

WHITEPAPER

# LEVERAGING RESTAURANT TECHNOLOGY TO IMPROVE PERFORMANCE

---





# Introduction

Over the past 20 years, we have seen restaurants move from almost entirely analogue to becoming increasingly digitised.

Fast-forward to today, and it's fair to say we've come a long way. Recent developments during the COVID-19 pandemic have further accelerated this digitisation, with some analysts suggesting that we may have seen the adoption of customer technologies propel to the equivalent of over 10 years of organic growth. This proves the age-old belief that adversity drives innovation.

In this whitepaper, we'll share an overview of how restaurants around the world are becoming digitised, with some outstanding examples of the most recent innovations and the suppliers behind them.



## What do we mean by restaurant technology?

There are many categories of restaurant technology, but they can be loosely defined in the following three ways;

- ✓ POS (point of sale) and payment: *solutions that are used to process and record transactions and take payments.*
- ✓ Customer technology: *solutions that are accessed by customers directly.*
- ✓ Management tools: *solutions that are used to aid the management of an outlet.*



## Why do restaurants use technology and software solutions?

Most professionalised and multi-site businesses turn to hospitality technology and software solutions to fulfil many different requirements and streamline multiple areas of their business, the main objectives are to;

### IMPROVE GUEST EXPERIENCE BY:

- ✔ providing additional services to guests
- ✔ overcoming pain points in the customer journey
- ✔ improving the service a guest receives

### REWARD LOYALTY BY:

- ✔ encouraging repeat visit through discounts and offers

### INCREASE SPEND BY:

- ✔ improving spend per head by encouraging upselling
- ✔ upskilling teams around product knowledge
- ✔ reducing friction to enable easier reordering

### MANAGE COSTS THROUGH:

- ✔ managing labour
- ✔ controlling purchases and calculating costs
- ✔ prevention-based maintenance management
- ✔ better stock control

### STREAMLINE PROCESSES BY:

- ✔ reducing admin
- ✔ ensuring key tasks are completed
- ✔ staying compliant
- ✔ reducing paper and manual entry

### UNDERSTANDING AND ENGAGING CUSTOMERS BY:

- ✔ collecting guest feedback and communicating with guests
- ✔ Testing new products and monitoring consumer behaviour

### ENGAGING TEAMS THROUGH:

- ✔ digitising team communication
- ✔ employee sentiment analysis
- ✔ enable them to self-manage their data and simplify requests
- ✔ reward and recognition



TECHNOLOGY TO IMPROVE  
GUEST EXPERIENCE



## SMART TABLE RESERVATION SYSTEM AT INCEPTION GROUP

Nowadays, guests have a few expectations when booking a table. Not only do they want a seamless experience from the moment they book to the end of their meal with as few interactions as possible, but they also expect real-time waitlists, reviews and recommendations from other patrons, and an option to make their preferences known.

Using an online restaurant reservation system gives customers the freedom to make a booking whenever they like without having to call you. And a seamless and fuss-free customer journey also helps restaurants increase their online bookings.

Inception Group, a restaurant group with 9 properties across London, has managed to increase the number of online bookings they receive by 20% since implementing an intelligent reservation system. As their reservation system partner, Seven Rooms, integrates with their POS system, they can also offer a much better customer experience by knowing the customers spend history and preferences immediately after they've made their booking.



“Increase of  
online bookings  
by 20% since  
implementing  
an intelligent  
reservation  
system.”



## MCDONALDS IS LEVERAGING DIFFERENT TECHNOLOGIES TO OPTIMISE ITS OPERATIONS AND OFFER ITS GUESTS A MORE SEAMLESS EXPERIENCE

McDonald's is a big investor in tech, especially as it helps improve efficiency in the kitchen and speed of service at the drive-thru.

Its acquisition of Apprente is expected to lead to voice-based conversational capabilities at the drive-thru. It has also been testing automated fryers and beverage equipment to make jobs easier and allow staff to work in other areas in the restaurant.

