

RESTwithEU: Guidebook

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1. Introduction

RESTwithEU is an 18-month project initiated by European Parliament and commissioned by the Directorate General of Communication Networks, Content and Technology (DG CNECT) of the European Commission to support the implementation of digital tools for tourism and, more specifically, the restaurant sector.

The overall objective of the project is to identify and develop digital tools and solutions that meet the needs and diversity of the restaurant sector and to promote innovation by generating strategies for the future so that the sector remains competitive and succeeds. This pilot project promoted by the European Parliament aims at initiating the development of user-centric digital innovations for SMEs in the restaurant industry around the EU for the following three topics:

- Changing leisure and travel behaviour
- New ways of working
- The sustainable management of food



1.1. Purpose of the Guidebook

To support the restaurant sector in this digital transformation, the European Union (EU) has launched a pilot project to develop and promote digital tools for small and medium-sized enterprise (SME) restaurants across the EU. Initiated by the European Parliament and commissioned by the Directorate General of Communication Networks, Content and Technology (DG CNECT) of the European Commission, RESTwithEU aims to develop and promote digital tools for SME restaurants across the EU. As part of this project, the current guidebook provides practical guidance and solutions for implementing digital tools in the restaurant sector.

The overall objective of the RESTwithEU pilot project is to identify and develop digital tools and solutions that meet the diverse needs of the restaurant sector and promote innovation. It seeks to generate strategies for the future to ensure the sector's competitiveness and success. The project focuses on three key topics: modification of leisure and travel behaviour, new ways of working and sustainable food management.

- **Modification of leisure and travel behaviour:** The project aims to

understand and adapt to evolving leisure and travel behaviours, particularly in the restaurant industry. By leveraging digital tools, the project seeks to support restaurants in meeting customers' dynamic expectations and preferences.

- **New ways of working:** RESTwithEU acknowledges the importance of embracing new ways of working in the digital era. The project explores innovative approaches and tools to enhance restaurants' efficiency, productivity and collaboration, enabling SMEs to adapt successfully to modern work practices and technologies.
- **Sustainable food management:** Recognising the significance of sustainable practices in the restaurant industry, the project emphasises the development and promotion of digital tools that facilitate sustainable food management. It aims to identify solutions that reduce food waste, promote responsible sourcing and engage in environmentally friendly practices.

This guidebook serves to support the digital transformation of SME restaurants across the EU and promote their resilience and sustainability by 2030. It aims to achieve this by providing practical guidance and solutions for implementing digital tools in the restaurant sector based on extensive research and testing

of existing digital tools and practices, as well as the development of new solutions during the project.

This guidebook is a valuable resource for restaurant owners, managers and staff interested in implementing digital tools to improve their operations, increase efficiency and enhance their customer experience. It will offer step-by-step guidelines on using digital tools in restaurants and highlight examples of successful implementation and best practices.

Additionally, the document aims to stimulate the uptake of digital solutions for specific challenges in the restaurant sector. It will present digital transformation steps for various restaurant types based on the existing tools and practices identified as well as the solutions developed during the project. The guidebook will also include a section describing 10 solutions identified and tested by restaurants in the project, with links to relevant sources, reference users, testimonials and tools.

What are the Contents of This Guidebook?

Within the pages of this guidebook, you will uncover practical solutions and easy-to-follow guidelines on how to successfully integrate digital tools into your restaurant operations. These tools and best practices will help you improve your operations and pave the way for

resilience and sustainable growth in the fast-paced restaurant industry. By implementing the strategies outlined here, you'll boost efficiency, adapt to changes and create a thriving future for your restaurant.

Moreover, this guidebook showcases the notable results achieved in the pilot project, with the ultimate goal of helping you, as restaurant owners, embrace digitalisation. By adopting digital tools, we aim to enhance the resilience and sustainability of the restaurant sector, promoting accelerated digitisation by 2030.

And that is precisely why, in the upcoming pages, we aim to:

- **Explain the significance of digital transformation:** This section explores the vital role that digital transformation plays in the restaurant industry, with an overview of the restaurant industry in the European Union, and highlights the challenges to digitisation that restaurants like yours encounter.

