

At this point, you have reached such a high level and you have covered many senior roles, executive researchers are now looking for you and consultants from Badenoch + Clark will contact to you to offer Executive roles up to the CEO levels. If you have reached a solid level ok knowledge on your field you can even decide to embrace the life of the self-employee, the world of freelancers, the gig economy, is opening new doors for you or sometimes things can get worse for a company, maybe you are already close to the top in the organization but restructuring impact you and here is again Lee Hecht Harrison helping you in making you re-employable, teaching you new skills and supporting you in one the most struggling periods of your life.

Hoping to have presented a complete overview of the journey a candidate can partake in, we can think the same can happen to clients, just on the other side of the game. Accompanying growth, upskilling and reskilling, transition, restructuring and in risk mitigation. Now it is clear how the Group presents a service asset to wide, solid and complete to leave most of the competition behind, but especially being able to offer opportunities to anybody, making real the concept of being jobless but not workless.

The Top Management focus and 3 years plan

The Adecco Group is the global leader in HR solutions, but we have in total only 5% market share in staffing and permanent recruitment, due to a long tail of smaller local competitors. Historically, barriers to entry have been relatively low, and larger players have not offered a sufficiently differentiated service, especially in the SME segment that comprises approximately 60% of the market. A local, branch-based delivery model also limited economies of scale.

DIGITAL AND RISING COMPLEXITY WILL ENCOURAGE ORGANIC CONSOLIDATION OF THE HIGHLY FRAGMENTED INDUSTRY

Remainder of the market: 75%

The Adecco Group: 5%

Global peer 1: 5%

Global peer 2: 4%

Small global and large regional players: 11%
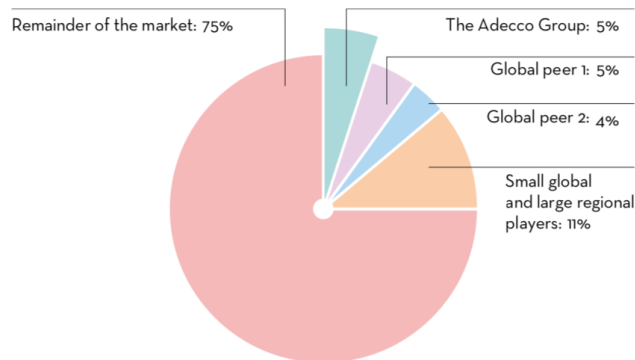
The Adecco Group is the global market leader with only 5% market share

The Group's digital evolution...

- increases economies of scale
- creates opportunities to differentiate
- raises barriers to entry
- allows access to new markets/segments

Figure n. 05 Adecco Group Market Share

The drivers of industry fragmentation are now reversing, and that the Adecco Group is well placed to expand its market share. By integrating more technology and digital solutions into the offering they are building differentiation versus traditional competitors. Technology is raising the barriers to entry, with smaller competitors less able to invest in the digital tools required to evolve their solutions 'beyond the branch', and to develop the omni channel delivery models that clients, candidates and associates expect. Economies of scale are also inherently higher in an industry where online solutions and data-driven insights are becoming more important.

What about new entrants from the technology industry? While the HR-tech landscape is alive with companies with promising ideas, it is established HR solutions partners, such as the Adecco Group, that are most able to leverage new technologies for the benefit of clients and candidates. It is difficult to replicate our broad knowledge of complex labor regulations and customer needs in 60 markets globally. Although the quantity of data is very extensive thanks to a large workforce and deep B2B client relationships. The ecosystem of brands and solutions allows us to provide holistic solutions to clients, across all of their workforce needs. These are assets that new technology entrants struggle to replicate.

Further, while technology can make certain transactional parts of the services more efficient, our clients need end-to-end solutions, which only begin at the point of the transaction. Ultimately, our solutions are about organizing and managing people and the human touch remains very important. Technology is an enabler rather than a substitute.

Experience teaches that technology players do not want to manage people. In fact, they already come to us for this. Rapidly scaling workforces is a different challenge to scaling technology, and it is a core competency of the Adecco Group.[5]

1.3.1   Strategy into action

A clear plan has been set up to leverage the megatrends to drive growth and profitability. The ethos of our strategy is Perform, Transform, Innovate. Perform means to keep delivering growth in a cost-disciplined, returns-focused way, driving out underperformance and deploying proven strategies of segmentation, Candidate and Client Portfolio Management (CCPM) and the PERFORM methodology, which translates a lean manufacturing approach to the office. By continuing to Perform, they can generate strong cash flow to fund crucial investments and attractive returns to shareholders.

Transform means strengthening the core business, to improve efficiency and create greater differentiation in service delivery, to drive profitable market share gains.

Innovate means capturing new growth opportunities in attractive adjacent markets, for example with our digital solutions. It also means leveraging the strength of te unique ecosystem of brands to offer complete workforce solutions that help solve the talent challenges being faced by clients and to support candidates and associates throughout their careers.

The combined power of our businesses and brands is brought to life through their ecosystem. It keeps them apart from the competition and stands out in the minds of customers. It allows to create customized solutions to meet our clients' and candidates' needs, throughout the economic and work-life cycles.

The ecosystem model provides unique synergies, efficiency and flexibility, as a convenient one-stop shop, delivering a truly 360° service offering. [6]

[5–6] *Source: Adecco Group Annual Report 2018*

A future that works for everyone

In an uncertain and fast-changing world, shaped by technological advances and artificial intelligence, it is important not to lose sight of the humanity at the heart of every business' operations. 2018 saw the 70th anniversary of the Universal Declaration of Human Rights, and the universality of its values of equality, inclusiveness and dignity remain as relevant today as ever before. Adecco believes as the world and the nature of employment change, it is important that the social and political environment adapt to reflect these changes, to ensure that nobody is left behind.

Businesses like this one have a role to play in creating this change, lending their expertise and resources. As the global leader in HR solutions, it is as their duty to set an example for sustainability and social value creation in our industry, and beyond. In 2018, the Adecco Group launched a new global sustainability framework. It sets us on course to fully integrate sustainability across all our brands and countries in the next few years.

Sustainability is a strategic choice and by interlinking the business with it, long-term commercial interests can be served better and can enhance value proposition to stakeholders, while respecting people and the planet.

The focus is on those factors that are most material to the business and to our stakeholders, and where we can make the biggest positive contribution. Make everyone having the right skills to gain, or maintain, access to the world of work is the vision. In response, they are training and educating more people than ever before, expanding our capabilities in up/reskilling and apprenticeships. Adecco also want to enable wellbeing, livelihoods, and the right balance between flexibility and security as the trusted employer. This is what drives advocacy for a new social contract for work in the 21st century. One that provides security for all and recognizes the new ways of working that are becoming more and more common. By working together with international and national institutions to shape and guide policies and standards, Adecco help expanding opportunities for all employees and grow the prosperity of society as a whole.

In 2017, Perform, Transform, innovate strategic agenda was launched; a root-and-branch upgrade of the business, to leverage the possibilities of digital in HR solutions. It is a multi-year program of investment and transformation that supports financial commitments: to drive true, structural growth, through the business cycle; to strengthen the margin structure; and to generate sustainable, strong cash flow.

The digital transformation of our core business has well and truly begun and is delivering tangible benefits. Through the Grow Together program they are improving the client and candidate experience, and reducing cost-to-serve, achieving the first EUR 50 million productivity savings in line with budget in 2018.

The innovation agenda also took an important step forward with the acquisition of General Assembly (GA), adding capabilities in up/reskilling that are complementary to the other brands. The combination of Lee Hecht Harrison and GA uniquely positioned The Group to address clients' urgent workforce transformation needs.

The economic environment in Europe, where the Group generates almost two thirds of its revenues, is becoming materially less favorable as previous decade. This led to a significant deceleration in Group organic revenue growth, which slowed from 6% (trading days adjusted) in Q1 2018 to minus 1% in Q4. And, unlike in 2017, when we were able to offset increased investments with strong operating leverage, EBITA margin excluding one-offs declined by 40 basis points year on year.

Overall, it is to say that the business delivered well on the Transform and Innovate pillars part of the strategic agenda but that the operations did not Perform always and everywhere at the level expected. Achieving the right balance between the strategic priorities is a key focus and after a more difficult first quarter, execution improved significantly. Despite the difficult external environment, the margin trend improved through the year, in Q4 delivering the first year-on-year margin increase in seven quarters, as returns on investments in the strategic programs ramped up, giving confidence as we enter 2019.

1. **Perform**

    The first step in the strategic agenda is Perform. It means continuing to deliver growth in the cost-disciplined and returns-focused. It is intended to create a culture of outperformance across the organization and it communicate and supported with the heptathlon principles. It is about delivering results, not just the outcome. That means embedding proven formulas such as segmentation, pricing and the 'PERFORM' methodology, which applies a lean manufacturing approach to the operations. It also means acting with urgency to improve underperforming businesses. By Performing, Adecco can earn the right to invest in our transformation program and in our New Ventures.

2. **Transform**

    Transform is about strengthening and future-proofing the core businesses, to drive accelerated growth and improved margins. Leveraging technology across the value chain, from sales to recruiting to middle- and back-office processes, to increase the efficiency of operations while the client and the candidate experience. At the center of Transform is Grow Together program, in which we will dive in more later. Its various initiatives are establishing differentiation in the service offering and increasing economies of scale. In 2018, the first EUR 50 million productivity savings were achieved and also increased Net Promoter Score.

3. **Innovate**

    With the final pillar of the strategy, Innovate, Adecco is building businesses in attractive adjacent markets, to capture new opportunities in high-growth, high-margin segments. This includes online versions of the offline businesses, such as Adia (staffing) and Vettery (permanent recruitment), as well as businesses such as General Assembly (up/reskilling), which leverage workforce megatrends. The objective is to become the digital leader in the industry, disrupting it from the inside by bringing together the best of HR solutions with the best of tech, and leveraging knowledge, data and B2B distribution. [7]

1.4 The Adecco Group at a Glance

In Figure n. 06 are reported some of the key services provided by the Group and some of the most relevant stats as they are shown in the Annual Report. We can see the four main categories of offerings which are: Temporary staffing, Permanent Placement, Career transition and Outsourcing with the Brands that were described before.

In general, within the group the services are divided into two main categories: workforce solution or General Staffing and Professional Staffing and Solution. The first is counting on the contribution of Adecco and Adia, the second on all the other brands.

Figure n. 06 Adecco Group At a Glance

At the bottom we find the total number of Staff, that globally in more than 60 countries there are more than 34 000 thousand colleagues, exceeding 100 000 clients and giving job every day to more than 700 000 associates around the world. [8]

Digital is Key

Historically, barriers to entry have been relatively low, and larger players have not offered a sufficiently differentiated service, especially in the SME segment that comprises approximately 60% of the market. A local, branch-based delivery model also limited economies of scale.

The Adecco Group is well placed to expand its market share. By integrating more technology and digital solutions into the offering to leave behind, thanks to differentiation, the traditional competitors. Technology is raising the barriers to entry, with smaller competitors less able to invest in the digital tools required to evolve their solutions 'beyond the branch', and to develop the omni channel delivery models that our clients, candidates and associates expect. Economies of scale are also inherently higher in an industry where online solutions and data-driven insights are becoming more important.

The threat can come properly from the technology industry, while the HR-tech landscape is alive with companies with promising ideas, it is established HR solutions partners, such as the Adecco Group, that are most able to leverage new technologies for the benefit of clients and candidates. It is difficult to replicate the broad knowledge of complex labor regulations and customer needs in 60 markets globally.

The ecosystem of brands and solutions allows us to provide a great portfolio of solutions to clients, across all of their workforce needs and new technology entrants will struggle to replicate.

Ultimately, Adecco services are about organizing and managing people and the human touch remains very important. Technology is an enabler rather than a substitute. Scaling workforces is a different challenge to scaling technology, and it is a core competency of the Adecco Group.

1.5 Adecco Brand Overview

The Adecco Brand is present in more than 60 countries all over the Globe in every continent as is outlined in figure n. 07.

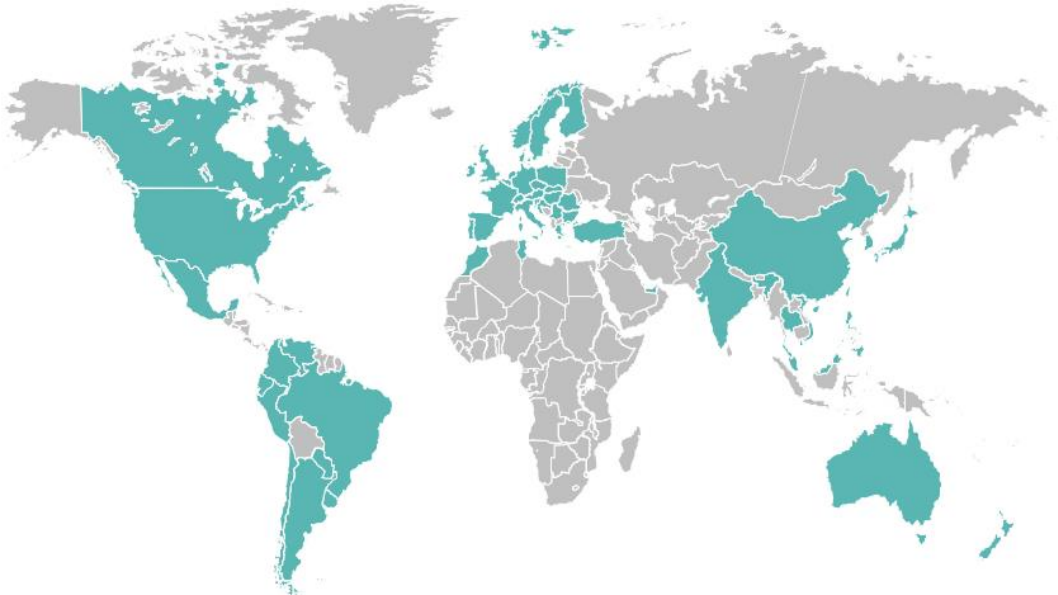[7 – 8] *Source: Adecco Group Annual Report 2018*

Figure n. 07 Adecco Group Global Presence

1.5.1 Description of the Adecco way to operate

The Adecco group is a holding enterprise which provides 360 degrees HR services, with the companies and brands listed above. However, the origin of their group, as the name says is Adecco. Adecco was born in 1996 as a merge between the two biggest staffing companies in Europe, the French Ecco and Suisse Adia, following with the Acquisition of Olsten Staffing in the US and Dis AG in Germany reaching in 2007 more than 12 billion revenues.

This is to underline how, despite the new trends in HR sectors and Digital Transformation and the relative brands who offer new personnel services, the main contributor to the Group has always been the Adecco Brand in every country. In fact, most of the countries are still investing a lot of time and effort in developing this "cow" and still keeping in the second line the names "dogs" following the four quadrants of BCG matrix. In addition, both to the B2B and B2C Adecco is seen as the main solution, since it matches the offer of clients with the demand of customers, enabling people to change or find a new job and customers growing thanks to high skilled and ready to work associates.

The Adecco way of operating is almost replicated in every country of the group or at least requires the same steps but still changes a lot when touching regulations and payroll. The process can be structured and analyzed from two different point of view, the customer and client ones. First, let's go back to the main services Adecco offered and still offers. Temporary staffing already suggests what it about, a staff is an employee that performs for a temporary period, then the type of specialization of the staff or person varies a lot and also the duration. The service mainly started from a manufacturing need of facing the peaks of production due to demand fluctuations, that of course can differ according to the industry and market. Now we could say that a business does not have the need of benefit of external service to find a person for a couple of weeks to solve its

problems, but if we look at the complexity of the market `the timing and efforts that an HR should do to cover only two weeks is not worth it. Especially when we add factors like urgency, payroll, competencies, experience in selection phases and number, since can be one person or whole department.

Therefore, we can summarize the role of Adecco as a competence and experience partner for every type of business. The key competitive advantage is the trust, network and experience since the people hired are highly qualified and certified, in general there are always some available and the selection is done following the real need of a client, respecting its requirement with some advices. [9] *Source: Adecco Group Website History*

Starting with the customer point of view, a person finds Adecco whether it is a physical branch in the street and comes is or goes to the website, in both cases is registered with personal data, curriculum, experience and capabilities and a first screening is done. Then `the person directly or thank to the consultant can apply to a job position, when the profile matches with the offer the so called from now "candidates" passes through interviews and eventually its profile is sent and showed to the client that, with the help of the Recruiter and sales person approves the person that becomes officially an associates once signed the contract. The positive aspects for both candidates and associates is remaining into the Adecco network, that can get in touch again with them in the future to offer new positions and also permanent jobs that clients might open. Many times, Adecco is also a sort of trial and training for associates that if performing well can be hired immediately after the end of the contract.

For the client stand point instead it is more complex and different because some clients do not know the services Adecco provides and relies often on stretched assignments of internal employees to cover specific need, eventually call external without contracts especially in Italy or do not even see the need. The role of the salesperson is crucial, and many times is seen more as a consultant role on many aspects, from regulations to Human Resources, in particular with small and medium enterprises. Once the prospect signees the contract it becomes a client and research starts, in a time span of few days or weeks, depending on the number of people and type of profiles, the clients receive a shortlist from which to pick up the associates.

1.5.2 Competition high level view

The main competitors which have a Global present and constitute the major other players in the HR Service industry are:

- Hays
- Kelly Services
- ManpowerGroup
- PageGroup
- Randstad
- Synergie Group
- Gi Group

In particular, the closest to Adecco in terms of dimension and business offering are the Dutch Randstad and the American Manpower.

1.6 Adecco Staffing Business

Adecco is anyhow the main Brand of the Group. I like to say that Adecco presents a four stages process: attraction, selection, match and performance within operates also different departments. Attraction is where a person discovers and Register to Adecco and here the marketing function is the most important, then selection where Candidate department and Human resource make the difference, the match where candidates and client find each other, last but not the least performance, here is the revenue generating stage for Adecco and where is still required lot of effort and the satisfaction of the clients is reached.

Despite this Candidate view, in reality within Adecco is standard to divide all the processes into three main areas on activities, consequently translated in IT language as well. Everything start from the Front Office activities, generally considered as the ones seen by candidates and clients, Middle Office where the associate management is done and also all the steps related to the offering and match of people with skills, it is not seen but touched at some point, last one the Back Office related to the management of internal procedures like finance, Human Resource, therefore are not seen externally.

1.6.1 Description of the Adecco Associate Journey

When describing the Candidate Journey it is necessary to speak again about Front and Middle Office, also Back Office is not completed excluded. In fact, depending on the department or point of view to which you are looking at the process there are different perspectives and way of classifying as it clear in the following picture.
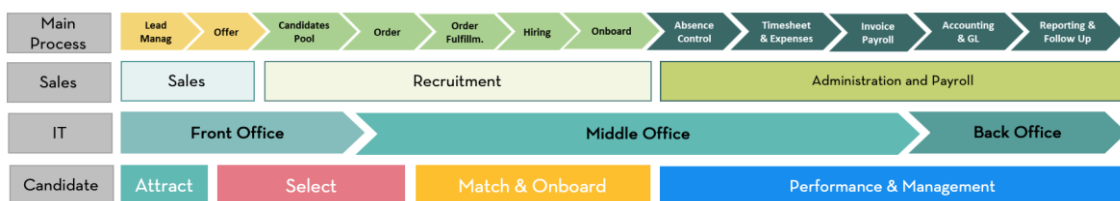
Figure n. 08 Adecco Candidate Journey

In the first line of figure n. 08 you can see the main process, or the classification an external would use to describe the process, while going to sales we divide generally the service we are selling as a first mere sales part and after the execution with Recruitment and Administration. IT looks at the thing with the three main terms of FO, MO and BO, while the candidate who ignores of all of these but lives it, sees the first step as attraction, you go to Adecco, then there is the selection process, the final match and contract and then you go to work.

1.6.2   Journey main touch points

Figure n. 09 Adecco Journey Main Touch points

Analyzing in detail what a candidate's experiences before becoming an associate is what presented in the image above. You are first attracted by marketing campaigns, brand awareness, lead generation, in the meantime the salesperson is visiting the client trying to offer the service to fulfill the position successfully. The candidate sends then CV and gets into the Pool of candidates in the branch, on the other side the order from the client is received and start the search and march of candidates. They are screened and interviewed until the match is done and the order fulfilled. At this point the contract is ready and the candidate need to sign it to finally onboard and become an associate. Once ready, after training when needed, they are ready to go to the clients' site to start their mission where starts the complex process for Adecco, that at the same time is the added value service for the client.

In fact, in the moment in which a person starts working for the client, other activities has to start as well, these are the Time Capturing, the Expenses Management if present and the Absences Control that finally go into the Invoicing and Payroll to close with Accounting and Reporting. When I was put on the project the situation of the Administration of Associates was the one presented in the image n. 10.
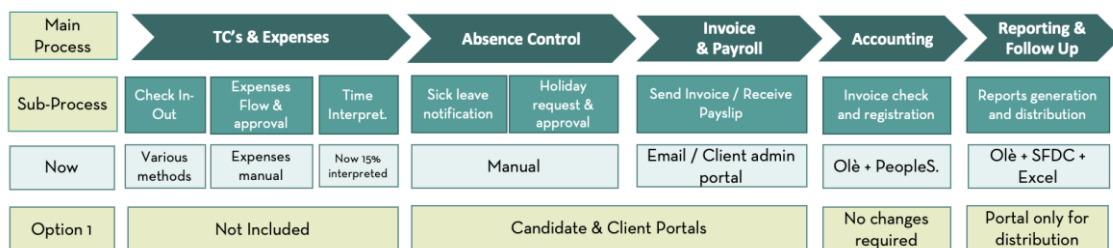
Figure n. 10 Adecco Candidate Management

As of June 2018, the check in and check out was done with various and different methods and tools with a total 44% of timesheets still on paper. The expenses were all managed manually by the branch responsible, all the leave management was performed manually and with no standardization with a constant ping-pong between branch and SSC. Last only 15% of the timesheet were considered already interpreted, not because of automation, rather they were sent directly by the clients. We stop here since this is the area in scope of the project, of course the impacted chain is longer, but the major benefits would be among these steps. For a long time as showed it has been thought to use the candidates and client portal, the way we call the websites with the private area, to perform some tasks, but with no success.

1.6.3   To Be Process

The mapping reported was designed for the kick off of the Grow Together project in Italy and it is very helpful to understand how it works and especially how is represented the importance of Badgebox within the process.
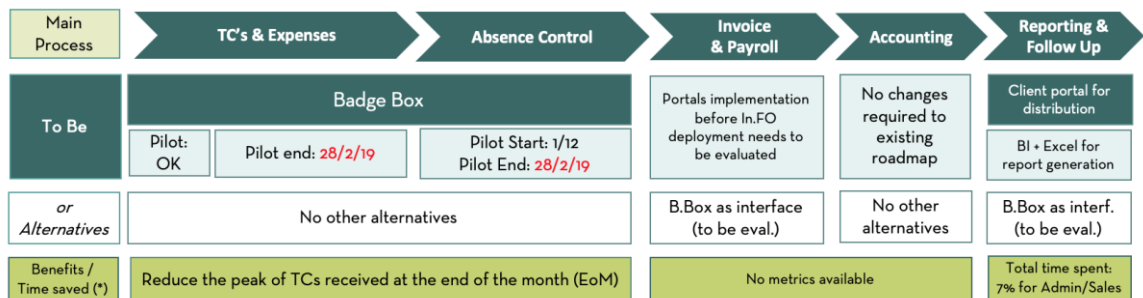
Main Process	TC's & Expenses	Absence Control	Invoice & Payroll	Accounting	Reporting & Follow Up
To Be	Badge Box		Portals implementation before In.FO deployment needs to be evaluated	No changes required to existing roadmap	Client portal for distribution
	Pilot: OK	Pilot end: 28/2/19	Pilot Start: 1/12 Pilot End: 28/2/19			BI + Excel for report generation
or Alternatives	No other alternatives		B.Box as interface (to be eval.)	No other alternatives	B.Box as interf. (to be eval.)
Benefits / Time saved (*)	Reduce the peak of TCs received at the end of the month (EoM)		No metrics available		Total time spent: 7% for Admin/Sales

Figure n. 11 Adecco To Be Candidate Management

Looking at the new landscape (image n.11) it is clear how uniform and standard it will appear, especially when we think about the data flowing that is elaborated always in the same tool and do not required integrations and inefficient steps. The actual process was a real circle of information among systems that at some point must merge into a common one for invoicing and payroll, like in a production line, the item is always been built on the same chain, passing through the same machines and in the hand of same operators. Otherwise the probability of having a non-conform part is higher.

1.6.4   Associate Payroll process

At the end of the month, when finally, all the data are collect the SSC is able to start the interpretation of the timesheet to calculate the exact payslip for each associate. The process is a simple calculation, but you can imagine how complex it is when information is spread in many different sources, one for the time records, another one for leave management and even more if he can do expenses notes.

The operators have also to consider the notes made by the client, where he can specify if that hour or bunch of minutes have to be considered as extra time or have not to be paid. Again, this information is often present in a non-standard way. In the end when the total amount of hours is calculated and classified they must be multiplied for the hourly pay for the particular bargain contract the associates results to be in. Once obtain the total amount the payment and the payslip are sent to him, within the 15th of the next month, due to regulation.