### Self-service kiosks

McDonalds is also setting a new trend with self-service kiosks. They speed up the service with a significant reduction in order taking time. Kiosks are versatile systems that enable customers to customise their orders and use their preferred mode of payment. They also cut down long waiting time in queues, even during peak times, and direct more customer traffic. This results in an increase in sales. A full display of the entire menu in a single click and the

simple and convenient ordering process also drives upselling. These systems also provide real-time insights about customer preferences. All the data is well synced with the POS terminals. Restaurateurs can easily determine what is working well and make improvements to overall services.

### Digital menu boards

McDonald's has rolled out digital menu boards powered by Dynamic Yield's machine learning technology at 700 US locations. The QSR acquired the personalisation and decision logic technology company earlier last year. Dynamic Yield's technology varies the company's suggested offers depending on the time of day, weather and trending menu items.



Through machine learning, the technology will get smarter. Thanks to the data they are collecting from millions of customers at drive-thru, the technology will begin to suggest items that can make peak times easier for the restaurant crew. Once their entire tech ecosystem is interconnected, it will work across all McDonald's platforms, providing customers with a seamless ordering experience.

Digital menu boards and self-ordering kiosks are part of the brand's Experience of the Future (EOTF) restaurants. In the US about 60% of stores, approximately 8,000, have adapted to the new format.





DIGITAL-ONLY RESTAURANT

## DIGITAL-ONLY TACO BELL CANTINA IN TIMES SQUARE

The first of its kind, digital-only cantina has officially opened in Times Square. It uses automated kiosks to take food orders.

The digital-only set-up of this location allows for easy pickup. Digital order pickup cubbies mean guests can easily grab their food before heading out the door. Food must be ordered through the app (there are no menu boards in the restaurant), then picked up from one of the cubbies.



“Digital order pickup cubbies mean guests can easily grab their food before heading out the door.”

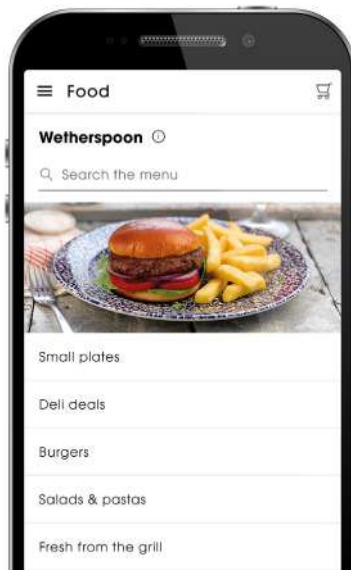


## ORDER-AT TABLE APPS

### **ORDER WITHOUT LEAVING (AND POTENTIALLY LOSING) YOUR TABLE AT WETHERSPOONS**

British pub chain Wetherspoon has created their own app that guests can download to their phone, and which enables them to order and pay for their food and drinks without leaving (and potentially losing) their table.

This is much more convenient for the customers as their food and drinks arrive faster. In addition, the pub company has managed to save on labour costs, as customers self-serve by ordering which increases the average check amount as people can easily order refills without having to find a waiter in a busy pub. They can also get to know their customers better through the data collected by the app.



“Customers self-serve by ordering which increases the average check amount as people can easily order refills without having to find a waiter in a busy pub.”



TECHNOLOGY TO HELP YOU STREAMLINE PROCESSES - COMPLIANCE SOFTWARE

## ESPRESSO HOUSE STREAMLINES PROCESSES AND STAYS COMPLIANT WITH DIGITAL CHECKLISTS AND PERFORMANCE TRACKING

Nordic coffee shop chain Espresso House, which operates over 550 coffee shops in Sweden, Norway, Denmark, Finland and Germany have implemented GetCompliant to digitise their operations, make sure they stay compliant and ensure an excellent guest experience across all their locations.

The staff follows digital operating procedures and control processes on mobile and tablet, and the tool is the same for everyone across the business, from trainees to CEO. Streamlining their processes has enabled Espresso House to save a substantial amount of time, equivalent to 900,000 €/annually.



“Stay compliant and ensure an excellent guest experience across all their locations”





## RESTAURANT ROBOTICS

Another exciting development in customer-facing restaurant technology is in restaurant robotics. Rising labour costs together with an industry-wide labour shortage, skyrocketing rents and huge employee turnover issues have led some restaurateurs to try and automate the more tedious, repetitive restaurant tasks and systems to reduce how much they spend on labour.