This guidebook provides valuable insights and practical strategies to support your journey towards becoming a more digital-focused establishment.



- **Enumerate the digital tools and practices already being used in the restaurant sector:** Here, you will learn about digital tools and practices already used in the restaurant sector. This includes examples of successful implementations and best practices shared by other restaurants and experts. The section aims to inspire and inform you on what has worked best for others.
- **Suggest solutions developed through collaborative innovation:** This section highlights the remarkable solutions that have emerged from a dynamic collaboration involving industry experts, restaurateurs and individuals with a knack for creating new products. This collaboration took the form of a hackathon, where innovative minds converged to develop new digital products designed specifically for restaurants.
- **Advocate pathways for implementing digital tools in the restaurant sector:** This key section provides step-by-step guidance on how to implement digital tools in your restaurant based on the piloted solutions in the project. You will also find real-world results and feedback from other restaurant owners who have already used these tools. Additionally, it offers best practices and tips for a successful implementation.

By following this guidebook, you will gain a complete understanding of digital transformation in the restaurant sector, learn about existing tools and practices, explore innovative solutions and receive practical guidance on implementing digital tools in your restaurant. It is an invaluable resource for navigating the great possibilities that digital transformation offers for your business.



1.2. Intended Readership: Who Will Benefit from This Guidebook?

This comprehensive guide is exclusively tailored to cater to the needs of restaurant owners, managers and employees seeking practical guidance and effective solutions for implementing digital tools within their establishments. In today's rapidly evolving business landscape, digitisation has become an essential requirement across all sectors of the economy. It not only enhances the quality of services offered but also ensures preparedness for unforeseen circumstances, such as the challenges that came with the COVID-19 pandemic. Digitisation is a pivotal pillar in making businesses more resilient and sustainable, aligning with the digitisation objectives set forth by the European Commission.

By embracing digital transformation, restaurants can unlock a multitude of benefits, including increased efficiency, improved customer experience and enhanced operational adaptability. This guidebook equips you with the necessary knowledge and practical insights to navigate step-by-step on the digital realm successfully.

Whether you are new to digital transformation or have already embarked on your journey, this guidebook serves as a valuable resource to further enhance your

Managers and staff members will also find this guidebook beneficial as it provides a comprehensive overview of existing digital tools and practices within the restaurant sector. By understanding the possibilities offered by digital solutions, you can contribute to the successful implementation and utilisation of these tools in your day-to-day operations.



understanding, adopt real-life examples and follow practical guidelines in addressing restaurants' unique challenges.

Regardless of the size or type of your restaurant, this guidebook will empower you to thrive in the digital era and unlock the numerous benefits of embracing digital tools.



1.3. Scope and Limitations: Methodology

This European project identifies best practices for the restaurant sector by focusing on three topics: modification of leisure and travel behaviour, new ways of working and sustainable food management, particularly food waste.

As the restaurant industry continuously evolves and grows, businesses must adopt practices that will enhance their performance and contribute to the overall sustainability of the industry and the environment. Hence, this project thoroughly examines and details the best practices that restaurants can adopt to effectively tackle these topics and maintain their competitiveness in the market.

The methodology employed in the project is distinguished by its defined structure and rigorous approach, all of which have been strategically crafted to achieve the project's primary objective - facilitating the digitisation of the European Union's restaurant sector. To accomplish this goal, the project has been subdivided into distinct work packages (WPs), each with a predefined working methodology. These methodologies are personalised to

efficiently gather a wealth of information regarding the digitisation of the restaurant sector within the project's specified timeline. The ultimate aim is to derive meaningful and pertinent conclusions to inform stakeholders for effective use. In the ensuing sections, we exhaustively present our project's methodology, elucidating the systematic procedures employed and delineating the project's scope and constraints.