1.6.5   Billing process to Clients

Since the business of Adecco is selling performances rated by the number of hours worked, the billing to clients can be done only after the conclusion of the payroll process described above. However, some estimations are sent in advance to the clients, but the

billing is effectively done later, now if the 15th is the due date for the payroll and they are always closing on time, the billing process only starts later, meaning that Adecco pays in advance respect to the credit collection. This is the reason why many companies decide to go for the administration of external workforce to take advantage of the two-month period between payslip and billing payment. This is one of the main advantages of companies like Adecco, but it is a problem in cash flow and treasury, giving the fact they basically borrow money to clients.

1.6.6   IT department and team structure

Important is to mention the structure of the IT department within the Adecco Group organisation for the involvement of many actors during the project, understand the navigation (sealing) that have done during the roll out and see technically the impact of the implementation of a new application among the actual ones.

Starting from the teams set up and then we can move to the application set up. When I joined the organisation in July 2018 the IT department was composed by 39 people, of which 8 where external consultant but with long term contracts.
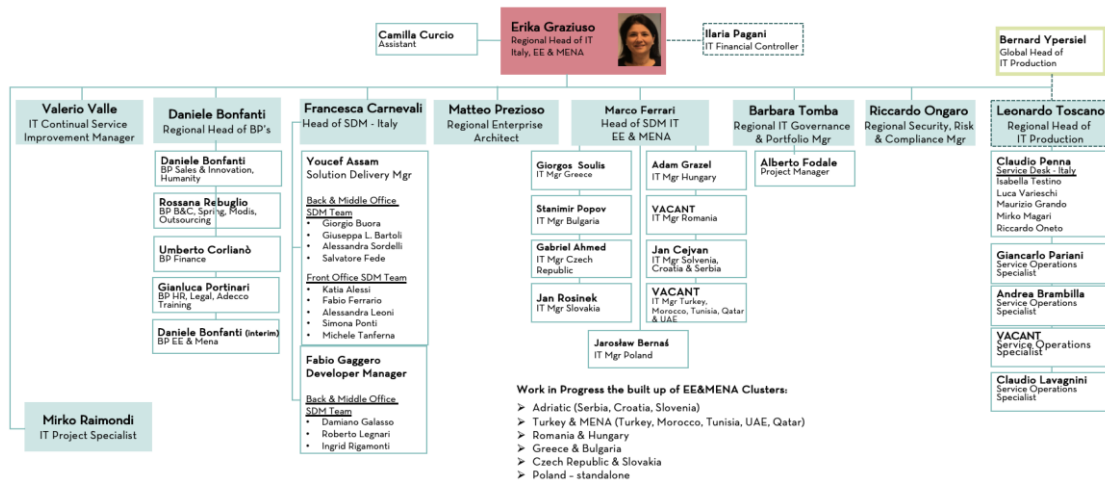

Figure n. 12 Adecco Italy IT Organisational Chart

A classic IT organisation is generally structured in the following, as represented in the org chart above (image n. 12), starting from the left there must be in a flexible organisation a person accountable for the Continuous Improvement, responsible for the methodologies and project. Then a team of Business Partners, the role that are the interfaces between IT and the Business to collect needs, suggest solutions and mitigate between the achievable in terms of cost and capabilities.

After that there is a team of Solution Delivery Management or SDM, who are responsible for the application management and deal directly with the vendors of the applications, an Enterprise architect is necessary to design and structure the landscape and exchange of data in the most efficient way. Going on we find the Portfolio Management role

responsible for the tracking of projects, budget and governance, working closely with the CIO and the IT controller for the expenses.

Nowadays the figure of the Security and Risk Compliance Manager is becoming more and more important to ensure data protection and regulation respect. Last but not the least, Production is responsible for the management of the environments where application run, such as servers and data centers, together with network and devices control. Besides this organisational composition.

I had a special role taking care of some particular strategic initiatives directly indicated by the CIO, who I am reporting in a solid line.
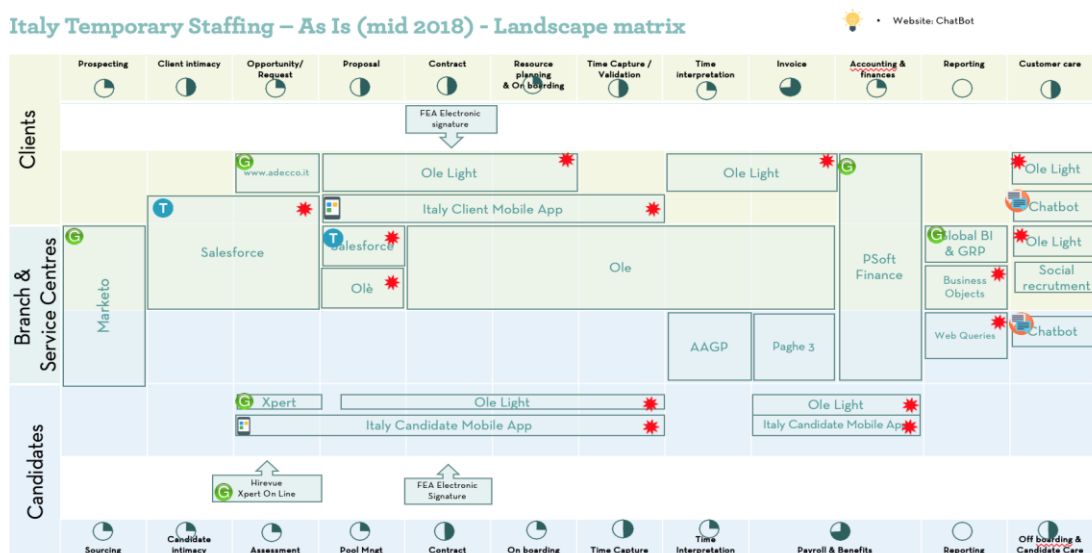
1.6.7   IT Architecture

Figure n. 13 Adecco Italy IT Architecture

Talking about architecture in a IT department seems not to be so far from the common idea of architect we all have, we immediately associate this role with somebody in charge of designing a house from an external to an internal stand point. This person also has to imagine the living spaces and the dimension of each room, thinking about the best way to connect them, create the right brightness with windows and lights. An IT architect has not a so different role, he has to design the application landscape of the company presenting blueprints like the one above, similar to a house project one.

Explaining without going into the details what is represented in the image above n.13, this scheme follows on the top the Adecco process from a client program point of view, going from the prospecting of the client to the customer care. On the bottom the equivalent process from a candidate stand point starting from the sourcing with the lead generation to the end of the contract with Adecco. In a sort of sandwich, in the middle, we see Adecco branches with their activities to link each step of the two worlds and create an integrated system.

To give an idea of the overall process with the enabler system, we start sourcing with a marketing automation tool called Marketo on the left, once the visit to client is done we are already into Salesforce, our CRM tool, after that we go into Ole, the legacy ERP to do the search and match, basically the management of the client request and the engagement of candidates. When performing the mission in the client site we pass through the FEA, electronic signature, the we have various methods of time capturing we will explain later that go finally into AAGP to consolidate. From AAGP they are sent into Paghe 3 for the interpretation, payroll and invoicing. Last, we arrive in the world of Oracle with PeopleSoft for accounting, closing with reports made by PowerBI.

All these systems talk to each other, they are interfaced and seems to be a perfect a harmonized flow and landscape, in reality around these there still a lot of manual work done and excel spreadsheets that must be substituted.

1.6.8   Back Office challenges, Billing and Payroll

As anticipated in the previous chapter there are still some processes that must be fixed, because they require manual work and excel sheet which are not acceptable in a digital era. In particular these activities that are very time consuming and are zero added value, the people performing them have not such a great experience and can be trained to do more useful and fulfilling tasks. Therefore, one of the challenges the company has, marrying this with IT, is to target these steps, map them, and evaluate possible solutions, also to make the thing more scalable.

Luckily the business has grown in the past years but so also did the number of people in the so called, "back office" jobs to make everything run, the objective is to achieve a ratio not of 1:1 but at least of 1:0,5. In a more and more competitive environment is really important to decrease the amount of SG&A lines, to guarantee an attraction to investors, that something a multinational company, quoted in the stock market has to care of.

Let's consider a piece of architecture showed before, if we look at the Time Interpretation, Invoice, Payroll & Benefits we have Ole', AAGP, Ole Light and Paghe 3 as the image n.13 on the left. The Application are interfaced and data flows perfectly from a system to another, fast and effortless. In reality here, when we start looking at it was like opening a Pandora Vase, once opened the box there were rooms for improvement, but while digging thing got even more complex. In fact, this is the topic at the end, this document is aimed to tell about.

Here a lot of data was collected in many different ways, from many tools, with no standard data set and then harmonized into AAGP, a tool to re-elaborate data, in a production line is like adding a low added value machine, meaning to slow down the flow and creating a bottle neck probably (it revealed to be). Then this data half manually, half electronically arrived into Paghe 3 to be interpreted and this is only a repository, the process is completely done manually. Once concluded payroll and invoices are composed and sent.
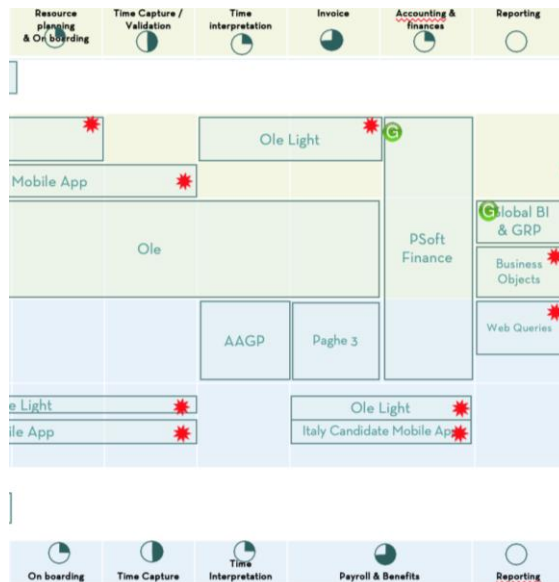
Figure n. 13 Adecco Italy IT Architecture Middle Office

I cited only one of the challenges Adecco is facing and in which IT is partaking into, to make a better understanding here is reported the ideal To Be Architecture.
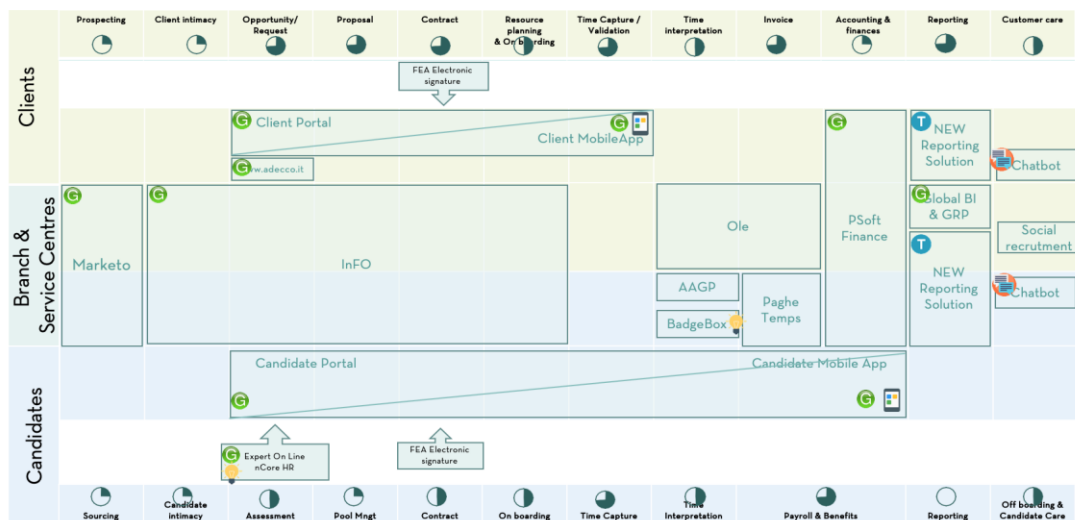
Figure n. 14 Adecco Italy IT To Be Architecture

There are important changes to be done in less than 3 years' time, to cite some of them, the roll out of InFO, the Global Front Office tool both on client and candidate side, the launch of new mobile app both client and candidates, as the new block in the architecture of image n.14. The introduction, that we will see later, of Badgebox in the Time Capturing and Interpretation area, integrated with the new candidate app to create a total new experience for our associates.

1.6.9 How digitalization can impact Adecco

The new architecture is a clear sign of the digitization process Adecco is passing through, by launching the mobile app, completely integrated and capable of all the functionalities required to engage a new relationship with Adecco, both as a client and as a candidate. In The last decade we have seen every industry impacted by technology and one of the last to be shaken is the Human Resource sector, for its nature is a lot based on personal relationships and human touch.

However, there are megatrends impacting the labor market which Adecco had to leverage or defend from and technology really plays a central role. There are different aspects to consider, as already mentioned, the reduction of SG&A, meaning running the business at the same level but with less expenses, being able to scale up and down easily, being more scalable in the end. The other one is launching new services with new business model, that inevitably are blowing away business that has lasted but 40 years, and leader like Adecco not only has to follow but must drive, to keep its first position in the market.

1.6.10 Grow Together Program

As mentioned in the introduction of the Adecco Group, there are many challenges that is facing globally, to use the opportunity of creating Global functions to leverage best practices and creating efficiencies within departments and among them as well. In fact, the IT function has to be considered as more than a Back-Office pillar, but as an enable and partner of the Business functions in this decade and even more central in the next years ahead. In the Transform program the internal teams have the task to review all the internal process and procedure to map where the added value is and cut the additional step that only drag resources, to make everything more lean and efficient. Only after the all assessment of the actual processes the IT can step in by proposing innovative and digital solutions to speed up the already cleaned work flow.

This seems to be an easy project but, it faces many frictions related to change management. During the review of the actual process usually outlines that the initial process was design as good and efficient, then people with their daily job have been creating small customization and especially they have learned how to navigate their job, become then an establish and easy routine for them. When it arrives to the point of removing steps or cutting useless information they usually complain about it, thinking that the actual picture is the best one, not realizing the possible efficiencies that can be created and that will make their job easier and faster.

Another important factor to mention is the misconception that generally is created around IT department and the product delivered. Nowadays, technology has for sure impacted our everyday activities, simplifying our way of operating and enhancing our capabilities. However, technology is fortunately and unfortunately capable of replacing one of the best skills humans still uniquely own, problem solving and design. Since platform and software are not build as top down solution, rather than are programmed to be bottom

up enabler of people work they need a standard Target Operating Model, a clear process flow to follow in order to work correctly and create efficiencies.

Mentioning this is fundamental to explain the difficulties faced during the roll out of the project, since most of time the obstacle was mostly the change management and commitment of the teams.

Generally during my experience as Project Manager, I saw only once time a technical issue blocking the development due to an old set up of the ERP, related its integration with the platform to pass the token for the Sign in the new Application. The rest of the slowdowns were caused by scarce commitment and trust on the solution and especially resilience in changing the actual processes, because they were impacting their daily routine. While technical issue can be sort out in few hours when tackled by a dedicated task force, people are more difficult to convince and drive, in particular when dealing with Italian equips who have culturally low preferences for risks.

2 BADGEBOX PROJECT

2.1 The Business Requirements

2.1.1 Final Objectives and KPI

The projects we are going to see, considered and promoted as Grow Together has as main drivers of the project the input given by the CFO, even if was something pretty known across the organization. The pain points highlighted were basically 4 and are stated in the following:

1. There is still significant percentage of timecards not digitalized or delivered in the first week of the month (not interpreted).
2. Most of the absences (holidays or illness) are still managed manually.
3. There is a bottleneck during invoicing phase due to continuous cost/price updates (not linked to negotiations and contract).
4. The Branches often have to control the records from SSC input, creating overlapping and inefficiencies.

The topic was put on the desk of Erika, the CIO to start a collaboration between IT and Finance to find and design a new solution. The Objectives agreed are these:

1. Achieve more than a 90% of digital timesheet by the mid of 2019.
2. Manage 100% of the absences on a digital tool.
3. Better Integrate the Invoicing tool to avoid rework.
4. Create a control at source of timesheets to avoid branch double check.

These were very challenging objectives, but they were really priorities to be solved, on top of that IT internally decided to go beyond the limits and to implement at the same time an interpretation tool, to make even better than expected.

2.1.2 One single App

Among the final objectives that the implementation of the platform have is leveraging its potential as it is available on every type of device, you can access Badgebox from laptop, tablet and smartphone. In fact, it has been built to allow clients to look at data wherever they are and whenever they want, in line with the standard of digital platform that we have in mind nowadays, thus availability and accessibility 24/7.

Adecco instead, focusing mainly on the business and sales activities, haven't had in last year a strategy for the long term to align and innovate its system in order to reach the market standard and also to be once more the leader even in terms of digitalization. The Group core business is not IT and like many other corporations are doing they are running after the actual technological pace faster and faster, especially leveraging the

solutions provided by small startup that have the ability to create digital tools from scratch.

In this case, Adecco built an App, two Apps for different purposes. Generally, within the Adecco organisation there is a huge separation between the world of candidates, people who are not working with Adecco yet and associates, the ones who are working with Adecco. Since the two categories are managed in very different ways and with different processes integrated at same point with each other, the choice was to divide even the Apps. Even though this was creating confusion among candidates, the Apps had really a low level of adoption and most of the users have complained most of time for their unlike User Experiences, functionalities and problems.

Therefore, the launch of the Apps can be considered mostly as a failure, while the entering in the IT landscape of Badgebox, with its new, UpToDate and cool app was representing the right opportunity to re-built in co-creating a new associate app, while combining candidates and associate app under the same umbrella is still a topic under discussion. In the logic of technology enhancing process, a new app containing all the features related to associate management represents a good lock in for clients when selling the Adecco services and makes the life on an Adecco worker easier.

The objective for the long term is adding step by step all the features and section that till today has been available on the Adecco.it private portal and moving them to the App, that had been branded as Adecco Mywallet, since it represents what the associate need to have when working with Adecco.

The idea is going being the initial purpose of Badgebox for Time Capturing, it is become the agenda, the communication tool and source of every operating information for the people working, underlining that those would be easily accessible via smartphone and at any time (mention that system in the weekend are down and none can access)

2.1.3   Anticipate the Invoicing

Adecco is an industry high regulated since it business is contracting people for its clients and Italy is of the most complex countries where to hire a person. Thus, its grow and evolution since the birth of Adecco Italia spa has been influenced a lot by the several government that have changed during the last 20 years, due to the instability of politics parties. For this reason, many efforts are spent on the business side to learn and govern the new laws in order to provide the best service and on the other side, in the back office functions a lot of time has been spent on the changes of processes and therefore of IT applications.

In particular the last implementing authority has deeply impacted the way of operating for the Staffing companies, on different aspects: one regarded the limits of contract that person can have with Adecco before being offered a long-term contract and the other one the new electronic invoice and new monthly deadline to pay the associates.

In fact, the law regulates the limit date within a staffing company can pay its associates, which till the 2018 have been the 13th of the next month, so if somebody worked the

whole month of June, he was supposed to receive its wage before the 13th of July. On the payroll amount is also based the invoice to emit to clients, when of the two due dates is change also the other one must adjust.

In 2019 Adecco has to anticipate the date to complete its payroll and invoice therefore its shared service center, which gather data and calculate both of them have to become faster and efficient. The process within the department is starting from the hours worked by the associates on clients site, that have to be multiplied for the hourly pay of the person plus the fee Adecco agreed with the client in the deal. This seems to be easy but the complexity is created with the different collective bargains, the leave time matured and all the other requests related to leave management that a person has the right to use. However, this is not the room of discussion for these details, since the real bottleneck of the whole process is the way of communication of the hours worked. In most of the cases clients sent to Adecco the timesheet, the documents of the time tracking of clock in and clock out, only after the end of the month, causing a rump up of the workload in the first week of each month to produce payroll of around 50000 associates. If this number looks big, we have to consider that each person can have more than one contract in one month, for this reason in the shared service center generally they speak about contracts rather than workers, because each contract follows its own process even when related to the same person.

Going back the way of communication, there are many ways to track the timesheets of associates and in Adecco there are many, that will be explained later, but still the problem is the timing of the information exchange. Since the demand of payrolls and invoice can be assumed as constant or at least not influent, the shared service center has to deal with peaks for 10 days a month, since most of the time is spent waiting for information and preparing semi-processed documents to speed up the process when the information comes.

This strong dependence on clients' inputs has shaped the Operating Model of the SSC which works with a core team of 70 people plus contractors for the peaks that can reach 35 people, for a total 105 operating team during the peak. Nevertheless, the augmented capacity the whole team does extra time and works during the weekend and holidays to close the process within the regulatory date, a situation that has gone along since many years.

2.1.4 A single tool for Time Capturing

As mentioned in the previous character, Adecco has used different ways and tools to track the hours worked by its associates spread across the country. When I arrived in the company and I was asked to work on this project the pictures were: time capturing was divided into two main categories, electronic capturing and non-electronic capturing.

| CATEGORY		N. CLIENTS	N. WORKERS
VOS (Standard Time Variation)		3.360	9147
WEB (Web Clocking)		1.148	4.907
BADGE		377	11.258
EXCEL UPLOAD		164	8.777
TV (Virtual Device – Adecco App)		128	657
EDI (Electronic Data Interchange)		48	1.338
Total ETC (Electronic Time Capturing)*		**5.225 (48%)**	**36.084 (56%)**
HARD COPY CLIENT PRINT	Month-end	3.940	21.691
	Fortnightly	130	1.072
	Weed-end	74	253
HARD COPY ADECCO FORM	Month-end	762	2.397
	Fortnightly	15	19
	Week-end	663	3.060
Total NON ETC (Not Electronic Time Capturing)		**5.670 (52%)**	**28929 (44%)**
TOTAL		8.947	65.014

*All ETC need rework
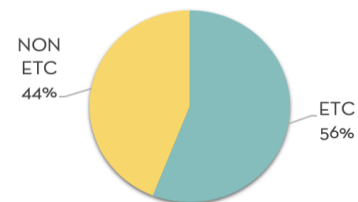
Figure n. 15 Adecco Italy Time Capturing Overview

On average, since every month Adecco's clients changes and also associates changes, the percentage was 56% electronic and 44% non-electronic as in the pie chart in figure n.15. What does this split mean? We have to go into the details of these two worlds.

The Electronic time capturing is composed by many tools that can be listed as:

1. Time Capturing Devices, which are owned by Adecco and were installed on clients site at the beginning of the contract. Historically there were placed when the clients had a consistent dimension, so that the associates supposed to work there were 10 at least and the duration of the contract was more than 6 months. These devices work with IDs or Badges, are typically linked to production sites and they record and transmit data to the SSC through routine call via phone connection. Their advantages are being solid presence and working assurance on clients site with almost no maintenance, they send data on a daily basis to the Adecco SSC but their disadvantages are related to immobilization costs and Telco operator cost. They also become obsolete fast and presented failures that the local Adecco branch has to resolve by itself, wasting time and annoying the client.

2. Excel Upload, in this case clients track timesheet with their own system and send to Adecco an Excel file with all the data necessary to process Payroll and Invoices.

3. EDI or Electronic Data Interface, here the clients require the Associates to time track as its employees and then Adecco has an interfaces with the clients system to download the data needed.

4. WTC or Web Time Capturing, this tool is mainly adopted by the Office Branches of Adecco, meaning that they provide mostly Office employees services, therefore associates have daily access to a laptop and they can record their timesheet via a web tool.

5. VOS or "Variazione orario Standard", this is the best tool but unfortunately difficult to implement and rarely adopted then, because it assumes that an associates performs every day the same hours quantity and consider these as default, it works in the opposite way, instead of recording you arrival time and exit time you have to input the changes of the timesheet, which is send and processed with a default amount, agreed in the contract.

6. Adecco Mobile App, the company developed a Mobile App with many function as mentioned before, one of these is allowing associates to clock in and clock out with geolocalisation when arriving at your workplace. The App is directly interfaced with the ERP, as a consequence all the data are available in any moment to be processed by the SSC.

Even though large clients are expected to be all on electronic time capturing, some of the largest are still using old methodologies, comprehending paper time sheets, which represents a limit for the SSC. In fact, the non-electronic time capturing is all paper sheet that have a long, time consuming and problematic process. First of all, their limit is that clients fill these documents and send them to the Adecco Branch, but since they have to send it all at once they have to wait for the end of the period, in this case a week, two weeks or the month. Due to this the SSC have to process them wall together when they arrive, in addition clients are clients, you can't expect them to be always in time.

2.1.5   Eliminate paper

Continuing the point above, it is clear the huge amount of paper still used to exchange information, something that in 2018 was considered as unacceptable anymore. This has origin in the first contracts at the beginning of 2000 when digitalization was still far away, but clients and even Adecco got used to this, resulting in a complex change management.

Imagine that first on clients site it might be that still some timesheets are completed on paper, those are then scanned and transform in electronic format, sent to the Branch, which prints them to scan them again and are imported into the Adecco system, that once arrived in the SSC could be printed another time. This is not only a paper wasting process, but it is also complex, time consuming for both clients and Adecco people, and it is not a reliable source of information. The experience shows paper timesheet in many different formats, incomplete and sometimes even missing.

Targeting paper would have been a quick win on many aspects, reducing the 20000 paper sheet per month would have result in visible goal, allowing data to be processed before the end of the month by anticipating its arrival. This would have result in a considerable increase in productivity both in the SSC and in the Branch.

2.1.6   Create efficiencies within the SSC

The Grow Together program is performed with different parallel project tackling different departments across the Adecco organization, since the Back-Office functions are not revenue generating activities, one the first objectives were set in the Shared Service Center. In the last year it has seen the birth of strategic function to improve processes, however for year it has result as difficult to transform one of the longest but key activities done by the operators, the time interpretation. As already mentioned, the added value of the SSC is interpreting the timesheets of associates, following the regulations of the collective bargains and of local law, to calculate the wage for the duration of the job, that could vary from days to years and consequently emit the invoice for the client once applied the fee for each contract worked.