Robot restaurants can be fully automated, providing each service through an AI-enabled robot or cobots, which means they are doing only part of the job and still need human assistance.



## ROBOTIC KITCHEN

### ROBOTS COOKING UP FOOD AT SPYCE RESTAURANT

Spyce restaurant in Boston is the industry's first fast-casual restaurant with a robotic kitchen.

A small team prepares the ingredients in an off-site kitchen, but all the actual cooking is done by in-store robots that prepare the dishes guests order at kiosks. Spycy also has two human in-store employees to provide customer service and to put finishing touches on all dishes.



BIONIC BAR

## A ROBOT BARTENDER ON MSC CRUISES CRUISE SHIP



MSC Cruises has developed a humanoid, robotic bartender at the MSC Starship Club onboard its newest ship, the MSC Virtuosa.

Called Rob, the robot will mix and serve both alcoholic and non-alcoholic cocktails while engaging with and speaking to guests and using human-like expressions, according to MSC. Rob can speak eight languages, and the guest can choose one when placing the order. It can transmit "emotion" so guests can enjoy his performance along with their cocktails.

Guests will be able to order from specially designed digital cockpits. Rob will then pour, shake, stir and garnish accordingly. Cocktail preparation status will be displayed on digital monitors and a ticker-tape style LED strip above the robotic island. The cocktails will be served in futuristic glasses that guests can collect.



"It can transmit *emotion* so guests can enjoy his performance along with their cocktails."



“That creativity is especially important now that consumer interest in takeout and delivery has seen a 148 percent increase compared to pre-pandemic levels, according to Yelp data.”



## DRIVERLESS DELIVERY AND EBIKES OPTIMISE THE DELIVERY PROCESS AT DOMINO'S

**Before eBikes and driverless delivery, third-party services like DoorDash and UberEats were vying for Domino's delivery business.**

According to TechCrunch, “Domino's could never offer enough menu options to compete with DoorDash or UberEats, but it can compete on service and delivery times.” Now that most restaurants are offering delivery, Domino's is more than willing to get creative to stay ahead of the competition. That creativity is especially important now that consumer interest in takeout and delivery has seen a 148 percent increase compared to pre-pandemic levels, according to Yelp data.

So, Domino's invested in two digital-first innovations to make the delivery process smoother (and to stay ahead of the competition): delivery via autonomous vehicle and delivery via electric bike. In 2019, the digital sales resulting from these innovations represented “more than half of all global retail sales.”

Domino's partnered with Ford to launch autonomous (driverless) delivery in 2019. The car, called Nuro R2, travels at 25 miles per hour to designated delivery zones in Houston, Texas. Customers who opt for autonomous delivery will be issued a code to tap into a screen on the outside of the vehicle to access their order.

Domino's also partnered with Rad Power Bikes in 2019 to launch delivery by eBikes. One bike can hold 12 large pizzas, and it tops out at 20 assisted miles per hour. In some markets, like Seattle, bike delivery mitigates parking issues—and electric assistance helps couriers speed-up the process. Customers can track their Nuro, or eBike delivery, through the Domino's app, just like they would with any other food-delivery app.



## LAST-MILE DELIVERY WITH DELIVERY ROBOTS IN UNIVERSITY CAMPUSES

**UCLA uses autonomous robots to deliver food from campus restaurants to any location on campus.**

The robots, designed and operated by Starship Technologies, currently deliver from Blaze Pizza, Southern Lights and Bruin Buzz for a delivery fee of \$1.99. Anyone on campus can download the Starship Food Delivery app to order food and have it delivered to any location on campus. In addition, in UC Berkley Kiwibots delivery robots are conducting last-mile delivery with grocery items and food from restaurants in the campus.

The benefits of last-mile delivery robots are convenience and cleanliness — they are reliably fast, avoiding traffic by cruising city sidewalks by themselves, and since there’s no human contact, they are safer for customers during the pandemic. However, their delivery radius is extremely limited. Kiwibot can travel up to a one-mile radius and Starship’s maximum radius is from three to four. Secondly, getting approval to roam the city sidewalks can still be a challenge for the delivery robots, with cities setting limits on how many robots are allowed on the streets. So, they aren’t yet a perfect solution for restaurant owners looking to cut delivery costs.