WP1: Mapping of Existing Tools and GAP Analysis

In the initial phase, the project team conducted a high-quality mapping exercise of the existing tools and a gap analysis of the overall tourism ecosystem, identifying challenges and available solutions targeted at the SME restaurant sector. The methodology encompassed:

- A holistic examination of the tourism ecosystem, encompassing macroeconomic and microeconomic perspectives. This entailed scrutinising the socio-economic context, analysing the EU accommodation and restaurant sector and presenting relevant sector data.
- Active engagement with key stakeholders and industry players to ensure a comprehensive

understanding of the landscape.

- Utilising a data-scraping and analysis methodology to identify existing digital solutions tailored to restaurants.
- Constructing a panoramic view of the European restaurant sector's current state through a comprehensive GAP analysis, culminating in the definition of a SWOT (strengths, weaknesses, opportunities and threats) analysis. This process entailed scrutinising the sector's internal strengths and weaknesses, as well as external opportunities and threats, providing a pivotal foundation for our subsequent project endeavours.
- Conducting stakeholder workshops: The inaugural stakeholder workshop was held in Lyon, France on 19 January 2023. Its principal aim was to assess the results of the project's initial phase, focusing on the restaurant sector's SWOT analysis. Distinguished experts from across Europe convened for extensive discussions, delving into the industry's strengths, weaknesses, opportunities and threats. This event played a pivotal role in gathering invaluable insights and feedback from prominent figures in the field.

WP2: Best Practices and Pilots

The subsequent phase identified, analysed and introduced a potential pilot

of existing best practices in response to the challenges and insights gleaned from WP1. The methodology included:

- Mapping and categorising SMEs in the European Union's restaurant sector into distinct clusters.
- Qualitative and quantitative investigations into restaurants' daily operational aspects and their digitalisation processes and status.
- Conducting desk research on restaurant diners, focusing on the three primary project themes (modification of leisure and travel behaviour, new ways of working and sustainable food management) and relevant consumer trends.
- Identifying and compiling best practices for restaurants from a myriad of sources, tools and processes. The identification of best practices was achieved through comprehensively examining existing literature and research, expert interviews (WP1), analysis of solution maps (WP1), restaurant clustering (WP2), diners' analysis and other relevant reports (WP1 and WP2). The expert interviews provided valuable perspectives and experiences from individuals within the restaurant sector.
- Once identified, these best practices were recorded in a backlog for further analysis, development and

prioritisation. This process aimed to select the best practices most suitable for the distinct characteristics of the restaurant sector. Using a backlog allowed for a structured and organised approach to identifying and selecting best practices.

- The best practices were prioritised by identifying which practices were most suitable for the sector and had the highest potential for successful implementation. The process thoroughly evaluated each best practice against defined criteria, ensuring that the most effective and efficient practices were selected for further development and piloting.
- Starting with the prioritised best practices, the most effective digitalisation strategies were classified into industry-specific challenges. This was followed by an open call for restaurants and solution providers to participate. The objective was to pilot 10 experimental applications of these best practices within restaurant environments, subjecting them to rigorous testing and evaluation afterwards.

WP3: Development of New Solutions Through Hackathon

This phase was dedicated to fostering innovation through a hackathon held in Madrid in June 2023. The methodology included:

- Leveraging the insights and best practices revealed in WP1 and WP2 to delineate unresolved challenges and potential solutions within the restaurant sector.
- Planning and executing a hybrid hackathon event to foster the creation of novel digital solutions tailored to the unique needs of restaurants and addressing any identified gaps, seamlessly blending in-person and virtual components to promote inclusive participation. A weekend gathering was organised, wherein tech enthusiasts, restaurant experts, designers and stakeholders from across Europe collaboratively generated fresh ideas and innovative solutions, shaping the future of the restaurant sector.
- Continual support for the winning solutions, fostering their further development and refinement through pilot projects with restaurants. This approach ensures that promising solutions evolve into practical applications.

The project's valuable lessons and its fundamental objective of advancing the sector have culminated in a series of comprehensive pathways. These pathways reposit essential information, equipping restaurants with the knowledge and resources required to embark on their digital transformation journey. These pathways have been designed to facilitate

and guide restaurants in initiating and navigating their digitisation processes effectively.