To make an example, an associate worked for a week for a client, with a total of 40h + 1h extra time, he is part of the metalworker's collective bargains, which means his hourly pay is 15€/h and extra times are paid 20% more. The computation of the paycheck will be 40*15 + 1*(15+15*0,2) = 618 €.

This is the amount that the associate will see at the end of the month when paid, while the invoice to client would be the paycheck plus the percentage of the fee. Assuming a 15% fee the final invoice would be of 618+618*0,15 = 710,7€. Here we have to underline that the total cost of hiring a person and the its wage is completely paid by the client.

This job is done every day in the SSC hundreds of times, they master it but with the evolution of technology some options were born in the market that are capable to do this automatically. In fact, it is a crucial function to make Adecco run the business and emit the correct invoices, but the process has a really low added value for a human since it doesn't require much effort. The emerging startups instead are proposing user friendly tools, with really low running costs and reliable algorithms for the calculations, since they are flexible and able to scale up on large volume in most of the cases. While the SSC till today has used obsolete tools, that requires a lot of maintenance and were not built with the latest technologies, such as Machine Learning and Data Analytics.

2.1.7   Software obsolecence

The amortized software, put in place many years ago do not present sometime an evident cost saving in substituting them, it's rather seen as in investment for the future. In fact, most of the times a renewal process of the application should not be driven by cost, it must be considered as a booster of the activities and as capable of freeing workload on people's shoulders, since they empower the team in general by being faster, easier to use, adopt and has many new useful features.

The roll out is for sure time consuming for the IT team, it might require the engagement of external consultants, which are very expensive, but they cut the cost of running and maintenance of an old application, usually slow and with many problems that stops the business.

This was only part of the advantages, we have to mention the importance of APIs that in all the latest software were built in, to facilitate the exchange of information between two systems without the presence of a custom integration.

Application Programming interfaces are the basis to set up a digital company, they allow system to talk to each other quickly and the element to scale up rapidly. Nowadays multinationals are struggling with their data, since they do have stored a lot, but they do not know still how to leverage them, in many cases due to expensive project to gather and analyses them with data warehouses and new tools to create dashboards.

2.1.8 24/7 availability of data

What seen before leading us to the final objective of the project I was responsible for, the availability of data. Before we have looked only at the importance on the internal use of data, to create and control KPIs, to save time and effort, create new dashboard to forecast the revenues and costs fluctuations. However, another important topic is exposing data to the external environment, for example clients and for Adecco also its associates.

It is widely known that we are moving towards are hyper connect and digital interactive society, where instant availability of information, metrics and KPI can really make the difference in an organization strategy. However, some businesses move very fast and some other not, but from a multinational like Adecco, it is expected the best service in the market also in terms of digital channels and tools. Till now the company has provided these services in many ways, the most common are weekly or monthly reports that require a lot of effort and especially lots of customization, draining useful time to IT and Finance departments. Adecco also provide access to online private pages for clients, where they could see and go through records of their employees, the problem is that they were not synchronized in real time, they work on a certain time span.

Facing new requirements, Adecco decided to push harder into the direction of 24/7 availability on data, especially from any type of device, since mobiles are clearly the most used tool by middle management to communicate also with corporate tools. The best way to do that is starting leveraging applications that can easily give access to clients through an app, integrate and aggregate data with simple API to let clients control with a single dashboard the performances of and requests from their employees.

The case of time capturing here is crucial, it indicates the actual number of employees working in the clients site, see their average working times, control leave request and calculate Labor cost and productivity overall. On the other side, Adecco can leverage data to create a dashboard for the Staffing Business Unit top management to measure business performance for areas, revenues, margin and number of placement/new contracts per day in every second.

2.1.9   The Vendor Selection going on the Market

In 2018 the Head of IT (CIO) for Italy, Eastern Europe and MENA countries was Erika Graziuso, who joined the Group in November 2017 and as one of her targets set the selection and launch of new digital initiatives developed by startups, believing that buying certain products will have been easier than renewing the already in use ones.

Counting on her expertise she started looking at the market of time capturing and time interpretation separately, since the main issue presented to her was digitalizing and automating some of the processes done within the SSC in Italy, considering also the actual situation in Eastern Europe where all the Back Office activities were done manually, on spreadsheets and so on, the new solution should have the capability of being scaled on other countries, to benefit from expertise and trust.

The Startup market is flourishing in every sector, the results of the search started to arrive immediately, but basically the focus was given to two main competitors, which presented very two different tools, team, history and approach to the project.

1. BadgeBox came up on side as an early born platform solution, built in agile, in a truly startup mode and with eager to grow team, ambitious and willing to risk together with Adecco on a project that was at the beginning far beyond their capability and experience
2. HR Studio instead approached Adecco in a business standard way of relationship, setting up a more likely vendor-clients relationship rather than a partnership, they were not keen to pilot and to explore and their tool was not based on the latest technologies, it was more stable but static one.

2.2 Badgebox srl

Figure n. 16 Badgebox Logo

In the end BadgeBox was chosen for many different factors in terms of technology and approach, that paid back the trust given in the following months.

2.2.1   BadgeBox product

BadgeBox is the cloud and cross-platform management software suitable for all types of businesses. It is developed by a group of young professionals in Rome, it distinguishes by a high specialization in the field of web and mobile software development.

The team, after an in-depth analysis of the needs and problems of HR managers, have developed BadgeBox. In just 2 years it has been adopted by over 10,000 companies and

boasts more than 50,000 active users per day. Thanks to the multiple functions and the simple and intuitive interface, BadgeBox is the ideal solution for any type of company and size. From the big corporation to the small startup, every business can benefit from the enormous potential of our product.

2.2.2 Management for Your Company

BadgeBox simplifies business management, increases employee productivity and improves performance. It is easy to implement thanks to its Software as a Service technology and can immediately start giving benefits.

Some of the key advantages are:

- ✓ Check-in and check-out of staff from mobile and desktop
- ✓ Vacation management, permits and overtime
- ✓ Generation of timesheets, invoices and work reports
- ✓ All in cloud and cross-platform, with online chat support

BadgeBox is an HR app designed for mobile and desktop. The app, was born to help, saving time to freelancers and companies making possible to manage daily tasks quickly and easily, related to employee management. With its evolution and adaptation to SME (Small Medium Enterprises), thanks to BadgeBox, employers will be able to manage attendance data and overtime, create timesheets on the go, track activities, projects and a lot more.

BadgeBox allows people to:

- Keep track of the time spent for each job, minute per minute
- Register your work locations thanks to GPS system
- Manage work activities, create To-Do lists, mark and store the finished ones
- Generate invoices and track their deadlines
- Organize appointments, events and sync with your Google calendar
- Monitor the performance and maximize the profits of your activities
- Upload and access your files wherever you are, in maximum security
- Clock-in / out using also with Apple Watch [10]

With BadgeBox, companies and their employees will be able to:

- Mobile clock-in and clock-out with the possibility of tracking punch location via GPS (as an optional feature if enabled by employer and employee)
- Create timesheets
- Submit vacation and day-off requests
- Track work time, projects and activities
- Send and review holiday and time-off requests
- Calculate overtime rates

[10] Source: Badgebox website

- Manage invoice and accounting process
- Track costs and revenues for each project and activity
- Share in cloud files and data with your colleagues

They sell BadgeBox promoting especially the following benefits, the ones also Adecco will see and was looking for:

- Improve data accuracy
- Eliminate paperwork and go green
- Reduce expenses
- Save time
- Have access to all data anytime from anywhere

Figure n. 16 Badgebox Products

2.2.3 Artificial Intelligence in HR

In 2018 the Startup also implemented BadgeBot, the BadgeBox chatbot that performs tasks and operations for you.

The company in fact, really tries to always adopt the latest technology available in the market, from Smart Watches to bots, resulting in being always ahead of the competition.

The capabilities of BadgeBot:

- Data Analysis & Data Mining
- Machine Learning via Natural Language Processing
- Automation & Prediction

With BadgeBot, managing your business is even easier and more immediate. It is developed to be friendly and easy to find, it born to be incorporated into the most popular messaging Apps, like Facebook Messenger, Telegram, Skype, Slack and Whatsapp is going to be implemented soon.

The idea is to chat directly to the bot but texting, it is able to recognize if you have arrived to your workplace, if you are leaving, planning a leave and more.

They can be considered one of the benchmarks of innovation, since they are working closely with Innovation Hubs, like the one in Università di Tor Vergata di Roma, where they have partnered with student with whom they have built the artificial intelligence and the bot.

Last there was also a cultural advantage, at the time they have never worked with an organization with the size and complexity of Adecco, it would have been a challenge but an investment at the same time. They would have increased knowledge and brand image in few months.

Figure n. 17 Badgebox example

2.3 Project Roll Out

When launching a new initiative or project within the Group, some procedures have to be followed and for this standard were set up globally. To make a long story short, there are some non-negotiables that have to respected, in general a Business Case has to be submitted to ensure a return on investment is achieved in one/two years and that the business can benefit from the new application or enhancement. The paper also contains information on the agreed timelines, effort of the resources involved, risks, integration, in the end it mostly summaries all the activities.

The contract stipulated with BadgeBox was really appealing to Adecco, since the Startup was willing to invest together with us to learn rather than earn, because they have never worked with such a big and complex client. Unfortunately, this is not the room to discuss

the financials, what we can go through instead is the overall set up of the platform roll out.

2.3.1   Team set up

Basically, the stakeholders heavily impacted here were three departments: IT, Operations and the SSC or Hub. Therefore, the three must be represented within the team to guarantee to correct implementation and care on their areas. Within the three the effort required was also different for this reason the number of representatives was different. In the IT we started as three people: Matteo the Enterprise Architect, Valerio the External Project Manager and I as Project Support. From the Operation there was Mario, National Controller that was the point of contact for both Finance and Operations and then from the SSC Francesco, the Continuous Improvement Manager.

There were of course other characters involved from the department, for example Alessandro from the Grow Together team and Fabio One of the internal developers. We don't have to forget the effort from the BadgeBox team, which put on the Project it's CEO and Founder Andrea and the Product Manager Bojana.

2.3.2   Timeline and Milestones

The project was split in two parallel projects that has to merge at a certain point of the development.

The first one was regarding the Time Capturing and Associates Management while the second one was the Time Interpretation One. This choice was done one the basis that those two functionalities can be run independently thank to the BadgeBox Platform, that was built as the most flexible possible.

In fact, what could be done on it is recording the timesheet and then elaborated through the time interpretation engine, the timesheet can be only captured and elaborated by the SSC or timesheets can be tracked in other ways and then interpreted through the BadgeBox engine. Beyond this, the splitting was also helping the implementation since they can be rolled as two parallel projects and that were involving and demanding different efforts from the team.

The Time Capturing has a strong focus on operations, candidate management and IT and the Time Capturing interests more the IT and SSC processes. Following these thoughts, the two projects have been taken on in parallel but still by the same team.

However, the Time Capturing has a priority between the two, because the estimation of impact made on the operation was higher and it would have created many efficiencies and cut expenses related to paper storage and also shorten processes with the SSC. This is fundamental in the optic of a growing company and especially when, the service that clients are asking for, is the payrolls for their employees that starts from the timesheet generation.

The Time interpretation has always been seen as something ambitious by the Finance team we have to say, thus it was considered more as a nice to have, while the IT believed they were underestimating the benefits. The change management instead will be the greatest difficulty.

The Time Capturing was first divided into milestones to be implemented, the approach was not a waterfall one since they were concatenated, but to clear communicate and enhance the adoption we tried to roll them out one by one.

Here is the list in order of features or products:

1. BadgeBox Station
2. BadgeBox App
3. Messages
4. Leave Management
5. Access to BadgeBox for Branches
6. Access to BadgeBox for Clients
7. Documents
8. Expenses Claims

Let's go through the details of each feature and then associating it to a timeline.

1. The BB Station is a physical device (tablet) that is installed in the clients site where associates can track their hours worked. It is an expensive and uncomfortable solutions for both Adecco and its clients, but still some prefer to have due to the structure of the plants many times or security reasons.
   It was the first milestone to achieve and it was supposed to start in mid-September and to continue during the time, as you can see in the light blue bar, it is mentioned to Roll it out for all the new clients from that onwards in the green bars.
2. The BadgeBox App is a Mobile App available for every Associate on the Stores and that once signed in allows the person to clock in and clock out with two clicks, guaranteeing to clients their presence thanks to a geo-localization system.
   We initially planned to launch it in mid-October and to start substituting all the other Time Capturing tools from that point, as you can see in the red bars, tackling Web Clocking, Virtual Device and Electronic device exchange. The same here, as with the Badgebox Station, starting with the App for all the new clients always in the green bars.
3. The App also enables the next features which is the messages. In fact, the platform has already embedded a messaging system that allows the employer and the HR or Project Manager to communicate easily and instantly with the associates. This solves many privacy and data protection issues related to communication, that often is based on SMS, WhatsApp and other platforms still not providing a B2B offer to guarantee segregation. Furthermore, the App works as a normal messaging platform to which we are all costumed to and presents notifications that permits instant exchange of information, especially related to shift and activities to perform.

4. Another important element is the Leave Management functionalities that transform a consistent amount of manual processes done within the branch into an automated process. The requests for an absence or a leave where still based on informal and unstructured channels, information can be easily lost or misunderstood and there was no tracking.

   Giving access to the App allows associates to ask for a leave whenever they want and wherever they want, the branch and the clients responsible (or approver) receives immediately the notification, consequently can approve or deny it.

   A lot of efficiencies are created, the process is fully automated, goes directly into the payrolls and the requests are controlled thanks to cut off and counters.

5. - 6. To reach the full adoption and provide also a user-friendly experience to both employees and clients the Access to BadgeBox has to be given.

   It seems to be easy to say, but in reality, the complexity comes when you consider it as a single sign on or SSO for both branches and clients.

   The objective is to make Adecco employees able to log in, check timesheet, approve requests, send messages and modify some set up or time records, but really the fast possible and the fewest times possible. While for clients it is fundamental to give them a dashboard for their employees, to see how they are performing, who is in and out, control the invoices, by logging in from the Adecco website.

7. When setting up the plan and the features to release, we have realized that the new App was going to have most of the main functionalities that the old Adecco App had. Even if the adoption was low, you have to guarantee a certain level to which associates were accustomed to, then you can't have decommissioned it without having replaced it at a 100%.

   We recognize as one the most important features, the documents repository regarding the associate contract and the monthly salary, that are usually checked. The documents have to be duplicated into the new App and after that the old once can be decommissioned, assuming all the other functionalities have seen the same process.

8. The last functionality is the expenses claims, which is not the main problems within the Adecco branch since it is linked to few but very important and strategic clients. In order to keep a high service level, branches have to run a lot of time consuming activities because it is a full manual process end to end.

   Even though this is not affecting all the branches, the once impacted admits that on average an employee wastes from 1 to 2 days a month to collect the receipt, translate them into digital request, store them and then send it to the HQ. Moreover, the time material consumption there is also the cost of the transportation and storage. To summarize this is a nice to be detail but still one of the worst into the Adecco back office administration. The App instead allows the associates to scan with the mobile the receipts, upload into the App, fill the request and send it to the Branch and the clients in few minutes. This automation also creates an opportunity to review the process, discovering that the regulation

has changed and physical receipts are no longer needed for financial controls, saving money, paper and time.

Last bars that haven't been mentioned are the yellow once, related to Time Interpretation that we will explore later.

Following the first timeline that was submitted to the management team as in figure n.18 let's see how to implement the 8 points above.
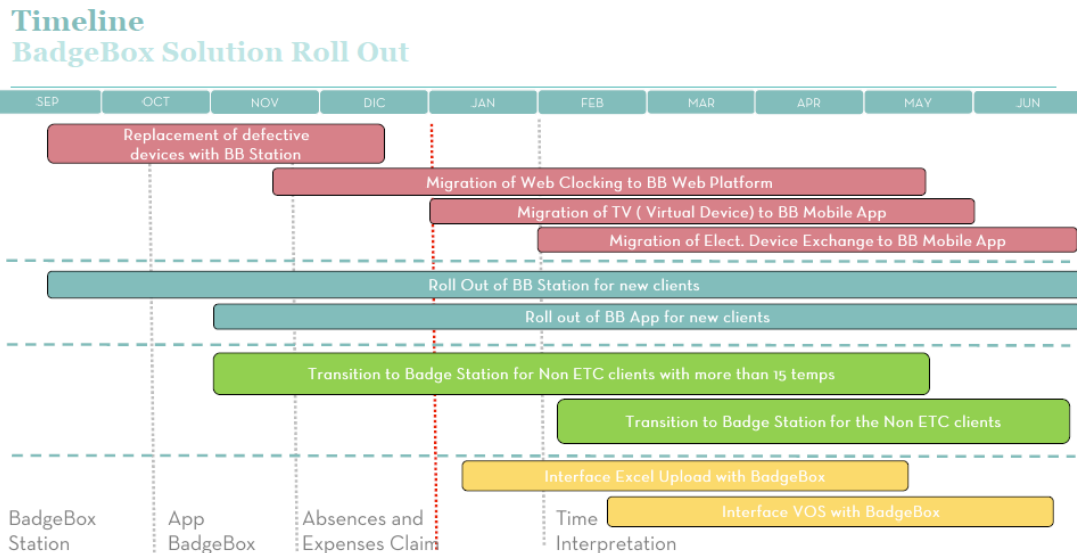

Figure n. 18 Badgebox Project Timeline

To summaries the plan, first we wanted to start with the Station in September, launching it on new clients and in parallel starting replacing the old time capturing devices that were defective. Then we wanted to launch the App in November on all the new small clients and substituting the paper timesheets, the old Adecco App (TV) and the EDI. Talking about functionalities, we aimed to begin with the absences in December and Expenses claims in the end of the year. Separate from these Time Interpretation in February and with it the interface with Excel Upload and VOS, to make Badgebox the aggregator and open Time Interpretation to all the clients. The description of the project will follow this separation into Time Capturing and Time Interpretation.
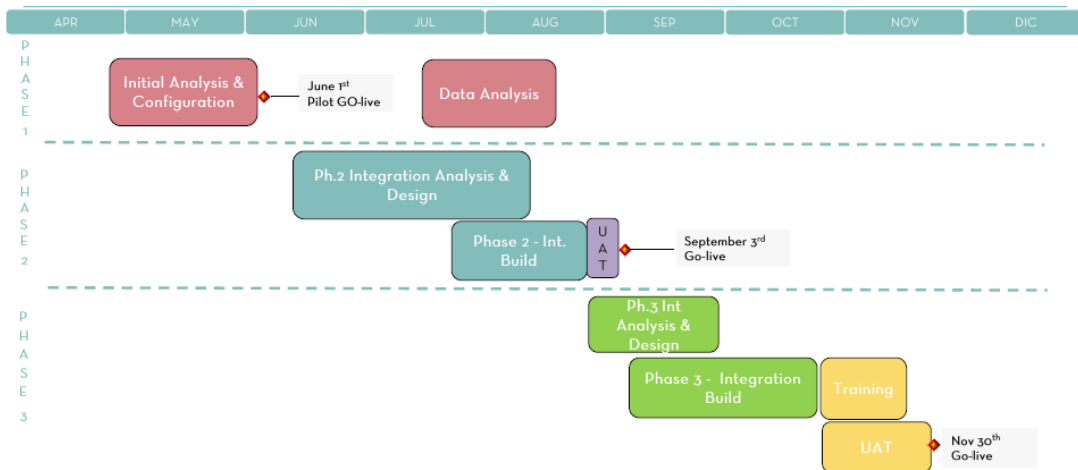
Figure n. 19 Badgebox Technical Timeline

Another important timeline to mention was the one reported above in image n.19, more related to technical development and integrations, necessary to launch the platform and all its functionalities. In fact, as we will see later, some integrations must be set up to make thing run from the first moment, otherwise we should have done daily or weekly exports manually from a system to another, slowing down the implementation.

This technical part was divided in three phases accordingly to the designed made by Matteo the Architect, in which during the first phase underlined in red there is an initial configuration and a small pilot to start testing. In the second phase, the most important one, a show stopper for the go-live with the Badgebox Station, represented in blue. The last point was about integrating the export of data beyond the simple timesheet, it was also comprehending the absence management and expenses claims management that later on would have been still performed with manual exports, because the efforts of the team working on these integrations was on other priorities.

To explain a little bit more the technical implementation and the phases, on the left (image n. 20) is reported a screenshot of the designed integrations among the system involved, in this case for the user authentication, the initial Login.
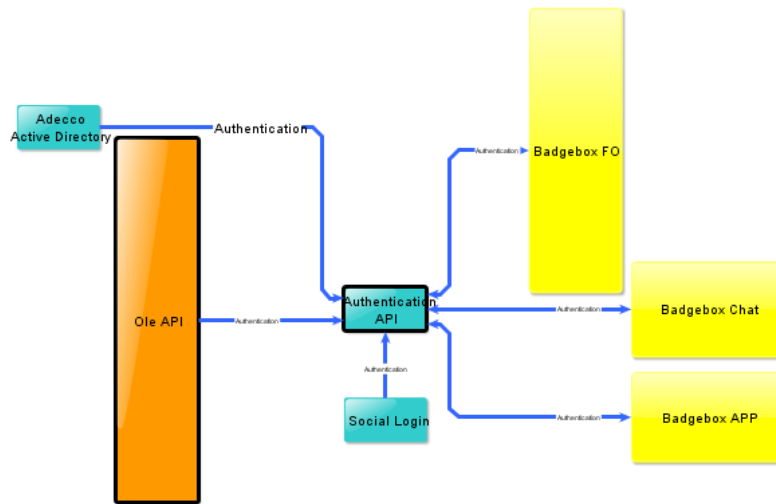
Figure n. 20 Badgebox Interfaces Architecture

We can see how Badgebox in the yellow boxes has to interrogate the Authentication API created for Ole, where Badgebox can get the information from Ole to understand if the user is already present and active in Ole, to let him login with the same username and password, we can this SSO, Single Sign On. To make it even more easier, it is accessing to multiple platform thanks to a single initial profile setting.
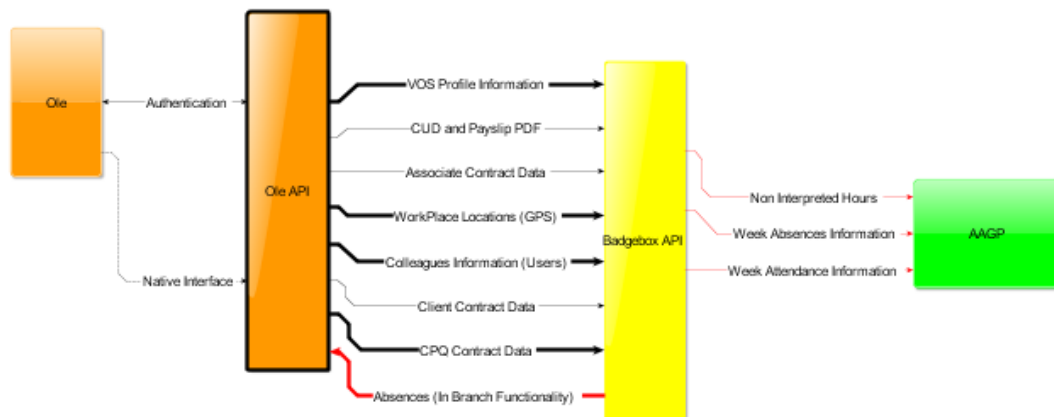

Figure n. 21 Badgebox Interfaces Integrations

Above, in chart n.21, is reported another crucial part of the integration that link Badgebox to one of the legacy tool to which the whole Time Capturing is dependent from in Italy, AAGP. What happens here is allowing Badgebox to send the right data to AAGP, because once they sent into it the basically follow the billing a payroll process with no validation. Therefore, the data that Badgebox records must be true and related to associates that have an active contract with Adecco, this is where it gets them from, the source is a web service built for Ole.

2.4 Time Capturing

2.4.1 Pilot phase

Before developing any type of solution or at least start localizing any application a pilot must be performed for many different reasons. The Agile or Lean methodologies have now spread in every industry and department, but when going back to the basics, it is a simple way of doing a test-develop-improve and reiterate process. This cycle starts from the piloting and pivoting phase.

We have to say that one of the five values on which Adecco is built on is entrepreneurship. This is translated and proved by attitudes of most of the employees, going from sales to IT. In fact, it is known within the organization that there are many chances to launch new business and demonstrate capabilities and talents, the same happens when the company is trying to innovate in terms of technology. Nowadays entrepreneurship is piloting and pivoting at a 100%, therefore is the starting for a new project. For instance, when we decided to roll out BadgeBox in Italy, the first step was evaluating the idea and ask feedback from both the operations and the candidates. Together with Financial Controller, we selected 10 branches that were the most to be the early adopters. To make the things easier we tried to select them the closest possible among each other, proximity is key in initial phases. Since Mario io based in Rome and also BadgeBox, the branches identified were in the area nearby.

The number was also guarantee enough associates to be reached to validate the solution and at the same time the number was easy to control. We have established the duration time for a month, in our opinion was enough to reach a significant adoption and usage.