“They are reliably fast, avoiding traffic by cruising city sidewalks by themselves.”



DELIVERY DRONES



## CAMILE THAI DELIVERING BY DRONES IN IRELAND

**The first non-beta drone deliveries of restaurant meals could take off this year through an ongoing partnership between Camile Thai and Manna, both based in Dublin, Ireland.**

So far, initial tests suggest drone deliveries will cost the restaurant about half of what it normally spends through its in-house car delivery fleet. With a maximum payload between four and five pounds, Camile expects to be able to send two of its main courses through the air directly to designated landing pads or customers' own backyards.

Customers who are currently presented with the option of a drone delivery will receive a Google Earth satellite image of their property, broken into quadrants, where the customer can select which part of the yard or property the drone will deliver to. After a quick flight, ideally limited to just three or four miles, the drone then lowers the parcel down to the customer on a biodegradable line. Being able to bypass red lights and traffic, the company expects much quicker deliveries in comparison to car-based service, which should improve the economics of delivery, while also resulting in happier customers.



“Drone deliveries will cost the restaurant about half of what it normally spends through its in-house car delivery fleet.”



TECHNOLOGY TO INCREASE CUSTOMER LOYALTY AND MANAGE REVIEWS - ONLINE REPUTATION MANAGEMENT SYSTEM

## LA MAFIA IMPROVES SERVICE, MENU PLANNING AND TEAM ORGANISATION THANKS TO DATA COLLECTED FROM ONLINE REVIEW PLATFORMS

La Mafia se sienta a la mesa has 52 restaurants all over Spain. This young and dynamic franchise group is in constant expansion with the aim of becoming an international lovemark.

La Mafia's committed team strives to capture their customers' emotions, touch their hearts through excellent customer service, and is consistently developing new products and adapting to new trends.

### Monitoring emotions through customer reviews

For a company that wants to capture people's emotions, monitoring customer reviews is a top priority. But as important as this was to La Mafia, it took up a lot of their management's time. So, in 2019, La Mafia joined forces with Reputation by MAPAL to help them make their customer review management process smoother. Through the platform,

management can visualise all reviews posted by customers via diverse platforms such as Google, Facebook, Tripadvisor, Instagram, Yelp, The Fork, JustEat and Deliveroo.

Today, 48 of the company's employees use the platform to monitor reviews for the brand's different restaurants. In just over two years, the platform collected a staggering 93,000+ reviews.

### Spotting trends to continually improve service

Keeping track of both positive and negative customer reviews has enabled the company to spot issues that often go unnoticed from an inside perspective. Reputation's user-friendly dashboard displays trends in



customer sentiments which alert them to potential shortcomings. They can quickly pick these up, reply immediately and use these insights to improve their products and services. It also works both ways: when customers write glowing reviews, this helps La Mafia understand what customer really value the most. Positive reviews that praise the service received and often mention a specific member of staff serve as a huge motivation for the team as a whole.





## HONEST BURGERS USES DATA COLLECTED VIA WI-FI TO CREATE TARGETED MARKETING CAMPAIGNS

Honest Burgers offers delicious British beef patties made in its own butchery, as well as local beers from neighbouring breweries.

They have been offering Wi-Fi on their premises since 2018, and as such has built up a huge database of guest Wi-Fi data to use in their marketing and analysis projects. Covid-19 changed the normal landscape of hospitality operations and scheduled marketing campaigns. Honest Burgers wanted to understand if the data they have collected via Wi-Fi could offer some useful insights into their guests and their habits, to inspire a different kind of marketing activity. They turned to Wireless Social who, by analysing the data collected from public Wi-Fi, was able to create a snapshot of their guests, detailing the demographics of people that had visited pre- and post-covid, and they discovered a noticeable shift in the types of people eating out. This data and new information proved useful for Honest Burger’s marketing team to decide where best to focus their efforts to get the best results and ROI.



“They created a snapshot of their guests, detailing the demographics of people that had visited pre- and post-covid.”