Ultimately, the project has also crafted a user-friendly tool specifically designed to empower restaurants throughout the European Union. This tool is a practical resource for these establishments, enabling them to discern the most pertinent digitalisation pathway tailored to their unique business attributes and current digitalisation progress.

While the project is committed to providing valuable insights and recommendations to the restaurant sector, it is essential to acknowledge its scope and inherent limitations. The project is primarily centred on the European restaurant sector, emphasising its diverse and dynamic nature. To accomplish this, the analysis detailed in this section thoroughly examined restaurants, which were subsequently categorised based on various characteristics, including size, location and business type. While this approach facilitates targeted learning tailored to each restaurant category, it is worth acknowledging that certain variants may not have been encompassed within the analysis. Furthermore, it is essential to recognise that the project's findings and recommendations may not be universally applicable to all global restaurant markets. Regional variations and regulatory considerations can substantially affect the practicality and

execution of the project's outcomes.

Although the project may not encompass every possible best practice within the restaurant sector, it strives to offer a comprehensive overview based on available data and resources, including time limitations and the scope of our reach. The project's aim is for all its outputs to serve as a valuable guide and reference, providing sufficient information for every restaurant to embark on its digitalisation journey. It's worth highlighting that any improvements in less digitised restaurants will be an especially significant win for the sector.



2. Digital Transformation in the Restaurant Industry

The restaurant industry has experienced profound impacts amid the COVID-19 pandemic and is currently grappling with the surge in prices. This section offers an overview of the current state of the sector, exploring the advantages of digitisation and outlining the forthcoming challenges.



2.1. An Overview of the Restaurant Sector in the EU

In recent years, restaurants tackled with uncertainty, particularly in the aftermath of the COVID-19 pandemic and the economic repercussions following Russia's invasion of Ukraine. The hospitality industry, significantly affected by mobility restrictions imposed to curb the virus's spread, faced heightened challenges amid these events. This section aims to provide an overall understanding of the current state of the sector via a thorough analysis, shedding light on its challenges and examining limitations from various perspectives, including economic and social aspects.

In this context, a dedicated work package has been initiated as part of this project to gain insights into the sector's current standing, map out key stakeholders and discern challenges and potential solutions.

2.1.1. The Economic Context

The COVID-19 pandemic has emerged as a global crisis in recent history. The implementation of lockdowns,

travel restrictions, consumer fears and economic downturns resulted in significant losses both economically and in terms of labour. Although increasing vaccination rates and easing travel restrictions have helped kickstart a recovery of economic growth, it remains slow, uneven and fragile.

In a broader context, the strength of an economy is measured by its ability to provide social protections, such as unemployment and maternity benefits, sustain youth employment and training, uphold workers' rights and foster a diverse and inclusive workforce. These factors not only have the potential to enhance employee productivity but also to expand the labour force and make it more resilient to threats like pandemics.

The complexity of anti-COVID policies has adversely affected supply chains. The Russia-Ukraine conflict also poses a severe threat to the world, teetering on the brink of a substantial energy and food crisis, particularly dangerous for developing nations.

Consequently, inflation has emerged as a pivotal economic issue, intensifying global uncertainty and complicating decision-making for economic agents. The two years of pandemic restrictions and fiscal measures have left the future increasingly intricate. Hence, the imperative for global financial stability in facilitating post-COVID-19 economic recovery underscores the necessity for

coordinated economic policies at both European and national levels.

The tertiary sector, specifically the accommodation and food service industry, stands out as one of the most affected industries by pandemic restrictions in Europe. The sector, employing 8.3% of the total workforce in the European Union (EU) and constituting 8.1% of all EU businesses, faces unique economic challenges. Thus, a comprehensive analysis has been conducted to explore key economic indicators, providing detailed descriptions of the Gross Added Value, employment trends, company dynamics and turnover performance within the EU27 countries. Against the backdrop of the economic context shaped by the pandemic, the subsequent sections offer a nuanced understanding of the sector's resilience, setbacks and intricate variations across different countries.