The Pilot was already something that BadgeBox already presented within its assets, they have built a in-house app dedicated to this purpose and to serve as a sales tool. Already during one of their first presentation in front in the CIO's office, Andrea the BadgeBox CEO mentioned this Piloting App already available on the Stores. He was mostly using it a as sales support tool to walk the prospect through the tool and show the functionalities live and then it was also made for online customer who wanted to test the tool before buying the SAAS Solution. In the specific case of Adecco this App revealed to be the perfect environment to test and pilot on the associates without requiring any cost of coding or configuration from BadgeBox and therefore no added cost for Adecco.

Finally, we decided to launch and during the first week of September the pilot officially kicked off. The timesheet collected where not used as the official ones, the data were considered as a duplicate of the real ones still tracked by others Capturing methods. Running the things in parallel would have served as benchmark among the two in terms of quality and adoption. Quality will be more and more a point to focus on during the project, due to its magnitude and impact. Imagine the consequences of several incorrect timesheet and therefore both invoices and payrolls, both in terms of positive or negative asides.

As mentioned earlier the branches piloted were 10, 9 were using the BadgeBox App and One was using the BadgeBox Station, that was specifically installed in a client site. September went on well, data were constantly coming in and at the end of the month the results were pretty good. The only one problem that have emerged was the accuracy in the associate activities.

In fact, they were forgetting far too many times to clock in/out due to the double systems, but it was easy to solve, once officially launched the App and be used as the source for the payroll everybody will have made sure to sue the App correctly at a 100%. Till they would have seen it as a test, they didn't care much about it.

2.4.2   BagdeBox Station

By the time that the pilot numbers were turning right, and the feedbacks were positive we started creating the interfaces between BadgeBox and our Middle and Back Office systems. We wanted to be ready to scale up rapidly once officially approved the solution. However, for the App, according to Andrea, it would have taken more time to develop and adapt to Adecco needs while the launch of the Badge Station would have been easier.

The Station is a physical device, composed by a tablet and its case, that is attached to a wall or a desk close, inside or outside the clients' sites or plants. This works easily as a standard clock in device, you arrive at work and with a badge or other type of ID you can perform the clock in and out. However, this tablet is technology advanced and works with an OCR scanner to recognize the ID just showing it in front of the camera and you can type the alphanumeric code otherwise. It is also connected to internet, in order to make the time capturing in real time by uploading constantly the data on the platform.

For the specific requirements of our processes, associates are associated to a primary key to be recognized and in Italy is the Social Security Number. Usually company print a dedicated badge to their employees that they can use to access the buildings and clock in/out, but this requires time and effort. What our architect thought was to find an ID easy to read for our associates to avoid the cost of the printed badges and here came the idea of using the social security number as alternative. The idea was genial, we asked immediately to BadgeBox to modify the Software and we launched the Station with this new capability. Clients and associates were both enthusiastic and also BadgeBox started using it as a standard functionality also with other clients.

The Station is a very good and nice solution, it is easy to manage and control, the connection to internet allows to monitor and update it from remote but still it requires at least once a visit into clients site, that many times creates security and privacy issues that needed to be sorted out.
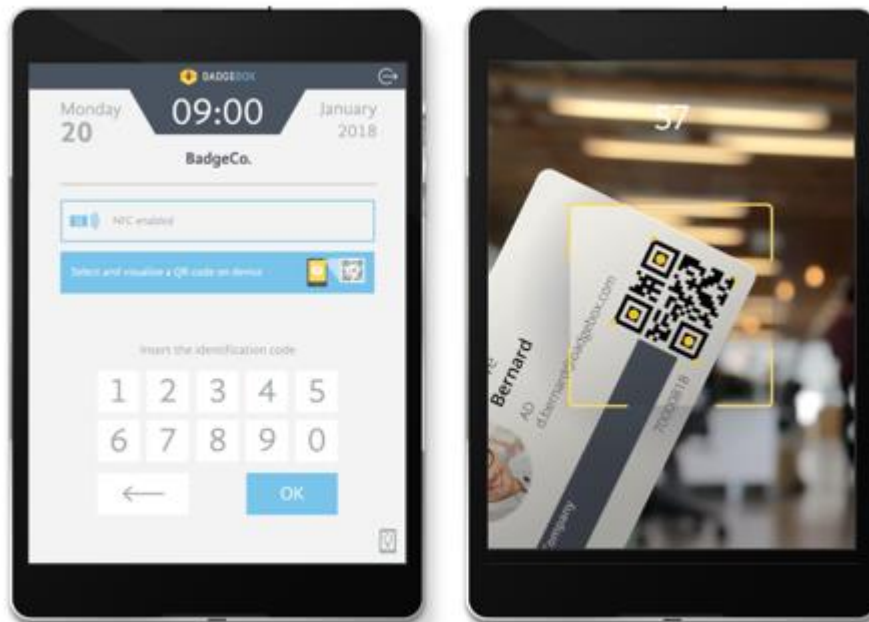
Figure n. 22 Example of Badgebox Station.

Monitoring has always been a focal point during the project, especially at the beginning where the team is seeking for results and proof of concept. For this reason, during the Badgebox Station launch, in our weekly calls we were always being update by Andrea on the number of device installed and we were asking for feedbacks from both client and branch. Into this also Mario was speaking in voice of the operations but soon I realize we were needing something easier and quicker to get this information, especially looking at growing numbers.

Imagine we have passes from 5 orders per week up to 25 orders in one shot and we wanted also to place a dogwatch on Badgebox delivery capacity. For this purpose, I asked Andrea to create the first web page where to report these stats as it shown in the below picture n.23. It is reporting the number of Station successfully placed and working and the number of Station in pipeline and on their way. You can also dive into the details where issues are reported or relevant comments, otherwise the traffic light labels help you in understanding what is ok, what is in working and what is not. The branched is mentioned and also the client that in this case is hide for privacy reasons.

Figure n. 23 Badgebox Station Status

2.4.3   BadgeBox App

The strategic vision of Adecco is moving towards digital and mobile friendly solutions, especially via Apps. The choice of still using some physical devices to place into clients' locations was more related to marketing and habits reasons. In fact, Adecco can still count on a device with the brand in the client plant, especially for new ones, to remark its presence and sometimes the Station was required by the clients for security reasons, happens that they need to accurately check the entrance and exit of employees.

Despite these exceptions, the future of time capturing, and associates management is an App, that accordingly to the latest discussions will probably be based on the BadgeBox product.

The App has many advantages since it is free to download and free of charge for any users, rather than the cost is based on storage and developments required, it doesn't require extra cost of maintenance in case of problems, can be updated in any moment, do not need clients permission for most of the enhancements and it is scalable to all the Adecco customers.

The original App from BadgeBox was born with a much broader portfolio of functionalities than the ones Adecco needs in a first place. We could have launched all of them, but the limit were our legacy systems that were not able to support all these data coming from the App, we should have set up a lot of manual exports and risked excessively. It would have not been in lined with the lean methodology and in addition we were counting on young and fast customers, rather on a less technology familiar community.

Adecco is a company that is trying to adopt new technologies and solutions but still is a multinational company, with thousands of clients and important names on the invoices, therefore before implementing a new tool it runs test and controls. This is even more important when it comes to the initial input data that allows the SSC to emit correct invoices and payrolls, even more the payrolls. Already happened in the past of wrong or missed payroll and payment emission to associates, starting a notable class action towards the company for a system failure. Adecco has a really good name and reputation on the market and keeping them high is not easy, technology and so IT team do not want to ruined this hard effort of years due to an application.

For this reason, every new features or development of BadgeBox has been tested before internally by me and my colleagues. After this early test and approval, we go to SSC that is staffed with many temporary People each day to cover the peaks of the demand. They are send by the Milan branch, like all the associates do, they have to track their timesheets, before it was done manually because they are a small team (30 people on average).

On the 16th of January I presented to the Shared Service Center team the new solution and explained the functionalities already available. The App was not available on the App Stores yet and was not fully aware of all the steps that should have been taken to officially post it on the Stores, making it ready for the market. It was really interesting for me dealing with Andrea, the BadgeBox CEO, who, on one side, was basically guiding me through the steps of the launch of an App. On the other side I had my Indian Colleagues from Adecco who are managing the Stores for the company, supporting me. What particular is the controls you have to keep on the Apps launched on the Stores in terms of setting and updates, but for this I was counting on them.

Now the question comes naturally, if an App is not on the Stores how can you get it or download it from nowhere (assuming you don't meet physically the developer)? There are ways to download App which are normal software only programmed for mobile devices. When download an App not from the Stores you see them in a particular format called APK if the OS is Android and called IPA if the OS is Apple. In this the provider created an ad hoc folder on One Drive (the only one cloud storage Adecco employees has access to), uploaded there the App ready to download and we sent the link to the early adopters in the SSC.

We asked to BadgeBox some customization of the Mobile App especially on the Design details, you have to think about marketing and branding when launching this kind of Front Office projects. I call it Front Office because the candidates see it directly in their activities but in Adecco it's a Middle Office Application. Due to this rebranding they had to work for a week, Android is easier to be programmed and it took less time, so we launched it immediately. After a couple of weeks was available the IOs version as well.

We thought that a month would have been enough to gather feedback, assess the accuracy and the customer experience. We also believed that, based on BadgeBox experience, the GPS tracking was not a problem to be turned on. We decided not to use the feature in the first place to better monitor it in a second moment. However, the

problems came out properly when we turned it on. In fact, we haven't seen major issues in using and adopting the App, clear tutorial and a week built designed App made the things easier. When we launched the Location tracking we encountered lack of signal, lack of accuracy, lack of coordination records and more. We were hardly trying to target one by one the outages, working closely with BadgeBox team, to fix them.

We realized that not all the places guarantee a sufficient coverage of network and signal, depending also on the type of device in use and we were imaging the worst case of some clients who has plants in the middle of countryside and mountains, they should use the solution anyhow. First, we decide not to set as necessary the correct GPS record to perform the Clock in and out, this way associates can any track timesheet and then will be up to the branch control the quantity of in compliance and the quantity not. Another driver to this decision was enabling also the ones who do not have access to internet in their workplace and network on their mobiles. We set that in the way a person can even stay a month without connection, one day go the branch and use the branch WIFI to upload all the data into the platform. We had to think about any type of excuse a person can invent to justify missing timesheets.

However, sometimes even with a good connection and GPS working the App was not recognizing the right place and it was classifying the Check in/out as not valid, like if it wasn't not in the acceptable range. It's good to remark that this type of clock in/out with the App work only if the action is performed within a range of 100 meters from the client address. This is an advanced methodology but still has some limits, for example when the clients have a notable size site, with different entrances with different addresses, thus it won't work for everyone. During the coding BadgeBox haven 't thought about this possibility, but still have left the option of adding new address customized into the platform. This way if an entrance is not mapped of Google Maps (because they use their database as main source), maybe it is a new building or in a hidden area, the managers can add manually the location and allow employees to clock in/out.

Nevertheless, it was not working all the time even with the SSC early tester, we added all the entrances on the map since there are four different access point. We understood that it was caused by the accuracy of the GPS that was also related to the Smartphone in use. However, we couldn't ask to our associates to use only the newest smartphones, we had to adjust with a workaround the tracking. Here Andrea had a great idea, using some Data Analysis to better place the pin point on the map and calibrate the radius based on the history of time tracks. In this way there was no matter of type of client or location, the algorithm within BadgeBox servers was automatically performing the fine tuning.

After a couple weeks of development, the release was ready, we implemented it and launched in the last week of January. After few days of testing we were confident the App will have worked well, and it was the time to scale it up to a few branches for a real pilot.

During the test in the SSC was not everything perfectly fixed and the design was still presenting some details to be reviewed. Really important was that some features, when

they have been switched off in the BadgeBox environment, were still working and they could have created some confusion to the user.

I created for the purpose an action log, reported in figure n.23, to track all the requests from the users that we had to work on and adding timelines, owner and description.

ID	Issue	Description	Owner	action	note	impacted systems	due date	status
1	Tasto di conferma poco chiaro	il tick di conferma	Andrea	Aggiungere nuovo tasto di conferma timbratura nella App in modo che sia uiser friendly				closed
2	linkedin/facebook login	se un candidato si	Andrea	Trovata soluzione: / 1 tattica affinche i lavoratori possano usare app BB				closed
3	linkedin/facebook login	se un candidato si	Mirko	Trovata soluzione: / 2 strategica eliminando la App adecco / nota: per i lavoratori che usano questi accessi sono 2% circa degli utenti di Ole light	dipenenza dal marketing per definire cosa trasferire nella nuova App e chiudere definitivamente quella Adecco		Q1 2019	
4	reporting	statistiche epr cap	Andrea	Fornire statistiche di utilizzo della App per timbrature, timbrature effettuate, timbrature correttamente geolocalizzate, lavoratori che non timbrano con fonte Ole' BadgeBox. (**Owner**: Andrea, **Due date**: ASAP)			21. Jan	

Figure n. 23 Action Log

Beyond the mere process issues that the testing app was presenting there were also some design, color and logo to be changed. In this phase I opened a panel of dialogue as well with the Marketing department, which till now has been in charge of the App management. They were already aware of the App launch but didn't know the details and even never seen it. I first presented them the plan and all its capabilities to then finally give them an account where to access and use it like an associate. They overviewed and confirmed that the App was easy to use but it still presents some fake functionalities or switched off and some Font to be changed. What I have learned from the testing is that asking to the most quantity and quality of people possible to try the product, to identify point of fall, bugs and any possible improvements.

When developing a product gathering the needs is probably the most difficult step, because you can have multiple sources of input, but each of them has a different perspective and objective to pursue and you should look for the perfect equilibrium among those nice to have. However, realizing that one feature was fundamental in a later stage could lead to delays and complexity, therefore doing the biggest part at the beginning is the key. This was my task together with Bojana on the BadgeBox side, taking care of the final product to set it up in the right way since the first release, avoiding useless rework.
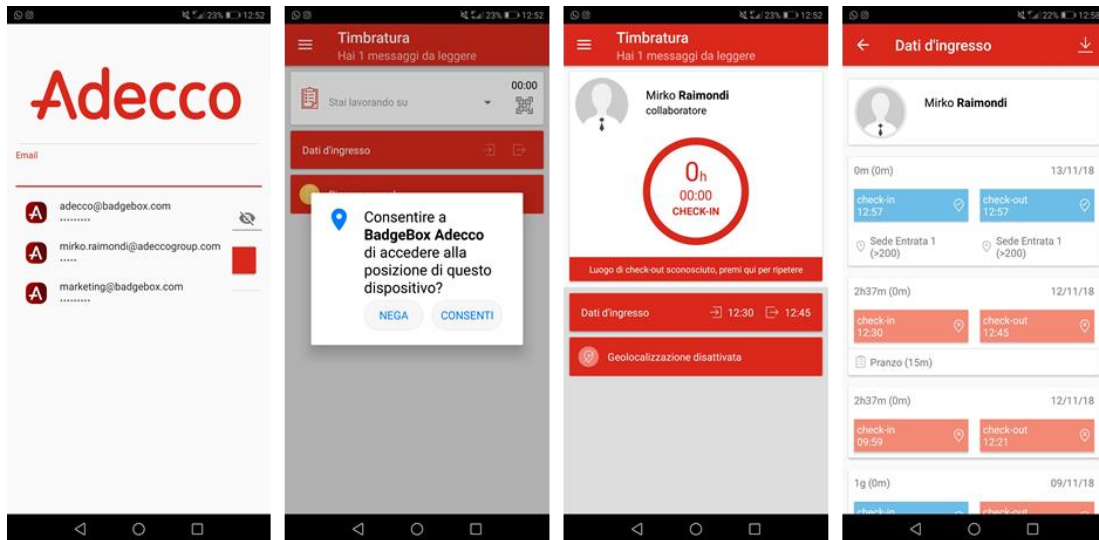
Figure n. 24 Adecco Mywallet App

To the official launch there was only missing the posting on the Stores and the official name, to make it easier as well for the employees to download it and for us to monitor the activities through the Stores analytics. It would have been more complex than expected, it was totally not aware of all the requirements you have to follow to make Android and Apple review and approve your product. In general, for Android, after the submission it can take up to 3 days the final go while for Apple up to 2 weeks, imagine this could really be a possible delay on the overall project. With Android we were more confident that the APK would have been approved easily and it covers around 80% of the target users, in terms of phone operating system, our worries were about IPA and the Apple users. In the moment in which we would have released, we couldn't ask to each associate which phone they have and provide them different processes, they had all to follow the same and make things easier for us.

As I had already mentioned, the publication would have been managed by the Indian team from the technical stand point, I would have taken the official submission and request to the global IT with all the gathering of documents, providing description and all the text to be shown on the Store pages. Andrea from BadgeBox instead would have supported me on the technical and coding if necessary.

I remember this stage as a really learning on the go and I have to thank all the people who had helped me in figuring out what should have been done, the compliance and standards from the Group to be followed and how to complete all the details. In fact, I started filling out some documentation, then I reviewed all with Andrea, to then submit the application into Service Now, the tool where to officially submit the request and make it available to Nitesh on the other side to finally upload the Apps on the Stores. It seemed to be as easy as that, then some data was missing but apparently, we were not speaking the same languages. Andrea was used to his processes of a young lean startup, that goes straight to the point with almost zero steps and procedures, there was Nitesh with all the standards from both the Group and the Stores and then me with very little knowledge and focused on the milestones to be achieved in the shortest way possible.

Soon emails revealed to be limited to communicate, we started having calls to be aligned and speed up the things. More or less it took us a couple of weeks to finalize everything and send the requests to the Stores, this while completing the App to gain some time. First, we went with the Play Store, because the requirements were less strict and then we went with the Apple Store, it has more requirements and information to be provided. In the first week of February the App was finally on the Play Stores available for the Android users and the following week for the IOs users, even if the App was already available we could upload new development and updates in only one day, making online the most recent changes as they were still ongoing.

I discovered apps are very flexible, they can be updated and released in few steps in the Stores, allowing you to continuously develop while already having launched the product, it is timesaving. Going back to the plan, once able to scale up the App we had to promote it in the branches, communicating clearly how to use it, control it and spread it. As mentioned before the App also was necessary for the official launch, together with the Marketing and Legal we approved the Adecco MyWallet name, as it will become the wallet for every Adecco associate.
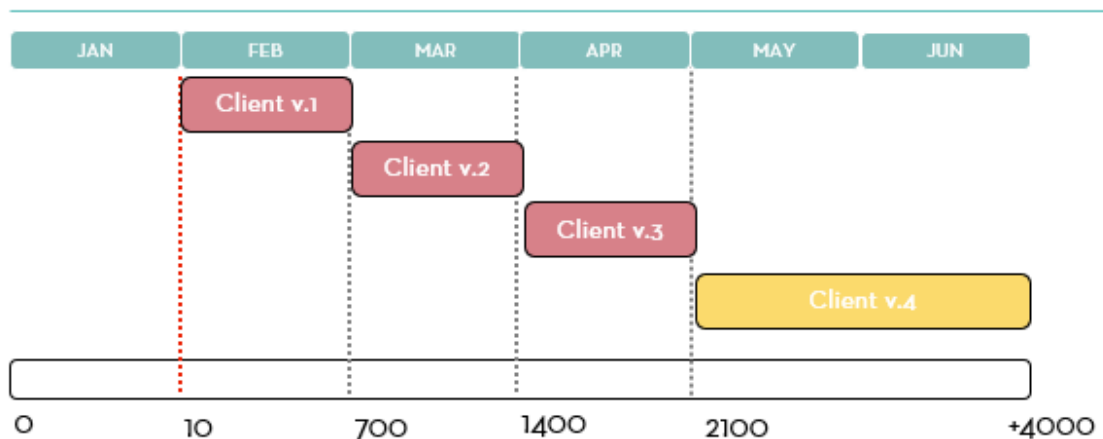

Figure n. 25 Adecco Mywallet App Launch

Here we have to recall another topic previously discussed. The time capturing methods were still a lot based on paper timesheets, from Finance it was clear this was their first target and first method to be replaced with BadgeBox. What I did was identify all the clients and the related branch that was still using paper to report timesheets and then assessing them, weighted on their importance, history and number of associates, to finally divide them into groups.

In the plan was also crucial the timelines of the implementation, we agreed that by then of April half of the timesheets should be already on Digital and so on BadgeBox. On top of this there were also clients not using paper but who can be moved on BadgeBox

platform, we will explore this later. Segmenting clients was not easy, for this I involved both Mario from the Operations and Francesco from the SSC, to discuss and double check the clients. Here, was interesting how I was not knowing a key element of the process, when the timesheets are being interpreted by the operators. I was assuming all the timesheets follow the same step and especially contain the same information but depending on the client they could arrive ready to be processed and invoiced, while other need other extra information given by the client itself added manually.

In fact, there are some clients who are fine with Adecco interpretation and other who really want to control and make sure they are billed the perfect amount to what they have tracked. For this reason, they want to specify if there were some hours tracked that are extra time, leave compensation, not paid, hours bank and so on. This details slightly changed the payrolls and so the invoices, for us this was not a problem it is a simple information to be used during the interpretation, it was the way of communicating those that are not standardized in any way. Most of the cases present some notes added manually by pen on the timesheets, sometimes they come via email or phone calls, and we had to find a way to keep this possibility also within BadgeBox (again a process issue solved by technology).
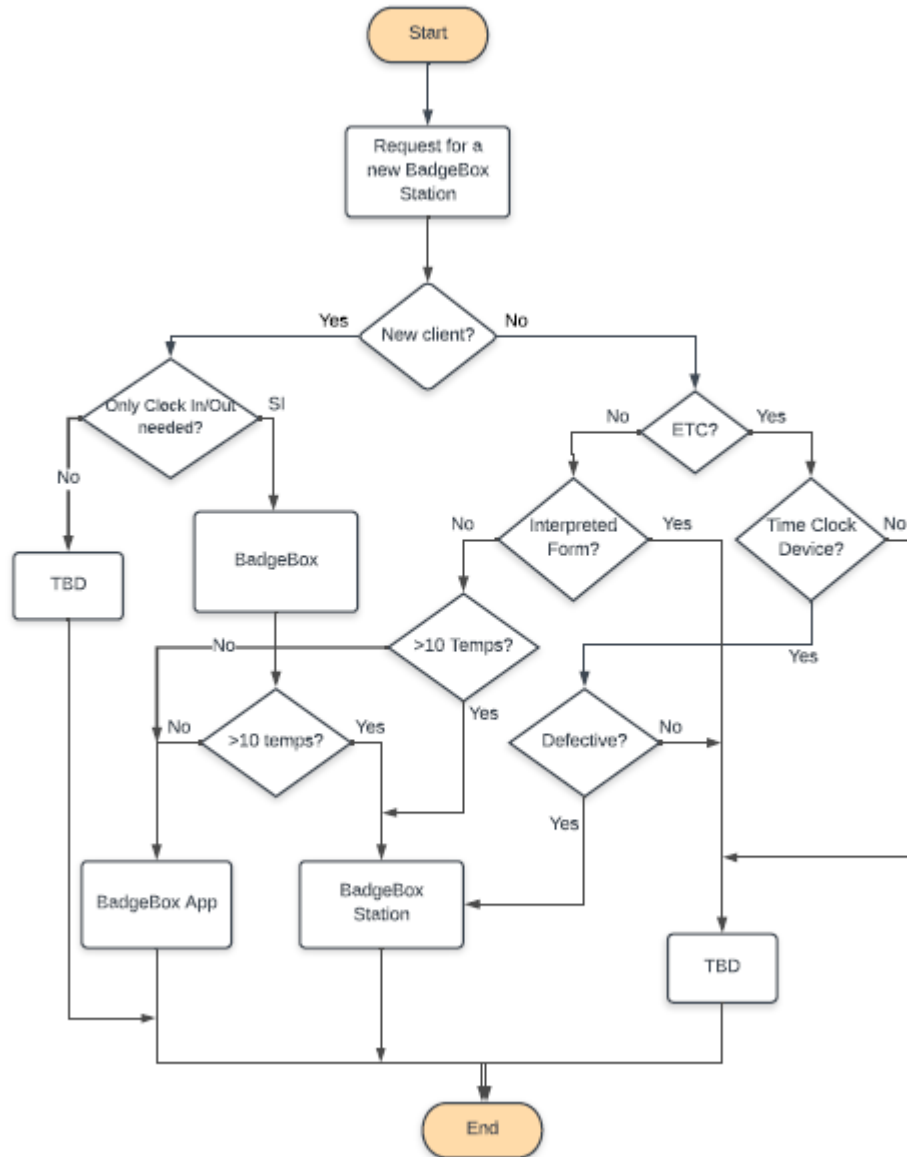
Figure n. 26 Adecco Badgebox Implementation Tree

Above in the chart n.26 is showed how we decided whether to implement Badgebox with the App or Station, accordingly to the strategy we have agreed on,

For this reason, Francesco was saying that they could not be immediately onboard into the platform with the process we have designed, some changes were needed on other systems to track the extra information and we decided to target them in a second moment. In the end we created three groups of paper clients:

a) to be onboard immediately not interpreted
b) to be onboard immediately interpreted
c) clients with extra information

C is referring to what explained just above, A is referring to clients who send paper that needs to be interpreted by the SSC and B the ones who send already interpreted

timesheets that only need a check by the SSC. In terms of number on the 4500 clients on paper this was the segmentation:

a) 2100
b) 400
c) 2100

In practice in 3 months we had to onboard almost half of the clients and the other 3 months the rest, practically speaking 700 clients a month, a hard job for the branches and a real challenge also for BadgeBox. For the launch some training support was missing, to support the three main stakeholders, clients, candidates and branches.