## STARBUCKS: LEVERAGING DATA TO BUILD CONSUMER INTIMACY

Starbucks is well-known for its roasted coffee. But it's also a shining example of a successful, effective digital transformation. How can we possibly connect coffee and digital data?

Starbucks' customers generate 90 million transactions per week in almost 25,000 stores worldwide. Over the last couple of years, Starbucks started to accumulate and analyse this huge amount of data. It is now incorporating predictive data analytics into their marketing and sales efforts as well as supply chain management.

The most important part of that process is a mobile application and the Starbucks Rewards programme. The app allows for quick and easy payments. The loyalty programme rewards users and offers some additional features like a store locator and music recommendations.

Starbucks' "Digital Flywheel" is focused on four pillars: rewards, personalisation, payment, and ordering. It's a good example of a customer-first strategy. The app, together with a large loyalty

programme, addresses basic customer needs: convenience and queue avoidance.

The company has more than 14 million people signed up for its Starbucks Rewards loyalty programme. In 2017, rewards represented 36% of sales in US-based company-operated stores and mobile payments represented 30 percent of all transactions. In comparison, only 5.5% of Apple users use Apple Pay. Starbucks has enormous amounts of data about their clients. They can see what coffees their customers are ordering, how their taste changes depending on the weather or time of day and personalise their offerings accordingly. They can adjust their store assortment, manage inventory effectively, and optimise marketing materials. All these capabilities help to increase sales and cut costs across all the company's departments.





“Mowgli believes that if teams are to provide excellent service, they need to be amazingly well-trained and feel valued.”



TECHNOLOGY TO ENGAGE TEAMS - LEARNING MANAGEMENT SYSTEM

## SUPPORTING HOME-GROWN TALENT TO FLOURISH AT MOWGLI STREET FOOD

Mowgli is a healthy, home-style Indian Street food restaurant group founded by barrister turned entrepreneur and curry evangelist, Nisha Katona MBE. She opened her first restaurant in Liverpool back in 2014 and has since grown to 11 restaurants across 9 locations the UK.

The leadership team at Mowgli are focused on creating a fantastic place to work with team members feeling nourished, purposeful and fulfilled, while achieving everything they want out of their time with the company.

Mowgli believes that if teams are to provide excellent service, they need to be amazingly well-trained and feel valued.

Professional development is central to their industry-leading length of service record. They take a proactive approach, encouraging teams to take responsibility for their own growth, giving access to new training that builds skills and confidence and empowers them to be themselves and let their personality shine.

When hitting the milestone of five sites, the company recognised the need to enhance its people

processes, streamline onboarding and provide additional value-building training for its team. They partnered with Flow Learning to fulfil these objectives, to stay compliant and to also invest in team development.

### Flow as a learning and development hub

Mowgli likes to combine face-to-face training with online modules for a blended approach, ensuring that the learning outcomes are maximised with hands-on practice.

“With Flow, Mowgli can easily manage career progression and development so training managers can be sure that their employees are on track to fulfilling their ambitions.”





CASHLESS TIPPING SOFTWARE

## CASHLESS TIPPING AT PIZZA PILGRIMS MAKES IT EASY TO REWARD THE TEAM FOR A GREAT SERVICE

Neopolitan pizza chain Pizza Pilgrims, with 15 locations across the UK is using a cashless tipping platform that allows individuals and teams to receive cashless tips directly from customers, then distribute them transparently and fairly amongst the team.

It helps to raise team's morale, productivity and performance by enabling teams to receive and manage their tips via QR codes, NFC and contactless technology. Employers, meanwhile, will be free of the pain of handling card payment tips and will now be able to focus on channelling the energy of their newly motivated teams to grow the business.

“Employers, meanwhile, will be free of the pain of handling card payment tips.”