Gross Added Value

Gaining insights into the economic dynamics of the accommodation and food activities sector is essential for effectively addressing challenges arising from external factors, notably the impact of the COVID-19 pandemic. From 2012 to 2019, the sector exhibited a consistent and positive growth trajectory in Gross Added Value, reflecting a robust economic performance. This upward trend held true

whether we considered values at current market prices or adjusted for inflation.

Remarkably, over the seven years, the Gross Added Value in the sector increased by 32%, underscoring a notable positive trend in the industry. However, the sector's face-to-face nature rendered it susceptible to the pandemic's impacts, leading to a significant downturn in 2020.

The data published by Eurostat (2022) reveals a 41% reduction in Gross Added Value for the accommodation and food activities sector in 2020 compared to the previous year. This indicates a severe contraction and financial setback for the industry during the pandemic.

Thus, while the hospitality industry demonstrated positive economic momentum in the years leading up to 2019, the onset of the COVID-19 pandemic in 2020 abruptly interrupted this trend, resulting in a substantial decline in Gross Added Value for that year.

Employment in Accommodation and Food Services in UE27 Countries

In recent years, accommodation and food-related services have emerged as major employment generators across EU27 countries. The sector witnessed a remarkable positive trajectory, contributing to the creation of nearly two million jobs from 2012 to 2019 at the domestic level. However, the onset of

Mos nus sime dolore,
susa volorio.
Berumqu iduntiae laut
vellupis et pa natur,
volestrum que omnis
min cum qui quiae.

the COVID-19 pandemic in 2020 marked a significant setback, resulting in a substantial 10% reduction in employment across the European Union.

The pandemic's repercussions were multifaceted, encompassing widespread trip cancellations due to national and international travel restrictions. Moreover, the prolonged shutdown of restaurants and food services, with post-lockdown operations restricted to takeaways, contributed to a severe overall decline in the labour force. Notably, only two EU27 countries, Malta and Romania, managed to escape this downturn.

Analysis from 2019 to 2021 highlights Germany, Italy, Spain and France as the primary contributors to employment in the sector despite being the most adversely affected by restrictive mobility measures. This underscores the sector's significance in these countries and emphasises the economic impact of the pandemic on employment in accommodation and food services across the European Union.

Moreover, Spain was the country that suffered the most in absolute terms, with a reduction of almost 460,000 jobs between 2019 and 2020, far behind Italy (199,000) and Germany (155,000).

Companies in Accommodation and Food Services in UE27 Countries

Between 2012 and 2019, there was a gradual uptick in the number of companies involved in hospitality industry across EU27 countries, marking a cumulative growth of 9%. It's important to note that the insights from the business demographics survey extend only up to 2019, thereby limiting the assessment of the impact of the 2020 crisis.

Key players in this sector, including France, Italy, Spain and Germany, consistently maintained their dominance and led in terms of the sheer volume of companies. Examining the contrast between 2012 and 2019 for each country reveals distinct patterns. Notably, Portugal witnessed an impressive four-fold increase, incorporating over 34,000 new companies, while Slovenia nearly tripled its companies during the same period.

France and Italy followed, each contributing around 10,000 and 8,000 new companies, respectively, with a cumulative growth of approximately 20%. In contrast, Germany stood out with a 5% reduction, losing nearly 2,500 companies. The dominance of France, Spain, Italy and Germany is reiterated when considering the number of restaurant companies, underscoring their substantial influence in both the labour market and Gross Added Value. These findings highlight dynamic regional variations and growth patterns within the accommodation and food service sector up to 2019.

Turnover Analysis

The examination of accommodation and food companies within the EU27 reveals Examining accommodation and food companies within the EU27 reveals significant patterns in sales performance and turnover from 2012 to 2020. Notably, there was a substantial 43% growth in sales in this period, but this momentum slowed in 2020, resulting in a sharp decline of 32.6%, attributed to the challenges posed by the reasons stated above.