Basically, the branches should have been ready to support the associates in download and usage and also the clients in visualize the time tracks on the Adecco website. Here a piece is missing, when a client has an electronic time Capturing method, Adecco to make him see the timesheets, because at this point are only on Adecco tools, syncs the system with the website to which the Clients have access to. Since those clients were not accessing the website I had to create from scratch the guidelines to be shared and avoid useless activities to our call center.

However, the associates training was the most important one, they have downloaded a new app, access into it and perform activities that before were done manually and with little standard. We also kept under consideration that most of the people are not techy and probably not familiar with Apps, at four hands with BadgeBox we have recorded a video tutorial to explain end to end the new tool. We really went to the basics, being slow, accurate and clear, from the Stores menu to sign out of the Apps, to make them use every functionality with no doubts. The more you prevent the less you would have to sort out and we absolutely didn't want to have a low level of adoption after all the investments done.

A great idea than came from Andrea, who said they have the possibility to set up easily an onboarding welcome email to all the new joiners detailing all the steps necessary with a direct link to the YouTube page where we were posting the dedicated tutorials for them. From the experience of my colleagues within IT, I got that the more you accompany the associates the easier it will be, the mentality should be of the one who is dealing with not a tech expert person, rather a really old fashion worker who cares mostly at his job not as fancy tools. The onboarding email was retrieving the data from the ERP that is constantly communicating the profile joining BadgeBox. Furthermore, not to lose anyone on the way, we set up some follow up emails to the ones that hasn't already signed in yet, to make sure they onboard and not stay out claiming for excuses.

On the branches side Mario was personally contacting the Branch controllers to inform them and giving the target for the client's conversion. They would not have been overcome by volume rather than change management task, if you count that 700 clients a month are targeted, and the branches are 350, it means 2 clients per branch on average but to convince to move on the new solution. Here was the moment where the

Adecco family, as I call it start to prove its sense of collectivity and commitment to the company, because the result was surprising us in the daily basis.

We wanted of course the project to be successful, but we didn't expect to scale up as fast as it was, we were regularly ahead of the target and this thanks to the great job done by the operations. In this process of innovation, I observe there are two possible trends: the first the adoption is low, the tool is penetrating with difficulties and it is bound to become a failure or it kicks in at a certain point and scales up, surfing the wave of enthusiasm. Lucky us, we saw the second trend, we were preparing to push more on the adoption side and in the end, we had get ready to solve quickly issues due to the numbers coming into the platform.
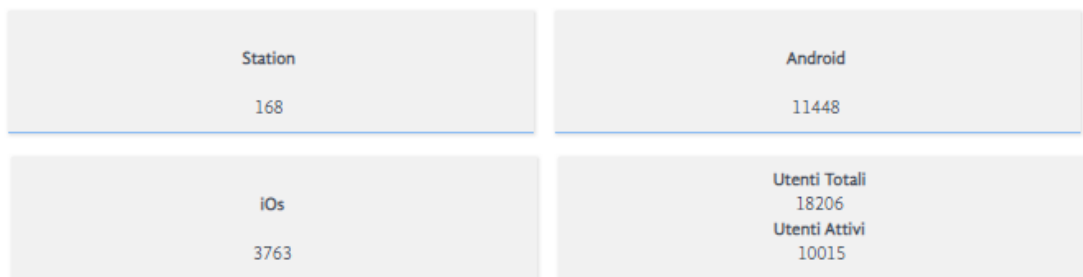
Station	Android
168	11448
iOs	Utenti Totali 18206 Utenti Attivi
3763	10015

Figure n. 27 Badgebox implementation Dashboard

These are some of the daily stats reporting precious data for the project roll out, in left box first line, in figure n. 27 and going on, we have installed Badgebox stations, on the right ox we have the number of Android App downloads in total. We have the same number reported for IOs in the second line left box and the total number of users from the beginning on the top line, in this case about 18200 people have used Badgebox at least once and in the day the data was screenshotted more than 10000 associates where using the Badgebox solution.

To better monitor the trend of growth, I was daily asking Andrea a report with the new joiners and I was gathering feedbacks around, but still in a not well-structured way. Soon I realized that I couldn't keep up with the numbers I was needing a tool to rely on. I have lived properly on me one of the mega trends moving the world today, the data and analytics visualization. I got to the point that I was needing real time information to understand where we were moving and to steer with the day by day activities and not once a week as usual.

Sometimes you cannot only forecast and proactively do, also reacting to fluctuations contributes to the long-term view. For this specific reason I asked Andrea to set up a dashboard to capture in real time 24/7 some stats on Badgebox, also to make the project more appealing to a less technical audience and a more business oriented one.

In the first place the objectives were to have only active users of Badgebox split into Badgebox station users, Badgebox App IOs and Android separated, plus the aggregated data.

In a second moment, I was wondering where Badgebox was recording data and so where our clients are located, both Station and Apps know where they are placed, or record data and I thought it would have been very useful to have represented on a map the stats regarding high concentration of clients or the opposite. Here we can link the project to one of the second possible development of this solution that Erika planned to follow in the long-term view, replacing the so called "planning" with BadgeBox data.

2.4.4   The Adecco Planning

This topic deserves a more detailed explanation. Adecco grew up as a Sales driven company, this means that the most important KPIs are related to prospects, clients and number of associates, then come the EBITDA and the Net Profit. Accordingly, to this, the Human Resource have set up during the years a compensation of the Business functions highly driven by performances, to moment that many sales people could double and more their RAL during the year. Bonus is calculated of what said above, less have been the care on the margins also because the business has been growing year on year, profits were almost sure.

During the operations review happening each quarter the focus of the management has been the same and it is clearly observable the importance of these indicators, accurately calculated by the finance department. Thanks to the growing presence of electronic tools and the birth of the intranet, a weekly reminder has been built to inform all the staff about the performance of Adecco Staffing week per week. The basis has been chosen due to the market characteristics, therefore it is important to monitor weekly fluctuations, also used to benchmark with the Budget.

Each week an email comes on Friday reporting the result of the week in terms of client number and delta respect to the same week the previous year and the number of associates, with the same delta. An example of planning in image n. 28
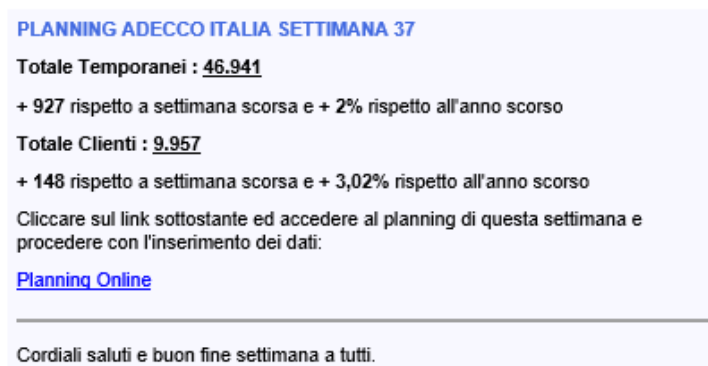

PLANNING ADECCO ITALIA SETTIMANA 37

Totale Temporanei : 46.941

+ 927 rispetto a settimana scorsa e + 2% rispetto all'anno scorso

Totale Clienti : 9.957

+ 148 rispetto a settimana scorsa e + 3,02% rispetto all'anno scorso

Cliccare sul link sottostante ed accedere al planning di questa settimana e procedere con l'inserimento dei dati:

Planning Online

Cordiali saluti e buon fine settimana a tutti.

Figure n. 28 Adecco Planning

I want to underline this is a very useful information to give everybody the trend and result the Group is having in Italy, it seems to be a nice dashboard, in reality there is a lot of manual work to do in the background. In fact, it is built on the aggregation of the KPIs of

the Operations (12 in Italy) they send every week, the is worked and these number are extracted.

The estimation of the effort is an FTE per week per Operation plus another 0.25 FTE in the HQ. A lot of inefficiencies for a single dashboard, this is strictly related to what I had described in the chapters above, there are many ways of keep the time tracks and this makes thing complex to be count.
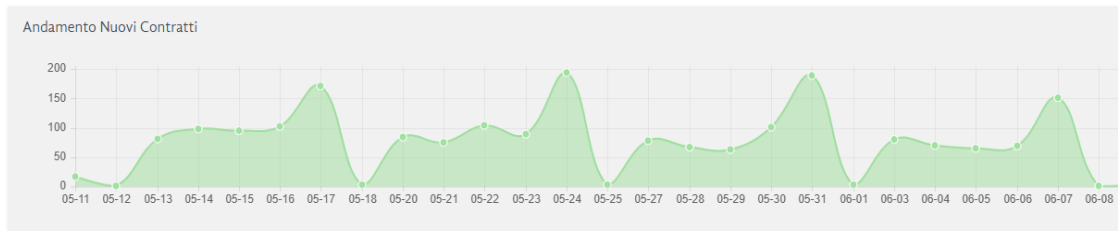

Figure n. 29 Bagdebox new Joiners Report

The idea that Erika had is to onboard every client and associate on Badgebox, both time capturing and as database for timesheets to finally have a single source of information to calculate the exact number of associate and clients not only week per week but day by day with a single button. We are moving towards a digital era where to be ahead of the competition the top management must have company's results at hand every hour and minute up to date.

Then having a single database allows to build on data forecasts and new KPIs to understand if the strategy reveals to be effective both in theory and execution. Till today nobody has been able to clearly look at the exact concentration of clients and associates per single CAP, you know you have a client there with a couple of people, but you are missing the benchmark with other areas, the industrial sector, the dimension of the clients, historical data of that area and so on. The more we were rolling out Badgebox the more we were understanding how powerful it would be.

Adecco is a clear example of a company who is seeking for that and at the same owns so many that could really become a provider. Digital tools like Salesforce and LinkedIn are its main source of information but in parallel, investing on internal tools can really impact the view of the market and change the target operating model of the company. In this view one of the considerations I have thought about while working on the project is built analytics on certain clients belonging to certain categories to really partner and build a successful future.

Nowadays Adecco Italy presents a high present on manufacturing clients due to the situation of the market and the type of economy we have, mainly presenting an economic landscape with more than 2 million SME, Small and Medium Enterprises. Those business are specialized in crafting and mechanics therefore Adecco had to follow their needs, presenting an important percentage in the market and also personnel fluctuations. In the year the Staffing company increase a strong expertise in serving operators for assembly lines and similar, now the name in the market is strong and

trusted. Clients really rely on the role of the salesman also a consultant for their strategic decision, especially the medium and small ones, but also large clients could benefit from Adecco's knowledge.
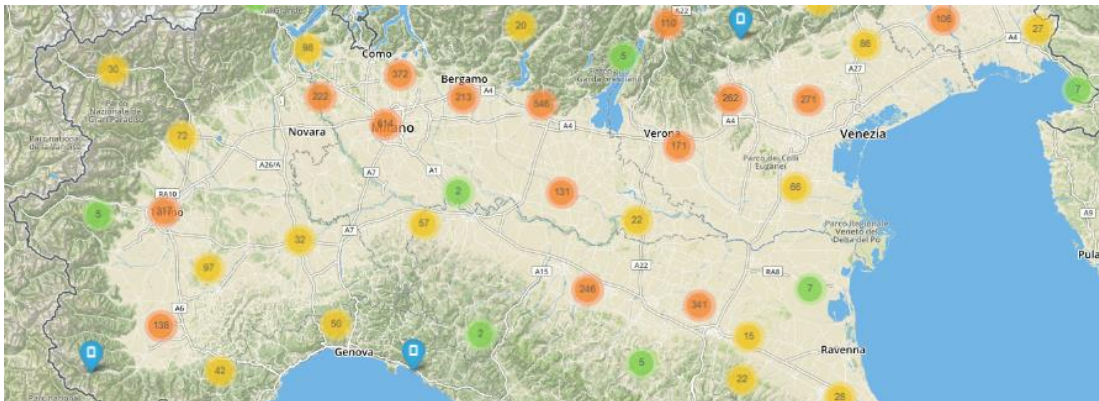

Figure n. 30 Badgebox Adecco Geography Presence

One of the dashboard we have created is showing the regional (image n.30) and city presence of Badgebox and therefore of Adecco, pointing out especially area in which we are particularly strong and remarking where we have weaknesses and we should gain more market share or understand why we have less presence in some areas for example.

In Italy there is a legal limit on the percentage of external employees you can hire, 15% of the total workforce but still is a consistent number, imagine a 20-people company with 2 external, it quite significant. In this scenario, where Adecco has each day around 10 thousand clients and more than 40 thousand associates working, the amount of data collected is huge, we talk about shifts, duration, extra working time, period of contract and many others.

All this data can be digested, elaborated and match with market trends to really merge and create a solid starting point to forecast and steer also for clients, making of Adecco the real advisor for the Human Capital management and development. Calculating performances of production lines it is often difficult, here it can be possible link also to the team present and working to reshape accordingly to capabilities and previous results.

2.4.5   Messaging

During the implementation of Badgebox on the key functionalities listed above, even if simple, was the messaging community you can create on the platform. In fact, one of the main pain of the branches was the way they communicate with associates, not standardize and strongly dependent on the relationship created with the single person.

However, communicating is very important to send updates and changes in shifts for example, because the relationship employee and company is very atypical here. Normally you deal directly with the employer but when Adecco is running the service, legally the real employer is Adecco that is providing a service of people to the client and

the relationship is Client-Adecco and Adecco-Person, basically is an intermediary. Sometimes clients deal with Adecco associate as internal employees and Adecco in the end is only accountable for the payroll, when coming to large clients the internal HR communicates to the branch that then has to get in touch with the people.

A tool or a specific channel was not set up officially, for many years SMS were the main way, together with email, but one is not always at hand and the other one has no option to understand if it has been received and read. When social media were introduced things changed again and it became a hybrid way, some on Whatsapp and Messenger and others on SMS and emails. This make the branch wasting time replicating the same message on different platforms, still not succeeding in confirming a read message versus a not read one.

Badgebox was finally introducing a chat point to point with each person and common communications from the branch with the special customization of getting the famous double tick invented by Whatsapp. Companies are moving fast and they might need to communicate rapidly to employees, Adecco has to do the same and Badgebox is fulfilling the need, while making Adecco saving money from the services of SMS and email providers. An interesting request came from the team managing Amazon that is one of the largest clients, serving both delivery centers and fulfillment centers, and also outsourcing part of the parcels delivery.

As we know it has to deal with high peaks of demand that usually happen overnight due to the volatility of the business. They have a very high SLA and their customer satisfaction is based on time to delivery, the need for speed and people is tremendously high. This translates into many challenges for Adecco and one is communicating the shifts to workers that till now has gone through various tools to make things faster, they came up with a requirement of a dashboard organized by group of people that can see all in common the shift to do for the week. We went to Andrea and he immediately approved the idea and put it into the pipeline of releases to make sure we launch it on time.

2.4.6   Leave Management

While we were scaling up with the App we have started working from December on the leave management capabilities of Badgebox, first to define the process and then to configure the application in the suitable way. For this reason, we have also involved Alessandro at the time working in Italy on the Grow Together project, Badgebox was one of the pillars going on in its portfolio and we can count on its expertise on the branch processes.

In fact, the launch would have needed a clear review of the approval steps for a leave request, both from the internal and external standpoint, the stakeholders involved are branch and client and we had to establish the weight and the degree of involvement in the process.

Before starting it is worth to explain the world behind the leave management requests of associates, that as previously explained, the real employer is Adecco and not the client. However, the client has a key role in the process since he is receiving the performance and he has to step in at some point and here is the complexity, in general the branch approves easily when it is in line with the policy.

Basically, in a normal job there is only one approver for your absences, which is your boss, but in our case, there is one former and the operative one that has always the last word. Generally, a person asks to the clients and once received an approval he comes to the branch to have also Adecco approval. This should be the ideal process flow with few simple steps, but two are the main problems: one is receiving an answer and the second is the way used to communicate. There is some issue at the source, when the associate is asking for leave related to the past because they didn't ask in time.

The first point is linked to a trust and commitment lack on the client side who often do not care about Adecco's people because they are not their even if they pay the invoice at the end of the service, but as long as we are talking about IT, this is not the right place to discuss (might be solved with new communication tools).

A missing central tool to manage the leave management request was often creating confusion on the branch side and happens that some requests were notified by the client because they didn't approve them. Litigation with clients is never something easy to sort out, therefore there was a strong need to find a new way.

There were still also paper sheets going back and forward, phone calls, email and SMS from associates asking for a day or so, leading to a lack of tracking, nobody was capable of counting the requests except when they arrive into the SSC. In fact, the only one department clearly able to control is the SSC, since they are making the payroll they finally count the request to understand if they respected their limit. Think about it as a production line, is like building components and assembly them with no stop but only putting a quality control at the last station, it is sure a lot of pieces will not be good and need some rework. Here was happening the same, no control or really few until the final check from the SSC, remember they deal with the payslips, a wrong one means problems with the client, or the associate or a loss of money for Adecco.

For the purpose, Badgebox has already a built-in functionality to manage those request, but they haven't thought about a complex process like ours and so it needed to be reshaped. We were counting again on their flexibility and we open a table for discussion, starting from the As Is process, or likely to be process, in the operations to define the To Be process. In this phase we had to involve all the stakeholders involved, the controllers, the IT, the SSC and Grow Together to push new efficiencies. One of the best thing of the Adecco culture, that helps in this moments, is the fact that most of the people have run a branch in the past and then moved to higher roles, still they have a view of the daily activities and process. Wearing the clothes of the branch is always crucial in every project to really make their lives easier and the processes lean and clear.

We started from dividing the type of request into 3 main categories:

- General requests paid
- Illnesses paid
- Other request with documentation

As it is clear shown in the tables below, three were the main actors involved:

- Associate
- Branch
- Client approver

Here an example of process for leave request with client approval (figure n. 31).
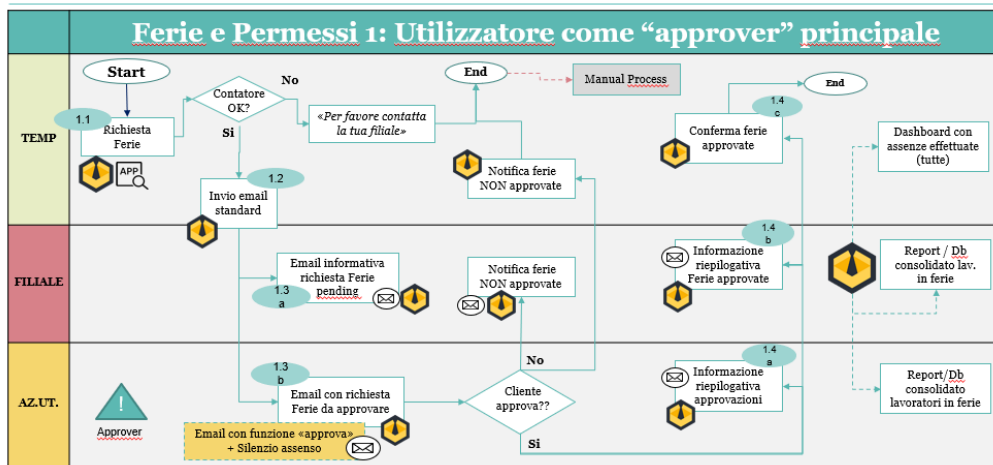

Figure n. 31 Leave Management Process

As mentioned above, it is fundamental to set up a process with a cut off based on a counter to determine if a person has left some request to be utilized and so paid by Adecco or the INPS, otherwise they have to be recognized has unpaid hours or days. Here an example of process for leave request without client approval

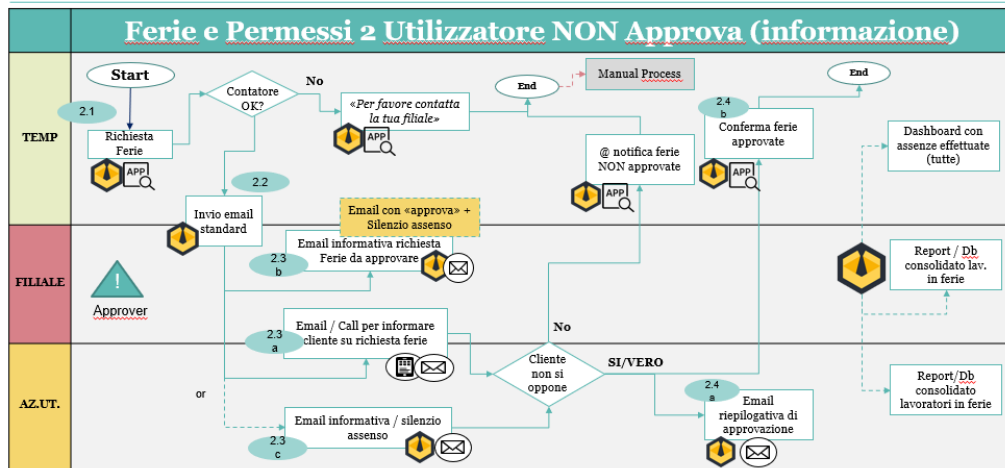## 1. Absenses Management – Case 2: Cliente NON prevede approvazione

Figure n. 32 Leave Management Process Days Off

We organized in the following way, we gathered once all together and then we split the roles. The intro session was necessary to set up objectives, roles and timelines, in the project chart I had initially supposed the launch in February, then the end of the process design must have been concluded at the end of November, to go into the development during December, piloting during January and be ready for February.

It sounded like a nice plan, even counting some contingency we had some delays from the beginning especially in the process design phase. Looking back at the job done I can see a little lack of ownership and commitment in some people, who for other priorities or overloaded couldn't work as expected. It is evident how in every project the team is fundamental, not only on the competencies side but also on the commitment in what is set to be achieved.

Alessandro was in charge of the process design and representation as the schemes above show, they are the outcomes of several meetings, most of the time the delicate points were the change management that at the end, the branch should have done when dealing with the clients. With the associates it is easier, since being the employer allows you to cascade a top down solution, while you have to sell something to the clients.

The new process was good but still we were always uncertain regarding the right level of involvement on the client side. For this reason, we have set up an automatic approval after 3 days that the request has been sent, we could expect all the approvers follow our indications unfortunately. Finally, in January we passed into the development phase and Andrea delivered as usual on time, in the last week of January we were ready to test in the SSC. For the purpose I created some tutorial and guidelines for the people also to see the way people understand the tools and then use videos for the associates.
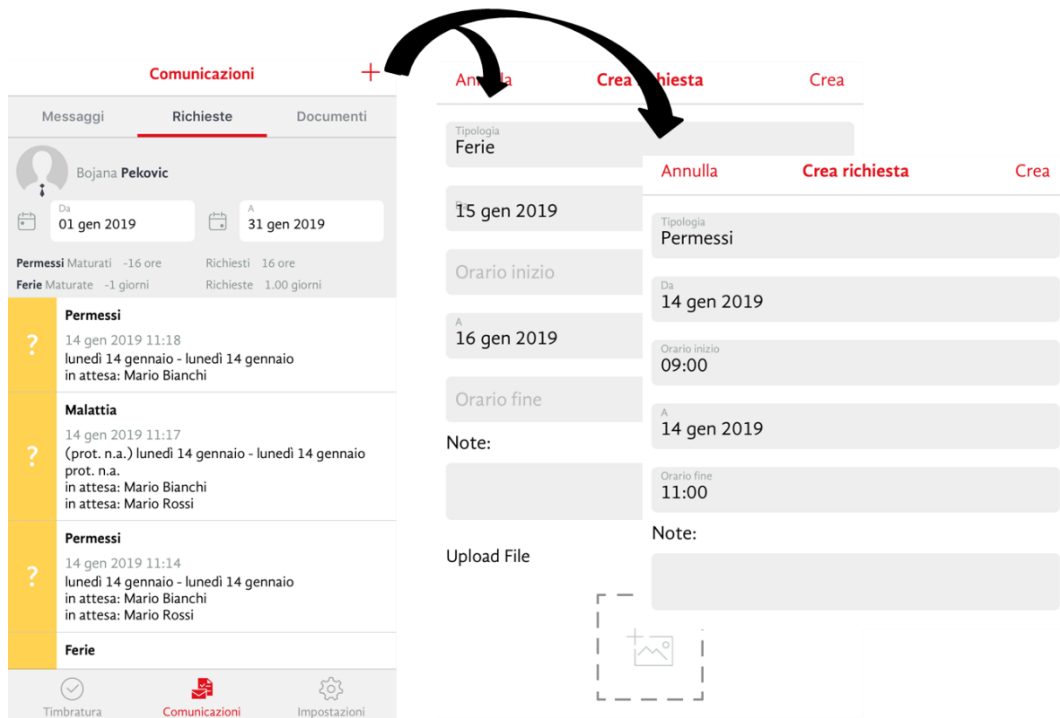
Figure n. 33 Example of Absences Management in the MyWallet App.

Every time there was an enhancement of bug fix in the app I had to follow the process in compliance with the Group standards, I learnt how to use a very powerful tool called Service Now, for ticketing management, and ask to the Global team of Nitesh to submit to the Stores the new App version. Every time you have to motivate the new release, detailing the changes also to insert in the stores what is different from the last version. Android is always easier to do and less strict control are applied while with App store of Apple often takes a couple of days before going live. I mentioned this because whenever a functionality was ready I had to wait a couple of days before going public with tutorials and demos, otherwise nobody would have seen and used the new features, this would have led to a decrease in adoption.

We tested for a couple of weeks together with the SSC operators and I asked Andrea to send me a report of the number or requests sent, the result was dramatic. Only two requests have been sent, I was surprised and only after I remember we had tested on only 16 people and that have a particular contract, which is called vertical part time.

They do not work all the week long, they may do from 2 to 4 days a week, meaning they do not need often holiday and this makes of then a wrong testing basis, we needed to expand quickly in order to really understand the usage and get some feedbacks.