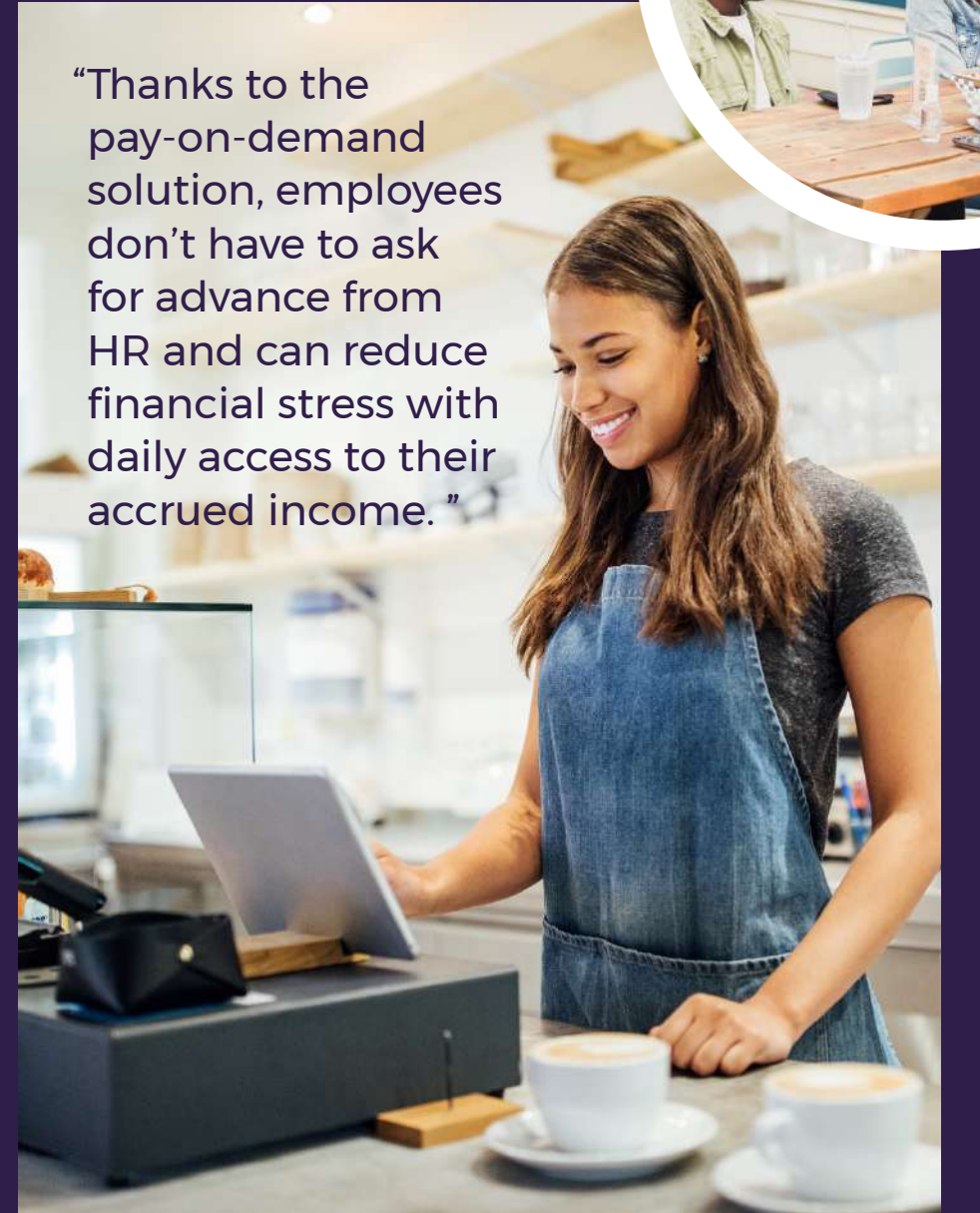


ON-DEMAND PAY

## ON-DEMAND PAY TO IMPROVE YOUR TEAM'S FINANCIAL WELLBEING

Workers in the hospitality and leisure sectors are said to have the lowest financial wellbeing score of 48. Financial wellbeing also affects absence rates, with 6% of workers having taken time off work in the last 12 months for this reason.

What can we do to support employees with their financial wellbeing? By offering the employees an opportunity to receive their salary earlier than payday. Asking for an advance can be embarrassing, but technology can make this a seamless process. Mapal has recently partnered with Hastee, a pay-on-demand provider. Hastee integrates with MAPAL's Workforce solution and the customer's payroll provider and can automatically pull worked hours directly from the system for accuracy. Thanks to the pay-on-demand solution, employees don't have to ask for advance from HR and can reduce financial stress with daily access to their accrued income.