On this Mario had a great idea, we should have gone directly to the branches, they would be a representative sample. Since we had few options, we should, at least, select some fast and easy branches, also some to get in touch quickly. In light of the experience had with the first pilot done in September, we agreed to go with them a second time, since from a change management stand point they were already onboarded.

What hasn't been said, is that during all the pilot and testing phase, the functionality was not already integrated. Let's explain what integrations means here, the definition would say two systems are integrated when, given two different database and data set, these two entities are capable to speak to each other and exchange information in the same format. Going down to our case the ERP where all the contract, associate and client information are stored can exchange and interact with the Badgebox database through interfaces built for the purpose.

Since the ERP, called Ole', is a legacy application, meaning that it has been developed for the specific purpose of Adecco and it is exclusively used by Adecco, it was not design and built to support the integration with many systems around, because it was created 17 years ago, when nobody was talking of digital era yet. Therefore, each time you have to introduce a new application, which for sure uses data coming from Ole', the backbone of the company, a new interface has to be built, tested and then released in production, taking at least few weeks. In IT there are different environments where an application can work, we used to talk about three in Adecco, Test, UAT and Production.

Test in for the testing and check phase as the name says, where after the development you can easily have a trial of the future without touching the data that are really used outside the IT department. Then we have the UAT, when the test has been passed and concluded, the code is moved to a middle environment before going into Production which is the last step.

Production means running, the application or feature is officially available to the customers, to give a simple example when we access to the Polito web Page we are in the Production environment accessing to real data and do our activities, while in the backend there are some developers writing new code and test it before launching the new Online Secretary page.

All the part related to the Time Capturing explained before are already integrated with Ole', they were one of the first activities done before launching the project, happening in the moment I have been place on the project in August. All the data coming in Ole' were also sent, with a specific filter, to Badgebox to be store and used, at the same time Badgebox can send back data via the Webservices. These services are the integrations mentioned above, those are developed by a dedicated team in Capgemini, a bog system integrator company, they provide an outsourced service for application management.

On the Adecco side instead, we have some Analysts working on the application from a functional stand point, these team has responsible Youcef, who is directly dealing with Capgemini for the application development. This is an overview of how things work on the ERP, which is the main application to which Badgebox speaks and often determined the launch of some features, let's see why.

In the contract stipulated between Adecco and Capgemini, has been agreed that the number of releases per year are limited to 4 for the price negotiated, with a certain number of hours the consultants can do working on Ole's code. It seems a lot but think about what we said before about the Mobile Application, already waiting two days was much, imagine months and now you can realize if all the update you normally see on the

stores do not happen weekly but every three months, in the world of technology and innovation it is ages.

In the beginning I didn't realize the limit of this type of relationship and I thought, in my previous experience I was in a startup, enhancement and changes can be done in few seconds, the same Badgebox does on its product. In an environment like this one scheduling of the activities in crucial, even more when you are not the only one asking for development and then your request have to be priorities according to project, budget and business needs. I soon understand that I need to make a plan and make everybody buy it and close the loop as soon as the capacity for a new release becomes free, that it what I did before handing over the project.

For now let's go back to the integrations, every time we succeed to deliver a new features or implementation, on top of time waited you have also to spend some time testing the integration internally, here is the point when somebody created the APIs. This term stands for Application Programming Interface, which is basically a faster way to expose certain data from a system to another one, by applying the same format, making the job for a programmer easier to understand and integrate.

To give a simple example of the use of APIs, whenever you are logging into a website and it is asking you to sign in with a Social Network, well that button works thanks to APIs. In a digital era, where system gets more and more connected, systems are built to be upgrade and strengthen with plug-ins and add on APIs are extremely important, this is way all the new applications born with incorporated APIs. Remarkable is mentioning that there are growing libraries of them, allowing more and more developers to build new applications faster, with the LEGO mode, adding blocks on blocks. Imagine if in Ole' these were already open, the project could have gone faster than it did.

To continue on the leave management feature, we were saying it was not a live and integrated functionality, we made it work with an initial massive export of data into Badgebox via Excel from Ole', to initiate the counters that we had set up. This is something called workaround, making things work anyhow, we sorted out the problem and we can test completely, seeing if the process was working correctly. The export has only one big problem, the two databases are not synchronized, therefore if something changes on Ole', Badgebox still works as nothing happened, creating issues when new associates where on boarded by the branch but their data was not.

We couldn't really know if somebody was doing that till the end of the month where reconciliation happens in the SSC and they found mismatched information. Long story made shirt, this was the real obstacle to the real go live to the features and this because there was an integration missing. If this data exchange would have been already in place, after few weeks we could have escalated to all the associates already using Badgebox in Italy, but unfortunately things slowed down and in the mid of March, only 150 associates were adopting leave management with a total of 70 requests done in 4 weeks without issues, proving to be correctly working.

How it was possible to let a small population of the users see a functionality? Here the power of a platform built very well and lean like Badgebox. Reminding of the LEGO mode

to build an application, this product was designed properly in this way, there were many goals achieved thank to the switch on and switch off already present.

It was very helpful for me dealing with two complete different companies, working together in a partnership, on one side Adecco trying to digitalize processes and deliver better experience to customers and on the other side a small startup just arrived on the market and willing to experiment and train. Both the organization and the governance of the two are very different from each other, starting from the fact that Adecco IT Hub in Italy, that with 39 people, serves 3000 colleagues and more than thousands of candidates every day while Badgebox with a time of around 30 people was serving only a hundred customer all over the country.

I had to interfaces with many people on the Badgebox side since the idea is staff is sent where it is needed rather than the Adecco way where people are allocated for almost a calculated amount of time. Adecco has a fixed budget to keep the lights on, compensation and benefits, projects and so on, in Badgebox Andrea could decide accordingly to his priorities where to focus with the team and how to manage the budget.

Many topics described above are symptomatic of a slow-moving company in terms of technology when speaking about Adecco, but it is a pretty common situation when you have become a multibillion dollar company and you can't afford certain risks. Badgebox on his side was always betting and pushing, stretching the product towards the client needs. Also helping them was the dimension but again companies born in 1990s are set up very differently from one born in 2015, they have designed and created on flexibility and agility, to scale up and down with simple click. Their capacity of increasing numbers of people onboarded is incredible, because they don't need to hire more people for management, at least for product development. This is one of the reason why Adecco decided to invest on them, usually corporates interact with other corporate who propose expensive and complex product while small business can really make the different with a brand new and low-price offer, of course with all the risk of the case.

2.4.7   Branch Access

The more we were empowering the associates in using the platform the more was rising the need on the Operation side to have also access to the tool, to control and monitor directly the people and access to another set of functionalities.

In particular there were two main things that the branch need to manage on the platform: modifying the incorrect time tracks and controlling the adoption of the associate to identify the one who are onboarded and not using it. In fact, before Badgebox was implemented and still when it was, the branch and the associate can edit the clock-ins and clock-outs directly on a web page, after the login to the personal account to correct the wrong ones and insert the missing ones.

Again, thank to Ole', built to be able to perform multiple tasks and now the need was still present, the same can be done on the timesheets recorded via Badgebox but this was creating a timing problem within the SSC chain. Going back to the paper timesheets, the

problem is that they arrive all together at the end of the month when the clients decides to send them. Imagine that here was the same, both the branch and the associate were correcting the records only after the 28th of the month, causing the operators to rework and re-check the payroll already done, since the hours may change. If the process would have been left like this, no efficiency will be created, and no value delivered because the peak was left untouched.

Badgebox was born as real time and 24/7 access solution, meaning that employer can see in real time who is at work and who is not, tracking time and so on, we can clearly say that allowing people to modify the data that is already on the platform is not a problem as long as it is seen immediately, everybody can forget or make mistakes.

Since the product in the application landscape of Adecco was not standalone, therefore its data are connected to other system you have to allow also the other systems to retrieve the updates and consequently present the same data everywhere. Unfortunately, this was not happening due to legacy and obsolete systems, developed internally unable to keep the pace of a brand-new tool.

Basically, to recap we had other two challenges in front of us: set up a new process both for the branches and associates for data input and sort out an old application unable to update with new data when needed.

First of all, we wanted to target and concentrate our efforts in the operations, the requests were increasing and before listening to complains it was better to satisfy them. in fact, the branches were being contacted by the associates needing to change some record in the app because they forgot, but they could do yet and for the process we have designed it can be done only by the internal staff. The thing was, even if the platform in terms of design and user experience was built to be easy, we have to count on not a high digital skilled workforce within Adecco, the main business is selling not technology.

We want to be effective and to see a high level of adoption immediately, for the success of the project yes but also because already thousands of associates have been onboarded. Also, the scale of the training was quite big, the number of Adecco offices in Italy is around 380, we at least 2 people on each impacted, the target final population was of almost 800 people. Train them would have required lot of time and effort if done physically but again we wanted to be innovative and accordingly to Mario we decided to go for webinars.

Webinars are becoming year on year more popular and they are considered a quite effective but especially efficient tool. It allows to reach a wide audience and the attendees are often satisfied. For the purpose we asked Bojana to prepare them together with her colleagues to set up some session involving the operations. To facilitate we preferred to split anyhow the branches, this way was easier to ask questions and get more in contact with us and the Badgebox team. Very powerful feature of the webinars is they can be recorded to facilitate the study of the platform and can be sent to other that may will be involved in the usage.

The first webinar was held on the 28th of February and it has a lot of success. We were able to present all the functionalities from the messages to the editing of the time records. Another problem that has been solved with this was the notification the platform sends every week to the branch to remind some activities. What we did with Andrea is setting up an email automation at the end of each week where the branch can find useful information and inputs regarding the associates, it is a way to help the people control what user are doing on the platform and make sure clients get clear and accurate data.

In the process design phase, we thought about inserting the most possible quantity of automatic flags and checks to support the branch and let people do more added value activities rather than remember to control who has sent the timesheet and who didn't. We set up some counters to immediately highlight who forgot to check in and check out, who was using the App without the GPS, who presents some generic error and in the initial phase who was on boarded but have never performed a login.

2.4.8 Email routine

At each end of the week, Badgebox will send a report email to the branch advising on the number of people (by clicking on the link also the details) who present some errors and needs to be correct before the cut off on Tuesday. Here was easy to set up and do, the problem was that we import from the ERP, Ole', all the colleagues profiles that can have access to Badgebox to perform some tasks.

I seat down one day, together with Mario to discuss the position, better the roles existing that might need to see Badgebox data and then I communicated the type of job to the Analyst of Ole' to get this information exported each week. Unfortunately, we found out soon that the list export was not correct and plenty of people, who I knew would have not had access, were able to get in and receive the email. Having access was not a priority because in any case to have access you have to pass through a link on the Intranet, which means only who wants to click on it and it is not redirect automatically. The real problem was the day we sent the first weekly email I have been called multiple times, many colleagues have received branch email even when they weren't branch staff, rather they were HQ staff.

Since some of my colleagues received hundreds of emails when they weren't supposed to, but in our systems, they had the right access to the tools, I launched an analysis on the ERP data to figure out what went wrong. We soon discovered some figures where still saved with their old position and some others were considered as part of every branch as long as they were national accounts. For this reason, some were receiving email from their last branch and not the actual one, others instead were receiving the email of all the branches, a real mess. The number of people addressed were about 12 and we could manage them manually, thanks to the fact all contacted me the same day.

In reality the problem was not only related to emails, was also related to branch and then associated visibility. In particular there are two roles that must have this access, the Branch Controller or RG and the Branch Assistant. In last few year, thanks to the system

and process many of these roles have been decided to be shared among different branches and so they can have access to multiple data, we have to consider that each branch has its own P&L, it is standalone world sometimes with its own data. Therefore, we gave access to these people to many branched and so has to happen with Badgebox, counting on the fact we were importing data from the ERP, this should have worked fine.

For some export errors, not all of them have the right login, consequently they were contacting me or the Help Desk to have support.

Since the request of the problem described upon was constantly increasing we decided to let the branch itself manage the access and the emails. Agreeing with Andrea, we created a new functionality to manage the colleagues internally in Badgebox to let the branch divide the task as their own preference, in order to give the once appointed the right to work on Badgebox and to eliminate the ones who have no interest into it. It resulted to be successfully, and we immediately added the instructions into the webinars and tutorial to make it live as soon as possible.

2.4.9   Correct Timesheets

As we were starting to discuss earlier, one the needs driving the accessibility to the Badgebox platform for the branches is the editing of the incorrect timesheets. Compared to the process ante-BadgeBox at the beginning there was not much difference, we left the branch modify the records in every moment within the month, but this was creating a lot of inefficiency in the SSC. Before they were receiving the paper sheets in a bulk at the end of the month, with Badgebox they have the availability of data day by day, their job was easier since they can interpret data as they come and level the demand. However, receiving updates and changes in the middle of the month, results in being an important issue, making them check many times records an hour they have already elaborated. We started giving to the SSC operators reports underlining edited records to make their job easier, but in any case, it results in being a waste of time and efforts.

We had inevitably to stop the problem at source, it was not a technology issue rather a process issue. We decided to implement a strong cut off to the modifications of the records both to associates and branches, for the first once it was every Monday at 1 pm and for the second once every Tuesday at 1 pm. This was meaning that after the cut off, changes were no longer accepted and so they were all sensitized in check-in and performing tasks correctly in the first place, exception have to be communicated directly to the SSC. The data are then exported into the harmonization tool AAGP every Tuesday at 2 pm and so the SSC can start working on them, avoiding rework and gaining efficiency.

This strong decision has been taken for two root cause reason: one is technological limit and another one a change management friction.

On one side there was tool limit, recalling the famous tool AAGP which, to give a little background, was developed more than 15 years ago internally by two people still working and managing it. It has the task of collecting the data from various sources of information

and time tracking methodologies, it harmonizes them and send them into the SSC tools for the interpretation and till here everything is ok. The problem is related to the type of action it can do, it only presents the write of the records and the re-write of all the database only, meaning that its record can be written but not deleted, the only way to change or delete one, is to delete and rewrite everything from the beginning. This was not a limit till the introduction of BadgeBox which give the complete flexibility of modify something whenever you want, letting BadgeBox data going into AAGP results in a strong limit for its capabilities because data cannot be changed once exported. For this reason, the cut off was set the way we did and commented above.

The solve the problem I proposed something that leads us to the second problem, the change management. In fact, in the first place, accordingly also to the CIO vision, I proposed to replace it directly with Badgebox, meaning integrating the platform with the other time capturing tools and let it become the harmonization, thanks to its flexibility and also cost of implementation. In this way we could have decommissioned AAGP and make the new process leaner and faster, but unfortunately this is more a long-term vision, requiring effort and budget that for the moment were considered as second priorities.

The thing is that in the period the management has changed, the CIO I was referring to be a new one that was targeting different objectives while the project was already on going and positioned well. Considering this not a ready to use option, I proposed to Francesco to let the SSC operators directly accessing to Badgebox a let them interpret directly on it, since it is also what it was born from, a strategic option on my side since it would have also accelerated the adoption of the automatic time interpretation feature.

However, it seems not convincing him, he claimed that it would have only created confusion among the teams because consequently they would have to work on different tools following the different clients and it would have led to lack of standardization and clarity. I personally linked the fact more to a friction towards the change management it would have required immediately and the SSC responsible would have to accommodate a new risk, something that in any case is going to happen and we are going to see it.

2.5 Time Interpretation

From this point it is easy to link the next chapter related to the second main potential BadgeBox has been chosen for. We have widely discussed the Time Capturing capabilities of the platform, but we have not started to see yet the real engine that is the competitive advantage of Badgebox. We have spoken about collection of data, of creation of timesheets and yet, this is a very important piece of the process, but the one who is very inefficient and time consuming, is the time interpretation. This is what a consistent group of people within the SSC works at, they pick up the timesheet of an associate and calculate its wage and consequently, according to the client contract and pricing, the invoice is sent.

It sounds like a very simple process and looking at it is staying on a high-level view it really is, the complexity comes with the articulated Italian regulation on workforce.

In fact, comparing the Shared Service centers across Europe for example can be very misleading, driving you to fast incorrect conclusions. Especially in the North of Europe and in America, the labor market is a lot freer and the regulations are lighter, the bargain contract are not so present, due to the lack of strong trade unions, it translates into an easy way of wage calculations.

In Italy instead, as in countries like France and Spain, the labor market is highly controlled by the government and this adds bureaucracy to be taken into account when doing the payroll for associates. Then it is not only the regulatory organs, it is also the labor culture, where in Italy the employees tend to control the hours worked and wants to intervene into the wage calculations, adding comments on the late check ins/outs, extra time and night shifts, which makes each client special and so system are hard to standardize due to this requirement. For this reason, the time interpretation markets, which today is a job done by HR administrators in the companies, has been jeopardized by many tools and solutions, but nobody has been able to become the undiscussed leader.

This is properly what Andrea, the BadgeBox CEO is trying to do, beat the competition by launching a scalable tool, not only capable to time track and do simple interpretation with a very precise algorithm, but implementing the latest technology to make its tool the best in the market. The engine behind the platform is based on Machine Learning and, accordingly to Andrea's claim, it learns constantly, and it is able to fine tune the interpretation by ingesting more and more data. They are very proud of the solution and this is what we have targeted internally, benchmarking with other tools and people themselves to see the accuracy of the results.

Moreover, they were functionalities facilitating the interpretation, it is possible to create rules libraries to apply easily to a person or a group of people, even to manage different profile within the same company and just find the total amount at the end of the month. There were also functionalities able to track the times of freelancers and for consultants on projects to get the task they were working on and then calculate the fee.

The architecture of the software is also supporting the capability of the Machine Learning, thanks to its Cloud base enabling to reach computing power above the average and scale it up and down following the demand.
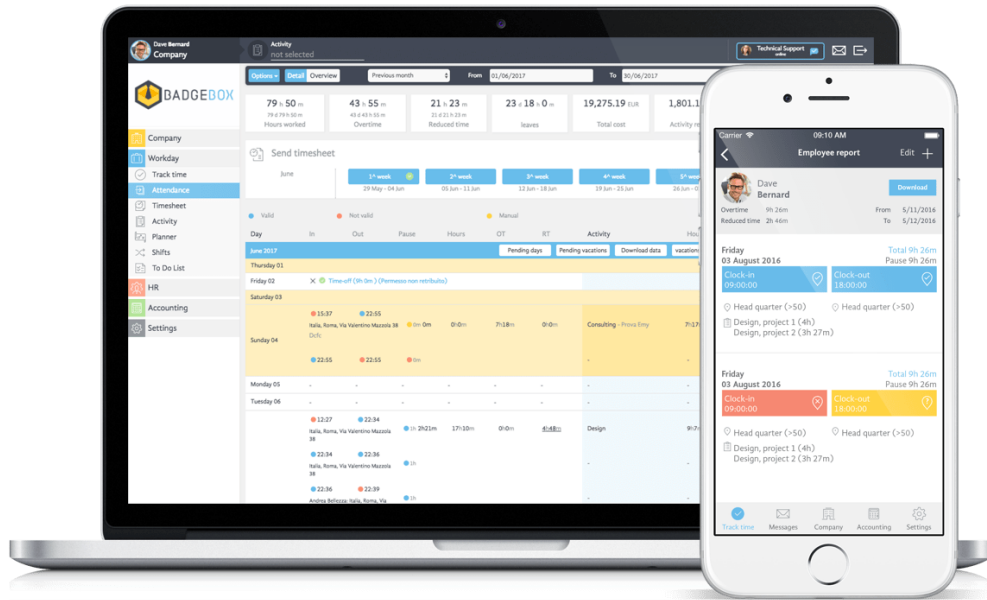
Figure n.34 Example of Time Interpretation Dashboard

As already mentioned, another advantage of the platform was the possibility of conduction two separated projects, one on time capturing and the other one on interpretation and this is what we did, also building a different team to work on it.

Our idea, even if in case we could have decoupled the platform, was to use and exploit BadgeBox at it maximum potential. Together with Erika, Mario and I agreed on different scenarios we could have had at the end of the project and here presented in figure n.23:

Scenario	Time Capturing	Leave Management	Time Interpretation
		Capability	
1	Badgebox	Paper/Legacy	Manual
2	Paper/Legacy	Badgebox	Manual
3	Badgebox	Badgebox	Manual
4	Paper/Legacy	Paper/Legacy	Manual
5	Badgebox	Paper/Legacy	Badgebox
6	Paper/Legacy	Badgebox	Badgebox
7	Badgebox	Badgebox	Badgebox
8	Paper/Legacy	Paper/Legacy	Badgebox

Figure n. 35 Time Interpretation Matrix

Let's articulate a little bit, decoupling means separate the two-different core functionalities of the platform and use them separately, we also considered as core for its relevance the leave management. In the first scenario we can use on the same client BadgeBox for time capturing, keep absences on manual and also the time interpretation.

In the second one, for client friction we could have left paper for the time capturing, using BadgeBox for the leave management and do the time interpretation still manually.

Then we had the third, the most likely one at the beginning, BadgeBox for Time Capturing and Leave Management, leaving Interpretation to the manual process. The perfect and most efficient will be the seven, where data follows a process within the same system, it comes as raw and gets out interpreted and ready for payroll and billing, this is the final objective.

This remarkable adaptability of the platform will allow us to accommodate the different needs of Adecco. Changes of this size happen in two ways, or they come top down, from the top management and people start working on it, or they introduced gently, and they start eating bite y bite processes.

2.5.1   Pilot Phase

If we go back to the project plan, we can see how we have clearly decided to split the project in two, before we have seen the Time Capturing, here is the time to explain what happened in contemporary for Time Interpretation. We already mentioned the stakeholders change a bit but still are the same, here especially the Shared Service Center.

The Pilot was easier to do for some aspects and more difficult for other, we will see them later. As soon as we kick off with the Time Capturing we kicked off with the Time Interpretation, going back to September when the instance for the timesheets was created was also created the instance for the interpretation, they are separated but again part of the same package. The pilot was different from the one we have seen before, because nobody outside the Adecco HQ in Milan would have seen it and then the impact on branches and associates have be excluded. However, the importance of the test was still very high since a wrong estimation and valuation could have effects on the billing leading into frictions with clients. For this purpose, the target of accuracy to reach to label the tool as trustable was set up at 95%. In seems pretty high but it is in line with the precision of human elaboration.

The fact that, the workload would have mostly be on the SSC was positive for the IT and operation but of course not for them and for the project itself, let's see why. The SSC can count on a limited number of people that are already stretching working hours to complete payroll and billing by the hard deadline Adecco has. Adding on top of their tasks other would have meant to receive low level of attention and commitment.

To limit this risk, after a month we have decided to dedicate a team for a certain amount of time (flexible month by month) to work on the tool and really start measuring performances rather than just playing with it. In fact, it was good to let the operators use it to gain confidence and come back with some feedbacks. At a certain point, we had to start contacting Badgebox to customize the functionalities according to the complexity of our processes. The platform was built on the requirements of a SME and not of a giant like Adecco, that from a contract stand point is leveraging, and it is its expertise, every

type of formula. As well as in the rules creation there were some gaps to be fixed, because the engine behind was already good and running, some fine tuning was necessary to scale up.

The people assigned were only three, selected for their expertise and willingness toward technology and after a couple of months the first stats were ready to be presented. In this period, they were engaged in selecting clients, very different form each other in terms of characteristics and contracts but together they cover more than a hundred associates. This choice was made to test the engine on very different and specific environments, rather than going to the simple interpretations where the game was easy.

he principle was, if it works with those, it will work with everybody, since some of them present unique peculiarities that only few clients have. This approach can be put under discussion, because the risks was if it doesn't work with these clients, that are maybe only 5%-10% of our clients, it would have looked like a not suitable tool when in reality the real impact will be on the other 90%. A small improvement on a large scale means large benefits anyway. My task here was to steer the results towards a more positive look, our objective was to reach at least the 50% of clients that on our studies, was already a huge portion where to introduce automation.

The team was uploading was creating rules and uploading timesheets day by day, as it was already live, but in parallel they were conducting the manual interpretation as it was not in place, at the end they were comparing the outcomes and calculate the level of accuracy. The problem was that during the first month some clients had no issue and some others had, because there were some missing rules, very specific, that the Badgebox team had to solve, coming directly from Rome to Milano, to seat down with them and find a solution.

To make an example, when an associate performs the night shift, he begins working during Monday the 10th of June at 10.00 pm, but he finishes the 11th of June at 6.00 am, the engine wasn't configured to support this type of shift that in a factory are pretty common, especially in the chemicals.

Another was the so called vertical part-time, usually part-times are contacts that make you work every day for a certain shorter amount of hours, for this are called horizontal, imagine now to have a part-time contract in which you work on alternative days but for the standard amount of time, the engine in this case didn't know how to interpret the days off, as holidays, anomaly, unpaid holidays. These cases were important for the SSC, they could have modified the overall payslip and so the billing.

Here it shown some of the preliminary results of the pilot, as of November 2018, where the tool was not only compared with the operators but also with another tool under evaluation called HR studio.

In scope of the test there were:

- Ability to recognize the shift based on the hours worked
- Ability to categorize the hours
- Ability to recognized and pointing out anomalies

Not is scope we had:

- Absences management and recognition
- Management of eventual extra system hours

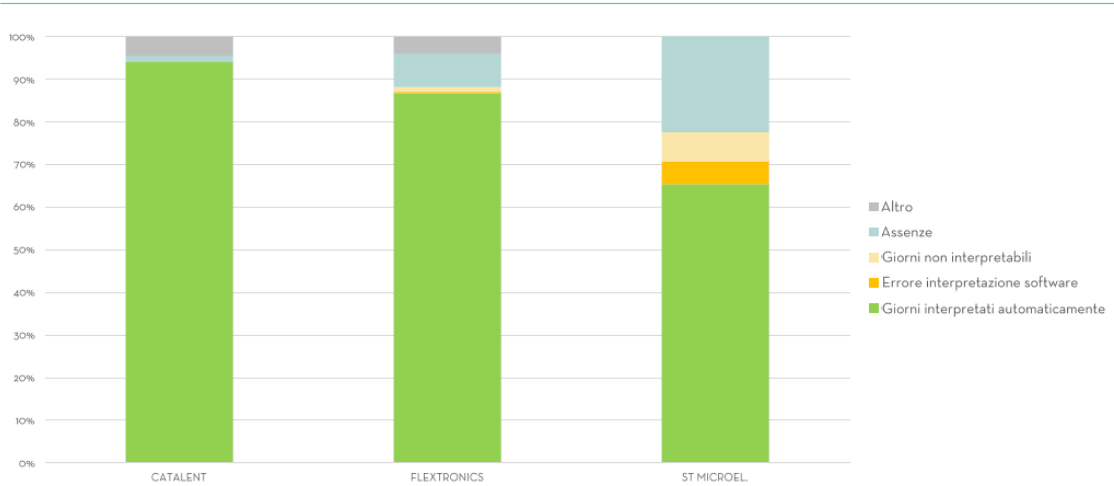## Risultati su Clienti Test
BadgeBox

Figure n. 36 Badgebox Pilot Results

This graph n.36 illustrates how the results can really be different depending on the client, going from a 94% accuracy to a 65% of the third one, for the peculiarities we explained before. In the following the benchmarking with another comparable tool.

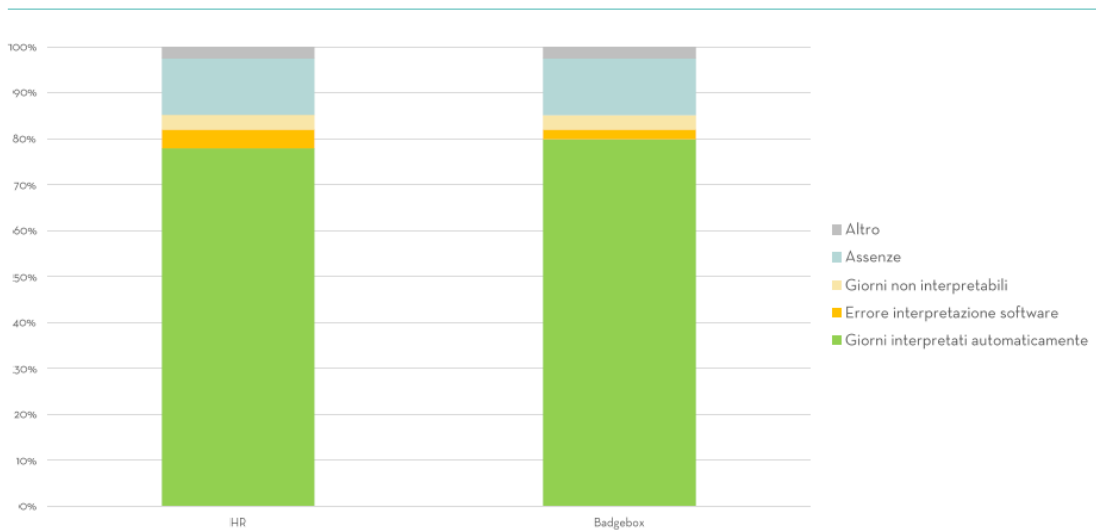## Risultati Complessivi
HR Studio Vs BadgeBox

Figure n. 37 Badgebox comparison

On average their accuracy (in green in graph n.37) is not much different but, when we scale up to high volumes, a small percentage can make the difference, in our case HR

Studio on the left presents a 78% accuracy while Badgebox reaches already an 80%. However, the most relevant percentage is orange one, showing the errors. In fact, in HR studio the percentage is about 4% while in BadgeBox is less than 2%. The results are in favor of Badgebox and the feedback from the user was positive in terms of usability and capabilities, even though some refinements were strongly needed.

At this stage only three clients were reported, after that the number have been increased up to 9 clients, with a total of 145 profiles elaborated via Badgebox. With the enhancements that they have developed during the month of December the accuracy increased up to 92%, a notable result and then the final target of 95% was becoming closer.

Before the Go – live the pilot was divided into three main steps, phase 1, 2 and 3. We have seen till now would was the phase 1 and so more a king of testing and first measurement to understand the usability and quality of elaboration. In scope have been considered at the end only a total of 9 clients, when the phase two would have as a target a bigger number of clients, we established as objective to triplicate the number of phase 1 to ensure if we could go on with phase 3 where finally we could have interpreted directly with Badgebox exclusively on a bunch of client, basically the previous step before the Go – live.

At the end of the project I can say that most of timelines we have set up initially were not respected, we can through the causes later. However, phase 1 went on pretty well till the end of December and unfortunately after that the focus of the shared service center went toward the electronic billing that was impacting every business due to regulations changes. From January onwards, counting also on the fact that the launch of the App was draining time together with the expenses to the team because of small adjustments that needed to be made. Consequently, the time interpretation implementation fall in the second place of priorities till the month of March, where after a meeting with Francesco we agreed a new plan to go on with it. In fact, he was trying to commit the various team in which the SSC is divided to let them know the tool and make confidence with it. Agreeing completely with him, we set as a target to let every operator onboard a client each, in this way they can start playing with the platform and start giving feedbacks back. In reality, over the small team dedicated, other people excited for the news asked to have access and began uploading their own clients. This was a very positive factor for us, meaning Badgebox was being appreciated and useful.

When we discussed this topic, the total number of contracts uploaded was 450. The difference here is that the KPI is based on elaborated contracts and not people, because for a person we can have multiple contracts, contemporary or very close to each other. Then the associate is always performing the Time Capturing with a single device and login, but its payroll depends of two different contracts. We have this peculiarity in Adecco, thanks to our flexibility we can let a person work in the morning for a client and in the afternoon for a second one or even they stop today, and they begin a different contract tomorrow.

2.5.2 Go Live

The Go – Live was supposed to happen in April 2019, when, as already explained, we were still at the second phase of the pilot. What I haven't mentioned yet is that during this period I started the handover of the project for Italy due my change in position within the organization.

Unfortunately, I couldn't follow anymore the project directly, in any case I have been kept involved and updated, but from the 1st of May I was not responsible for its development in Italy and from the 1st of March instead for the rest of Eastern Europe and Mena Countries. To report here the latest news about the time Interpretation, the status in June was the same as it was in May, because till now nobody has taken the lead. This links us to the next chapter.

2.5.3 Organizational change

Previously we have mentioned that at the time the project was launched, the initiative was strongly promoted by the CIO, who also got the buy in from the CFO to have support from the operations and SSC under his responsibility.

The team was set up accordingly to her suggestions, to have a small and lean team to speed up the process and do not let it be contaminated and influenced by other team working on legacy tools with completely different views. This is one of the reason why I was put on the project, supporting the speed with my greediness and little experience.

As of 1st of January 2019, Erika was promoted to a new role with a global responsibility, that I followed later, but still keeping under her hat the Italian IT, to facilitate the transition to the successor, that will be the IT Head of Iberia. Another change to mention is that for Italy a local CIO was kept and so Daniele was promoted as Erika was willing to do. Till here, nothing strange to mention, in a complex organization like Adecco management team changes as well as responsibilities but some project can really be impacted as it happened with Badgebox. In fact, in a short period of time not only an important C-level support was becoming smoother, also the person appointed to its completion has a different view on strategy and priorities.

Due to this also the team was set up in a different way, because the focus was going to other initiative that consequently were taking away valuable time for the roll out, that till End of March has really gone well and KPI were hitting high levels. For a month and a half, I have been in the position of having many open points to close, with a clear idea of what to do but I wasn't support by the right people to close them. The situation was becoming frustrating, since I was wasting more time in organizing meeting rather than building solutions and processes and it was hard for me to set the last milestones to achieve at least to stabilize the platform. Of course, I adapted my way of operating to the new one, anyway it was difficult for me to deal with a person, new in the role, to rely on when I was needing support. I have to mention that also in the month of April my priorities began to new ones in the light of the coming transition also for me. My push become

lighter and all the stakeholders felt it, missing a defined lead the commitment was going down day by day.

The importance of this moment was understanding the weight in a project of the team doing it and of the management team steering it during the way. I clearly saw the difference, as a project manager, of having a strong lead supporting you and having always a good one, but with a different view and approach. Especially for Badgebox where the change had to be made on culture and habits rather than technology. In the past two months, the lack of clear objectives caused the project to be left behind and just at half of its development, staying stuck to good results but half away for both Time Capturing and Interpretation.

3 Final results

3.1 Outcomes and KPI measurement

At the end of a project, even if this is not the case, but from my point of view it is, KPI are measured to quantify the benefits created and evaluate the final Return of the Investment done. In our case the effective benefits were not easy to measure because the impact has been shared across different teams within the organization, from the branch to the Shared service center and in not everywhere the amount of time and effort spent on time capturing was calculated.

Going back to the initial needs that initiate all this chain were:

- There is still significant percentage of timecards not digitalized or delivered in the first week of the month (not interpreted).
- Most of the absences (holidays or illness) are still managed manually.
- The Branches often have to control the records from SSC input, creating overlapping and inefficiencies.

With the following agreed KPIs:

- Achieve more than a 90% of digital timesheet by the mid of 2019.
- Manage 100% of the absences on a digital tool.
- Better Integrate the Invoicing tool to avoid rework.
- Create a control at source of timesheets to avoid branch double check.

For sure not all of this have been achieved but at least the basis now are good enough to reach the goal by taking over the project in few months.

First of all, as of May 2019 the total amount of paper cards dropped heavily from 44%, recorded in June 2018, to a 21% of total timesheets. Therefore a 23% of the associated migrated from a paper-based management to a digital one, with a total number of around 10000 associates. An analysis conducted in June (shown in figure n. 38) to compare the results with September in terms of Time Capturing methodologies shows graphically what mentioned before, with the only one change that every month the percentage can vary depending on the client seasonality, in case represented the gap is always about 19%, but 37% to 18%.

The rest of the 4% of total Badgebox source comes from other capturing methodologies that has been moved to Badgebox to leverage its efficiency.

Source: Time Capture Sept 2018

Source: Time Capture April 2019

Figures (April 2019):
Total N. Contracts:
53412
Clients Total: 9800
Using Badge Box
#12379 Associates
#2800 Clients

Key Achievements
- Paper from 37% to18%; BB from 0.1% to 23 %, Clockin Station (Old Machine) from 16% to 12% - additional savings
What Next ?
Complete Roll Out for TC Interpretation after Pilot in Jan 2019 - 40 Clients in Pilot stage, data available in June
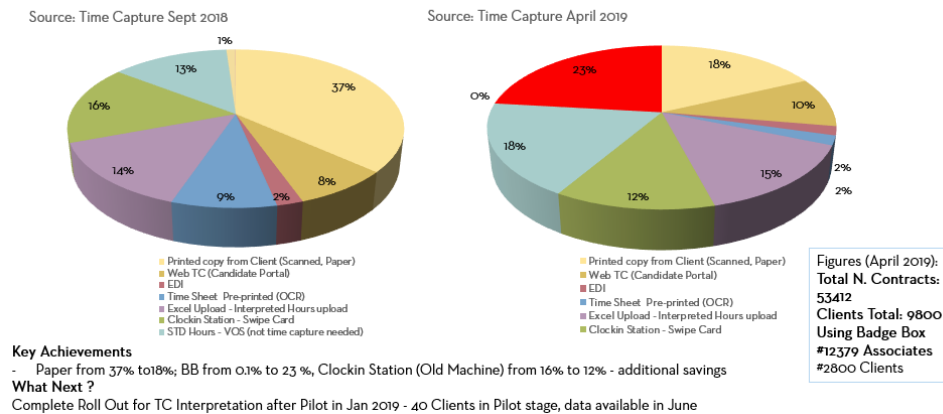
Figure n.38 Time Capturing Evolution

In Adecco this is a great achievement in such a short period of time, it helped saving not only time for both the Branch and the SSC, but also of paper and we released some tension that was stretching the people during the peak at the end of the month. Setting up a new tool allowed us to review completely the process, adding more at source control and moving responsibility back the user in filling with the most accurate and true data. In fact, this solved most of the ping-pongs of email going on between the central team and the operations, asking for controls and ownership.

Another important topic that was covered among the priorities is the absences management, that thanks to Badgebox are passing from a not standardize and nebulous process to a clear flow of information, control and responsibility. This creates most of the efficiencies in the branches where now they have to go after the associates to understand what they did and spending most of the time trying to communicate. At the end of the roll out, this will consistently contribute to the client NPS (net promoter score), by making them again real owner and functional employer of the temporary workers. It also helps in monitoring the activity of our associates and full handle problem of absenteeism.

Standard TC & Interpretation vs Badge Box TC & Interpretation
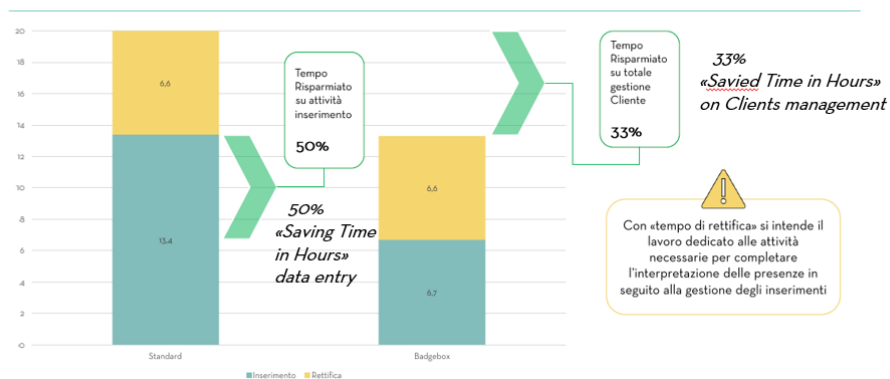**Pilot results in Jan 9 Clients, 448 Associates**

«Saved Time in Hours»

Figure n.39 Badgebox Time Saved

87

Last result and the most important benefit generated by the project, counting that is still only at the Time Capturing and not at the Time Interpretation yet, the number of hours saved is very strong.

In the picture above n.39 is represented a graph with two main pillars at benchmark, the first one before the launch of the project and the second one on the right telling us how the situation looks like today. The impact has been visible and consistent, articulating the measurement a bit more, the KPI considered in this case is the total number of hours spent on the invoicing process of a client, that with the introduction of Badgebox this overall process can drop up to 33% respect to the normal hours. A third of the time saved is a huge amount of money, especially when you consider that this can be doubled considering the clients not onboarded yet.

Still this analysis is one of the initial, in the future must be conducted others following the implementation of Leave management and time interpretation but coming back to this results a total of 6.6 hours is already a good achievement. Analyzing the columns showed in the graph and here repeated, the total amount of time that a client takes to be processes can be divided in three main categories:

- Data Entry
- Data correction and Data Cleaning
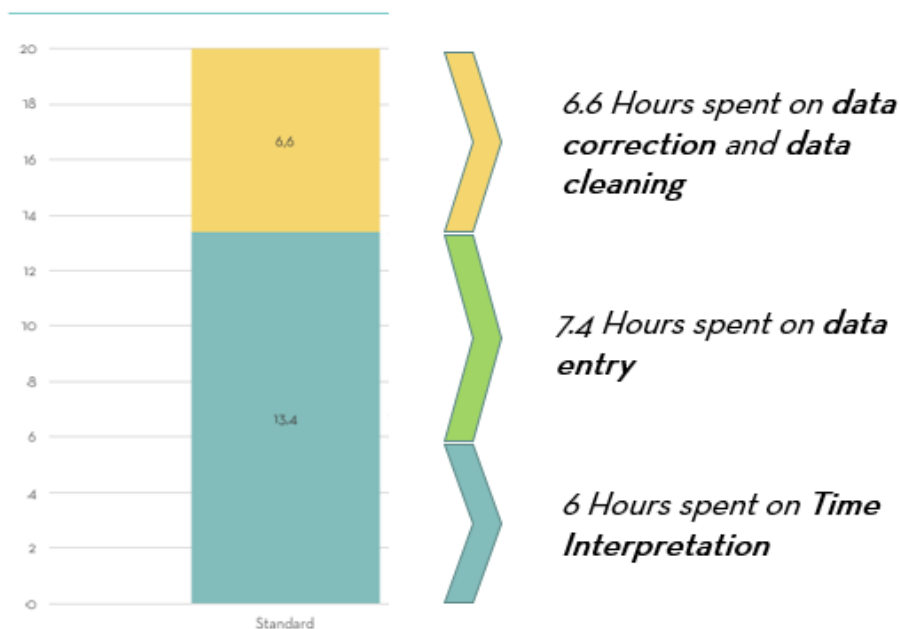- Time Interpretation

Figure n.40 Time Saved Details

There would be a fourth one, which is the invoicing and the invoice emission, but this was not under the scope and analysis since it is done by a dedicated and separated team in the SSC (see figure n.40). Badgebox with the only functionality of Time Capturing affects the data entry piece and in a marginal way also the Data cleaning with the new process in place, but the main outcomes are on the 7.4 hours of data Entry.

The results show a decrease of 6.6 hours in this part of the process which almost send to zero this time, a contingency has to be considered for extra manual activity related to leave management, still not fully adopted and not integrated with STP (straight through process).

Now doing few calculations, on average we can consider a saving of 6.5 hours per client, the clients in scope are around 2800 as we can see from the stats below. Time precious, whatever is the way we look at it, in ours case we are talking about manual work that can be moved somewhere else, doing other activities. We are talking about having saved a total of almost a working day on a person, that before was doing less added value activities and now can go and be more productive and pursue higher level tasks.

This workforce theme links us to the next chapter, covering the aspect of the SSC team that can seriously benefit from the Badgebox implementation.

3.1.1   Shared Service Center people

While describing the Target Operating model of the SSC in Adecco, I was mentioning the peaks it sees during the month, especially at the end, between the 27th and the 10th of the following month for the reasons we have already seen and explained. What happens into the SSC, the team has to stretch to cover all this extra work coming during two weeks and it is normal that it expands fast and decreases immediately after. Holistically looking at its people, the turnover is very high since there around 30 people who are hired for a limited number of hours every month and since the tasks to perform are not requiring a particular skill set rather hands to input data. It is easy to imagine now how, after having seen the first results of the Badgebox implementation, this number will change consequently. We have spoken already about a day for the first of the clients in target, reaching a possible two in total in the end, plus the impact of the leave management that possibly can cut other hours per month.

Nevertheless, we are only looking at the top of the iceberg, once having onboarded 44% of the timesheets on Badgebox the demand will be, for almost half of the total clients, distributed day by day, because Badgebox collects and sends data to SSC every day, allowing them to do Time Interpretation immediately and potentially reach the level of the weekly and even daily pay. In all this we haven't considered yet the impact of the automatic Time Interpretation, hitting the rest 33% of time used during the client processing. Already considering the impact only on the paper client, on half of total number the saving will be approximately of another two days, leaving only some time for final check on the algorithm elaboration. Plugging in the time interpretation on the rest of the clients, it will be easy to cut extra days within the process, clearly beating the need for external people.

The estimation of the impact that Badgebox can have on the Shared Service Center, based on the actual results and adoption, is to potentially save a total of 3 FTE (full time equivalent) every month. In particular, this number will come from the optimization in data entry solved by App substituting the paper timesheets, approximately 1.5 FTE and

the other 1.5 FTE will be the outcome of 40 clients bucket processed via Badgebox Time Interpretation.

The projection, accordingly to the timeline lately proposed, of moving all the Badgebox timeshhets already rolled out into the Automatic Interpretation Engine will create extra saving, for a total of 8.4 FTE, that sum with the PY of 1.5 we almost reach a total of 10 FTE in two years.

Surprisingly, is the same team from the SSC driving the adoption now, showing enthusiasm for the new tool and onboarding on their own the clients to perform the interpretation, despite they know it can affect them. In reality, this type of technologies, enhancing automation, are not tackling the fulfilling jobs, that we usually pursue, rather the ones low added value for the operator, resulting in frustration and disappointment.

In our case, the FTE saved can be move to other positions and upskilled to perform other tasks and some of them will be trained to master the Badgebox rules interface to create the initial set up for each client in the fastest way possible.

3.1.2 Satisfaction of Candidates and Clients

In this project the benefits were not only on the Adecco side, quantitative benefits most internally but when it gets to qualitative especially Clients and Candidates are impacted. In fact, imagine that before the Adecco Mywallet App clients had to send manually via pdf the timesheets to the SSC, wasting some time in reviewing and scanning them, now all is digital and immediate to approve, check and exchange. One of the best advantages is that the access can be done on every type of device, allowing managers to use the platform following their comfort. We have to consider that all the activities related to the associate management are very painful on the client side, since they often see the associates not as internal workforce, rather as external that Adecco has to control. We fall into the grey-zone of who should manage, the clients since they see and present or Adecco? Theoretically speaking, associate are human people, that have to be managed by the clients when it is about hours, shift, leave management, because it affects their productivity and for the rest it is on Adecco, unfortunately every client sees this differently. Therefore, the goal of Adecco has been to minis the effort on the other side and this platform really accomplish that and satisfies most of the counterparts.

When it comes to the associates, at the beginning it has been not easy to communicate and promote the adoption, the average age of the associate is 30 plus years old, meaning that their digital level is not very high, even if the stats shows a strong present of smartphones. Following the known adoption curve, overcome the first phase, people result to be satisfied and happy about the solution, allowing them to easily manage their hours and requests, finally empowering them to understand what they are using and have done. Then the review of the process gave them more assurance about the approval or requests, because the three days cut off allows them to clearly see if they can stay home or not, rather than risking a recall.

3.1.3 Badgebox around the globe

In the document we have only spoken about the opportunities that Badgebox is making possible related to the Italian market, the reality is that the Startup is already present in few other countries and in some is going to enter thank to Adecco. In fact, Adecco as a brand has a global coverage and across countries is always sharing the same challenges and issue when we speak about candidate management. Whenever the country or the language spoken is, no matter what the time capturing have to done as well as the time interpretation, whatever the legislation is. Of course, there are difference, to mention one the main issue in Italy is Time Interpretation due to the complexity we have seen, in the US the complexity stays in the Time capturing because clients are using their own systems that need to be integrated with the Adecco one to achieve an STP.

Generally, in Europe, countries are more similar, especially in the Mediterranean countries the problems appear to be the same and start changing going up north towards the Nordics. For this purpose, while I was part also of the CIO office I had the chance to present, promote and then launch the Badgebox solution in other countries that today have taken on the pilot and transformed it into a project. We started with Romania, which I was not part of the Demo team but then I took over in November Poland first and then Czeck Republic together with Slovakia since they are managed by the same team. I also performed some Demos for the Middle East, speaking about Turkey and United Arabic Emirates. However, the most important follow up that I had is related to the US, because even if I have changed role, I also supporting this area always in technology, the project came back to me after a couple of month for the RFP they are conducting of Time Capturing this time. They are looking at the platform for both General Staffing (Adecco) and the Professional Staffing brands that are selling as well temporary services, therefore they need to do time capturing and interpretation in the classic way.

I am willing and proud to help, the project in Italy was for real the proof of concept that now can be escalated by the Group at a Global level, since many other countries can benefit from it and use our experience to build easily and faster to deliver on time and on budget. My experience can serve as facilitator for other countries to set up the proper relationship and quickly make them understand each other in the initial phases at least.

The most recent update is that we are evaluating the integration with a blockchain platform to enrich the value added with also the final payment of the associate directly after the time tracking.

3.1.4 Impacting cash flows

One of the unexpected benefits of the Badgebox implementation is on the treasury administration. In fact, during the analysis it has not been taken into account that the impact of the invoicing and payroll cut off strongly influences the cash flow of Adecco. To better understand this let's do some steps back. One the advantages that the sales team has told me during my time in Adecco is clients take advantage of outsourcing

people because they can basically pay them like a normal bill, within a 60 days' time like it happens for utilities and goods, instead people must be paid at every month end.

Buying Adecco services means hiring people, with an external vendor that is providing a service, in these case labor, but with the possibility to pay afterwards, since the real employer, from a regulatory stand point, is Adecco. Therefore, Adecco every month, independent from the client invoice and payment must pay the associates and may wait months before collecting the corresponding amount. It is clear how Adecco acts more or less like a bank, lending money to the clients through people, somebody claims that in reality these is of the real value added for clients.

In reality for Adecco this is another complexity to sort out, since it is constantly living on the passive-active balance sheets with its contracting banks, thanks to its solidity and stability it now has no problems in having debits and credits. However, a better management of timing and resources can make the company save some interests expenses towards the banks during a year, since we speak of daily millions of euros exchanged on average. Therefore, if the situation now is, we pay the associated the 5th of June and we emit the invoice the 10th of June and it gets paid after two months, on the 10th of August, it means that Adecco, for that specific associate had to wait for 65 days the credit. Even if it has good interests rate with the banks, we are still speaking of 65 days of interest for an average amount of thousand euro, if it doesn't seem much multiply it for around 40 thousand associates and here you have a huge amount of credit and debit. Now, a precise analysis has not been conducted to understand the impact but imagine that with Badgebox we can save only three days within the invoicing time, we have already 3 days less of interests to pay.