“Thanks to the pay-on-demand solution, employees don't have to ask for advance from HR and can reduce financial stress with daily access to their accrued income.”



## CONTROL YOUR LABOUR COSTS BY USING WORKFORCE MANAGEMENT TECHNOLOGY

A lot of restaurant businesses today still use Excel spreadsheets to create schedules.

Not only does it consume a lot of management time, but there is also a greater potential for mistakes. This inevitably leads to over or understaffing which will negatively impact your sales and labour cost. By using a workforce management solution, you can save time on manual schedule creation, save significantly on labour cost and stay compliant. These systems consider all the legal and personal restrictions that may affect your employees' working time.



“97% of KFC restaurants in Spain use this workforce management tool with its industry-leading schedule optimisation engine.”



## KFC SPAIN REDUCED LABOUR COST BY 2.65% WITH THE HELP OF MAPAL WORKFORCE

KFC, a subsidiary of Yum! Brands, Inc., is a global chicken restaurant brand with a rich, decades-long history of success and innovation.

KFC Spain began its partnership with MAPAL in 2012 by implementing its workforce management solution in a few of its franchises. Over the next four years, the company gradually implemented the system in more and more franchises, and MAPAL Workforce became the company's preferred technology solution. Today, 97% of KFC restaurants in Spain use this workforce management tool with its industry-leading schedule optimisation engine.

Interfaces are in place with multiple

payroll and POS systems, avoiding double data entry and unnecessary administration tasks at site level or at the support office.

MAPAL Workforce has helped KFC franchises across Spain improve productivity by 2.9% and lower labour costs by 2.65%, supported by its optimisation engine. Franchisees have transparency and can remotely control labour across multiple sites. Managers reduce administration and the time taken to complete rostering.



## KITCHEN DISPLAY SYSTEMS

### DIGITAL KITCHEN “BOARDS” FOR MORE SUSTAINABLE KITCHEN OPERATIONS

You won't need to grab a pen and paper, worry about smudged printed tickets or run back-and-forth between the kitchen and front-of-house anymore.

Kitchen Display Systems (KDS) are digital menu boards for kitchen staff that help restaurants streamline back-of-house operations. Directly linked to the restaurant's point-of-sale (POS) system, the screen automatically displays the orders in order of priority and flag any special dietary requests. Tracking meal delivery times and monitoring inventory to signal when a product is out of stock, this technological solution ultimately ensures better communication, accuracy, clearer workflows and – being 100% digital – promises a more sustainable kitchen operation.

“Being 100% digital – promises a more sustainable kitchen operation.”





AUTOMATED INVENTORY  
MANAGEMENT SOFTWARE

## BIG MAMMA USES AUTOMATED INVENTORY MANAGEMENT SOFTWARE TO STREAMLINE KITCHEN MANAGEMENT

**Automating your inventory management means that tracking food and beverage stocks, anticipating quantities and even scheduling reorders no longer have to be tedious, time-consuming tasks.**

More importantly, the implementation of such software in your working process can also reduce food wastage, which is reportedly costing the hospitality industry \$100 billion annually.

French restaurant group Big Mamma has been able to cut its food costs by using automated inventory system Easily's. They had previously kept their inventory on paper and Excel tables, but having everything in one system has saved them a huge amount of administration time. The system has also streamlined communication with their suppliers, allowing them to seamlessly reorder ingredients once they are running low on stock.

Inventory management systems also help keep track of changing ingredient costs, enabling you to either swiftly renegotiate prices with your vendors or make changes to menu prices so this won't reduce your margins.

**“Inventory management systems also help keep track of changing ingredient costs.”**





## POWERING MULTI-SITE HOSPITALITY

Our solutions are live in over 45,000 sites in 54 countries



flow learning



workforce



compliance



facilities



reputation



cashrec



docs



analytics



teams

## TRUSTED BY THE BIGGEST & BEST HOSPITALITY OPERATORS





**DO YOU WANT TO KNOW MORE?**

---

[www.mapal-os.com](http://www.mapal-os.com)