The significant impact will come if, thanks to Badgebox, we would be able to predict the invoice few days earlier, sending it to the client, consolidate it at the month end and reconcile, but still we might get up to 10 days of saving. Suppose to have a 1 euro per associate saved per month, multiply it for 40 thousand, we have already 40 thousand euro per month of pure Ebitda margin added.

3.1.5   Impact Estimation

One of the takeaways that most surprised me is how such a simple optimization the beginning of the chain can have increasing effects by going into the process, especially I haven't imagined that engineering principles related to manufacturing can be implemented in such a similar way in the service sector, even more in the Human Resource sector.

I always used this metaphor, saying that a process of manufacturing or whatever production is a whip, when shaking it on one side you generate a loud snap at the end of the whip. Here is the same, small shakes at the beginning of the whip, with demand oscillation, lead to high peaks at the end that have to manage by major efforts respect to an initial stop.

In our case this is translated into many timesheets coming in different ways, managed well but not in the most efficient way, provoke issues in the final step of the process when elaborating the hours, because inevitably the operators have to wait the resource to start working. To forecast the impact of the implementation of Badgebox on the demand curve during a month I have conducted a simple study on the total timesheets collected by the SSC and that were correctly qualified in September 2018, at the beginning of the launch. I used the term demand because here the timesheets coming mean elaboration and so a single product processed by the SSC dedicated to Time Capturing and Interpretation, then they are aggregated when invoicing and payrolling. Demand also because, they are resources yes, but also determine the output to respect, we can't stock payslips or invoices.

Starting from some general assumptions: the timesheets methodologies have been classified in four main categories, regardless the type, whether if paper or electronic, only the frequency under consideration. Therefore, the monthly sources are assumed as received daily, the weekly on a weekly basis but the following week, taking into account some contingency, divided on two days and not one. The fortnightly is received every two weeks and the following week, again on two days for contingency. Last one, the monthly is collect at the end of the month, with more contingency due to client missed deadlines, for this reason they are spread on four days. The assumption have been made to simply the explanation, as well as, a study of this type has not been performed on the Shared Service Centers, regarding the timing of collection.

In the graph below (figure n. 41) is clear how the demand of the timesheets is completely unbalanced during a month, concentrating the arrival on few days during the weeks, in general every beginning of the week and the last ¾ days of the month where all the monthly timesheets are sent to Adecco.
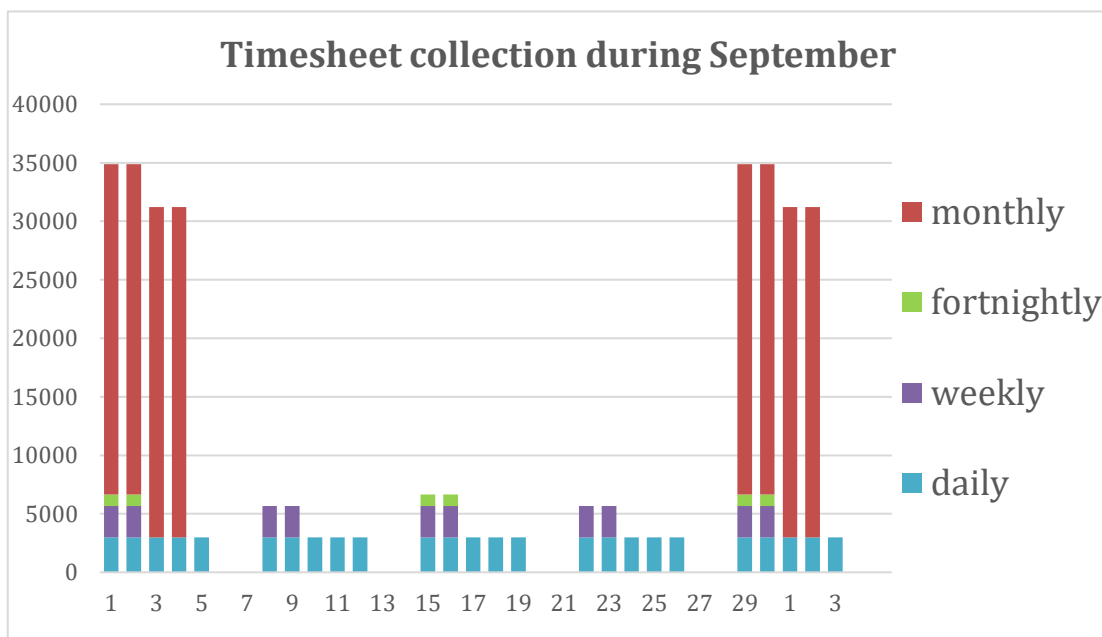

Figure n. 41 Timesheet collection graph in September 2018

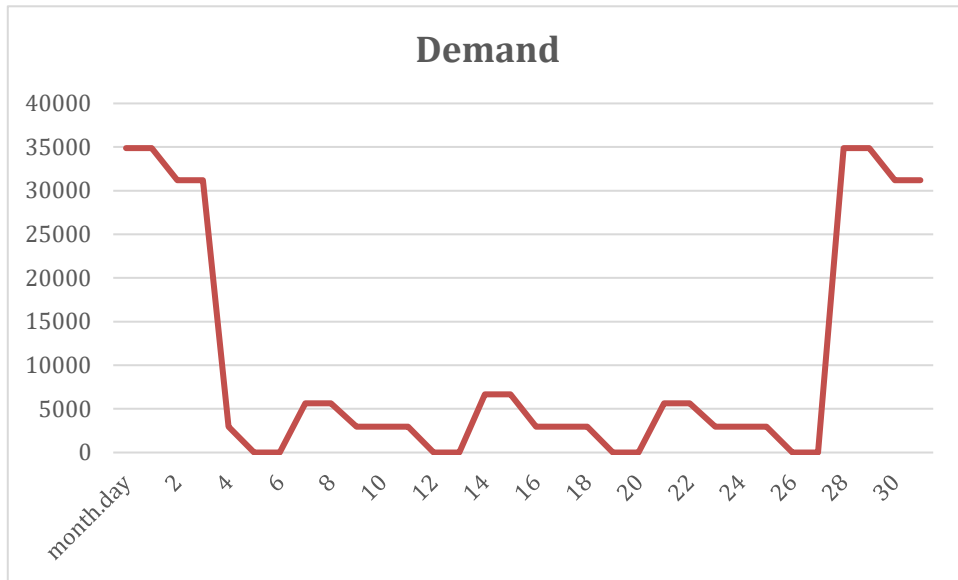The cumulated trend of arrival is showed by this curve (n. 42).

Figure n. 42 Arrival Trend in September 2018

While in the figure number (n. 43) is represented the single curve per each frequency, highlighting how the single methodologies are very different in terms of frequency of course and in terms of quantity. We can easily say that the issues are mainly cause by the monthly collection which is not only the less optimized in terms of timing but also in the volume, since they the half almost of the timesheet sources.
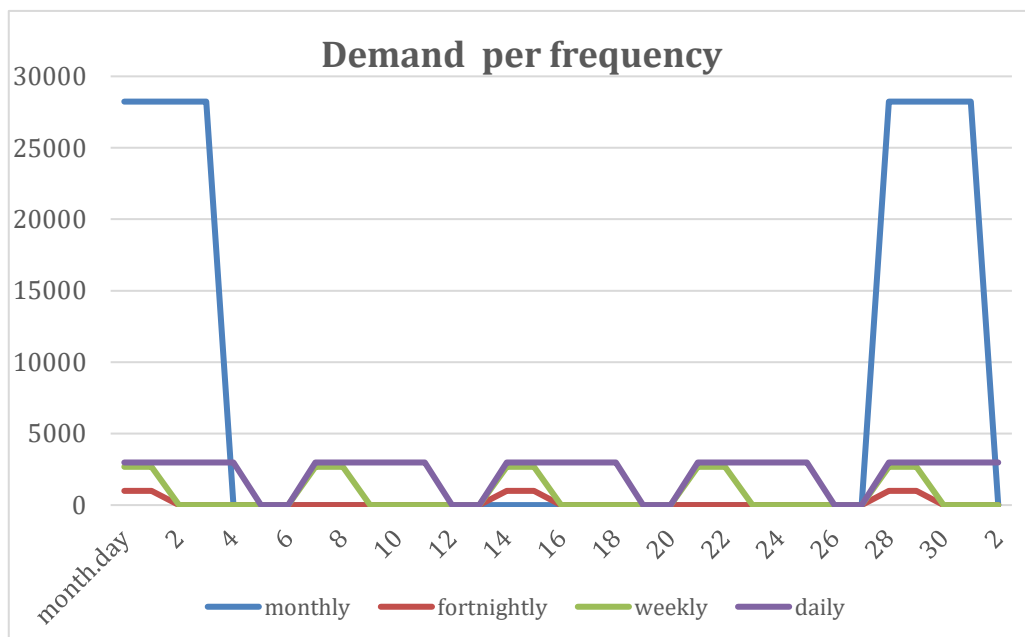
Figures n. 43 Demand Management per Frequency collection

As already said, these are not resources to be stored as it happens in a warehouse, therefore the difference is relevant compared to a production line, otherwise we could

have applied an MFRP exercise as we do in logistics and planning. Consequently, the oscillation is transferred to the Shared Service Centers that acts as smoother of these changes, responding with an increase in personnel.
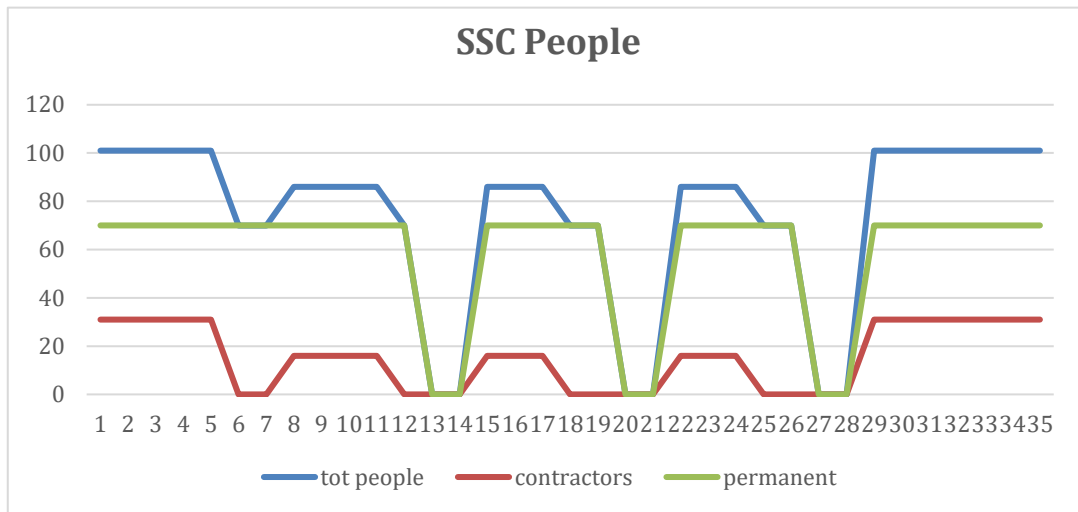

Figure n. 44 Shared Service Center Workforce Variation

Looking at the lines in the graph n. 44 is evident how the flow is predictable month by month, since it almost an early pattern, but taking into account the extra cost of labor to be add for the contractors, is clear that the situation in not sustainable in the long term. The solution is not scalable, in decreasing it is till we reach the number of the 70-permanent people, when increasing volumes, it is not, since we have to add extra people every week. In addition, we are also making the SSC work in the weekends (see day n. 6, 7, 29, 30) to be able to deliver both payslips and invoices, something very negative for the team, that together with the pressure is threatening productivity and employer branding.
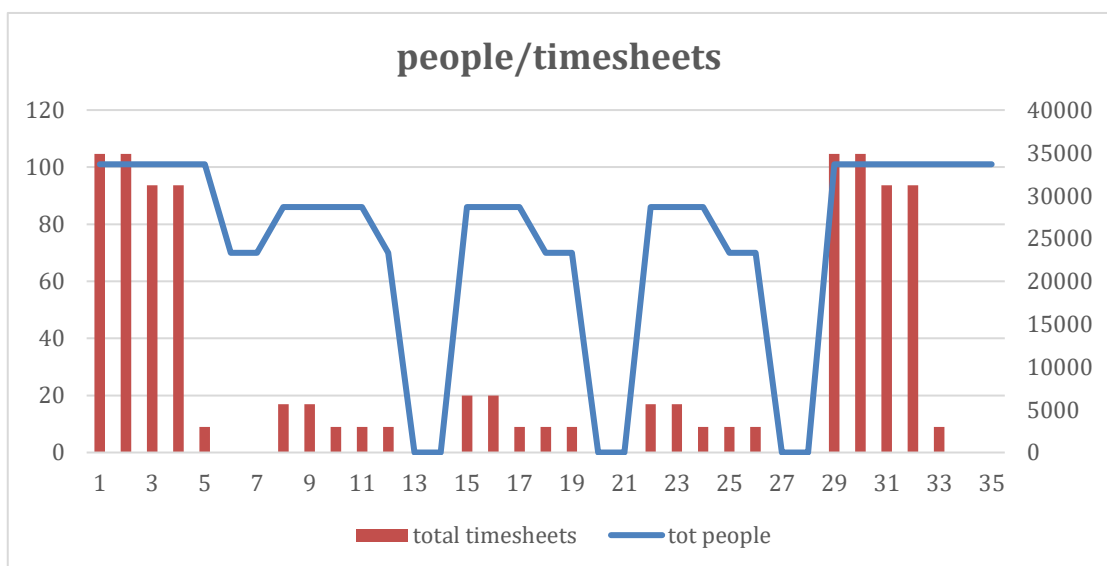

Figure n. 45 People and Timesheet correlation

To conclude the analysis in the last figure n. 45 we have the correlation between the number of timesheets and the number of people needed to process all these data. Every time there is a peak in the demand on timesheets we have a peak in the number of people, rumping up and down continuously within the same month.

We can say that the analysis conducted show two main problem in the process that need to be fixed:

1. Frequency of data arrival
2. Dependency on manual work rather than automation

Basically, these are the two that have been addressed with the Badgebox project. In the next chapter we will see how it is impacting and will impact the Back Office in The Adecco Group.

3.1.6 How demand and supply fluctuation can be managed with digital tools

How 24/7 platform can create productivity by a better scheduling when producing payroll and invoices for candidates and clients since the demand was varying month by month, but this was not the problem it was the supply of information needed to accurately calculate wages and invoices because they were dependent by client's times and needs. Availability of data, creating a dashboard for candidates, clients and especially Adecco itself to monitor and gather data

Following the two-main issue that we wanted to target, the initiative should solve on one side the dependency on clients for data and the dependency on a manual process in the Shared Service Center, that as we have seen are strongly correlated. To compare it with a manufacturing process, we want to improve the scheduling and create more efficiency in the machines and train operators.

Recalling at the statistics presented when detailing the Time Capturing, we have 44% of the timesheets coming via paper and the majority of them have a monthly frequency, as it is reported below in figure n. 46 they are around 75% of the total papercards.
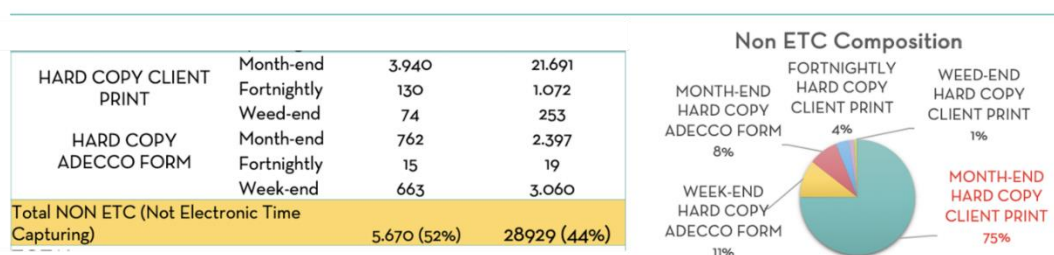

Figure n. 46 Time Capturing Overview

Therefore, tackling the 21691-monthly client copy will give the best results with the minimum efforts, of course during time the scope is to eliminate all of them but choosing where to start, these are the ideal to have immediate results. Another key element is the number of clients that are using this methodology, that are almost 4000 clients that have characteristic to be SME with less negotiable power with Adecco since they have only 1-5 associates working for them. We believe it has been easier to target them with the App which is easy to implement, to use and to promote and so it was.

Even though the roll out of the project has reached only the half of the objective percentage of timesheets, the benefits are already presented and proving the impact of a platform in the flow of the demand. In the image n. 47 are represented the same curves as above, showing the difference with the peaks caused by the monthly cards that drop of 20% from September to May, passing on Badgebox. The estimation done in the analysis is that the peak drops from a 35000 timesheet per day to 25000 timesheets, thanks to a significant 10000 drop per day that are managed daily, the left are still comprehending some papercards that will be addressed in the second step of the project, dropping to 15000 timesheets. This bundle will be hard to be eliminate due to the dependency on client's systems like the VMS, EDI and the Excel uploads that come on a monthly basis. On the bottom of the columns we see an increase in the daily area that cuts the peaks distributing the work on the whole month rather than a week.
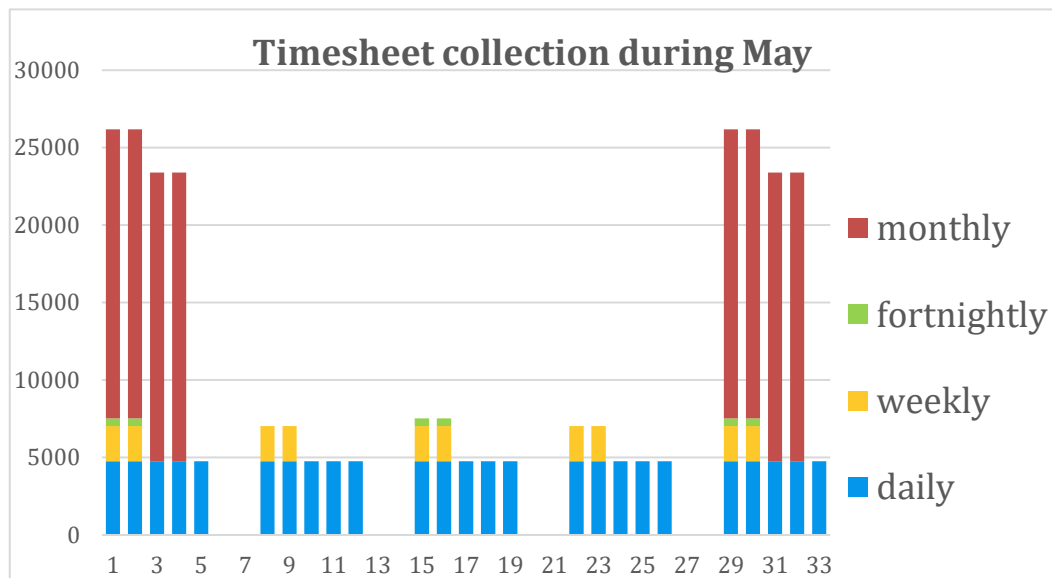

Figure n. 47 Timesheet collection graph in May 2019

The estimation has been done on the fact that the data coming from Badgebox is received daily and not as it is today. We explained before AAGP is a showstopper for this and we had to builds a workaround, making the export happening once per week rather than daily, but still is a temporary solution.

Potentially the graphs could have a total different aspect in a year, imaging that we can attack another portion of the monthly timesheet, dropping the rest to a minimal number that will be kept, like excel uploads that dependent on large clients, anyway these are

easy to upload and with one file you may insert hundreds of associates and already interpreted. Before we spoke of dropping to 15000 timesheets, reducing all the paper cards to almost zero, we saw another bucket for improvement and then the to be scenario can be to have left only 10000 timesheets received on a monthly basis and all the rest on a weekly and daily basis.
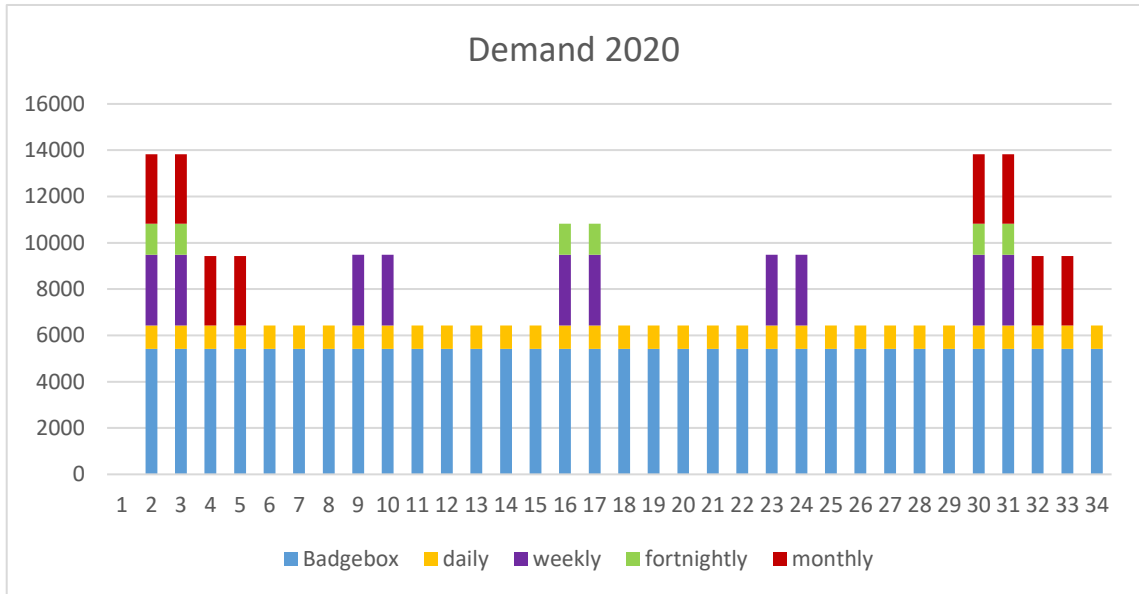

Figure n. 48 Timesheet collection graph in May 2020

This scenario will allow to distribute the workload in more optimized way among the SSC resources, resulting in reduced extra time, weekends in the office, stress and quality of environment, consequently enhancing quality by reducing errors.

4 Conclusion, Learning and Acknowledgements

When I was going towards the end of my responsibilities on the project I started realizing how it has been a great experience and gave me lot of teachings. After more than 9 months, looking back at the day in which I started working on it, where I had no background, no experience, no knowledge, the level that I had reached is really surprising me. Especially thinking about that all that I have learned I did it thank to the people I was working with and my attitude,

. because nobody gave me a proper induction, it was more a seeing and learning on the way. I believe this is a great technique to put somebody on a new topic but still it is strictly dependent on the person we are taking about. In my case, knowing my dynamicity. It was the best choice, I saw it as a challenge with myself, keeping up and getting to the top of it in the shortest period possible. For sure this requires many sacrifices, because you will run fast, and many failures, since the chances to pick up the wrong decision are higher. I always felt all these stimuli as the motivation to do better and better in my daily activities, because I am that kind of person. If one day I would be on the other side I will analyze carefully the attitudes and soft skills of the Project Manager or whatever other person to involve from zero, the match among topic, methodology and person can make either the difference in the project and its success either the failure and frustration for the team.

Another interesting achievement for me was trying to get into the logics and semantics of IT and technology world that haven't been familiar too. Looking at my school background, it should not be the most suitable person for this department, but soon I realize some competences are very adaptable and can basically fit every activity if used properly. In fact, you look around the open space in which I was seating only half of the people have the proper academic education to perform these kind of activities, the rest of them were not even engineers or computer science experts, rather they have a business background.

This helped my proving the major you decide to pick up in the first place, when exiting secondary school, first will not mark you forever and rather education is more about the methods and the approach that gives you rather than knowledge most of the time. Even if the courses I have attended were touching some topics related to the more technical aspects of my job, there haven't given me such a solid basis were to more from, I had to use the blocks I have comfortable with to find the others during the way, to build a consolidated structure.

Here I found that the approach of problem solving and of collecting information have been fundamental, allowing me to steal the part I needed from others who knows better than I did. In this process watching is the starting point and is the reason why whenever you start a job you start watching and then asking.

Overall the Politecnico helped me by giving the right tools to make the best out of the few elements and resources I was able to access to. In addition to this, having chosen

the course of Industrial Production favored me in some ways that I didn't expected. One of the concerns that usually is affecting us as students, is to lack of a specific vertical to which we belong to and in which we can recognize ourselves, because the course has a broad spectrum and covers many topics but staying on a high-level view.

This creates a unique 360 degrees oversight, that help us to understand every type of task and equipped us with a multiple set of competence. However, the market is expecting from us, as engineers, we are always marked as that, to be very technical and specific, able to dive into one theme and leave the rest out for other. While we have no specificity, but we have a strong capacity of adapting as it is required in certain role that are not created for a single professional figure and usually are newest position created in the market. In fact, I found myself many times out of the context, without the background to understand and to float, but the ability to ask and look for the resource made not to drawn and to navigate the closest harbor or milestones.

I used to tell my friends and people around me that you can have as many courses as possible on project management, but there is no way or method that can substitute the throw in the dark of the first times. These are the ones that make you complain and sometimes stressed but at least make you try, do mistakes, fix them and finally learn. The practice shows you the tricky points of the project management, that are not the technicalities (in my case at least) but the people you work with, the environment and the culture you are immersed in.

The final statement that I want to make is that, the only way to learn is to try. We are always afraid to make mistakes, but they are normal and human. We should be afraid of not doing mistakes, because that would mean that we are not learning anymore.

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