In terms of turnover, France, Germany, Italy and Spain continue holding top positions, aligning with the overall performance indicators of Eurostat, i.e., turnover, sales, Gross Added Value, number of companies, and employment opportunities. However, Spain's sales suffered a striking drop of almost 50% in 2020 and a notable deviation from 37% decline was observed in other top economies between 2019 and 2020.

The relationship between turnover, employees and companies yields interesting insights. Belgium showcased outstanding performance per employee, surpassing other nations, alongside Denmark and Italy. Meanwhile, Luxembourg, Ireland, Denmark and Finland showcased high relative productivity in the second tier.

Despite variations, all countries witnessed a decline in sales in 2020, at least 20%

year-on-year, reflecting the challenging business environment. Germany, France, Italy and Spain occupied intermediate positions in terms of turnover per employee and enterprise productivity, lacking particularly outstanding data in both cases.

Spain's unique situation was directly linked to socio-sanitary restrictions despite its previously high value until 2019. This underscores the impact of these restrictions on economic indicators within the accommodation and food sector.

In conclusion, this analysis offers nuanced insights into the performance of accommodation and food companies in the EU27, shedding light on the impact of the COVID-19 pandemic on sales and related economic indicators across diverse countries.

Consumption Expenditure Per Household and Sector's Price Index Analysis

This section delves into a comprehensive examination of two pivotal aspects shaping the economic landscape: consumption expenditure per household and the sector's price index. Understanding the patterns and trends in consumption expenditure provides crucial insights into household spending behavior, reflecting broader economic dynamics. By analyzing the evolution of consumption expenditure from 1999 to

2020, we aim to uncover significant shifts, especially in the context of the COVID-19 challenges.

Within the time frame of 1999 to 2015, the EU27 average purchasing power parity (PPP) expenditure per household experienced a substantial growth of over 40%. Notably, Luxembourg, Cyprus and Spain emerged as frontrunners, showcasing the highest average expenditures, exceeding €2,800 annually. The evolution of this expenditure is particularly noteworthy in countries like Finland and Latvia, where average expenditures quadrupled between 1999 and 2015. While comprehensive data for 2020 is not available, we estimate a possible European-level reduction of approximately 10% for this pressing year.

Examining the latest available data for 2020 across 13 countries, Spain and Italy stand out with significant reductions of 36%, reflecting the impactful consequences of the crisis, especially for Spain, a country previously positioned among those with the highest average expenditure per household. Despite the COVID-19 challenges, notable exceptions include Germany, Slovenia, Latvia and Croatia, where households have demonstrated an increase in average expenditure over the past five years.

Similarly, examining the sector's price index offers a critical outlook into the economic landscape, particularly amid the enduring repercussions of Russia's

invasion of Ukraine and the subsequent surge in prices. This analysis centres on the sector's price index, providing valuable insights into the pricing dynamics within the accommodation and food activities sector. Against the backdrop of the economic and health crises triggered by COVID-19 and geopolitical events, the sector's price evolution becomes a focal point for understanding the profound impacts on sales and related economic indicators across countries.

The impact of inflation is sharply observed in nine countries, where prices surged by more than 20%. Lithuania and Hungary stand out, experiencing significant price surges of 34% and 32%, respectively. These countries, having initially low prices, noticed higher demand in the European market, reflecting trends seen in other high-growth countries.

Furthermore, a detailed analysis of price indices within sub-sectors unveils interesting findings. The sector, including holiday centres, camping sites, youth hostels and similar accommodation services, exhibited an outstanding growth of approximately 22%. This represents a substantial 10 percentage-point difference compared to the rest of the sector, demonstrating price surges exceeding 10 points compared to the values observed in 2015.

In conclusion, this analysis reflects light on the consequent impact of

inflation on the sector's price index, with particular attention to the exceptional growth in some specific sub-sectors. Macroeconomic indicators serve as additional benchmarks to gauge the actual state of the sector and its stakeholders, intricately linked to daily operations. The surge in prices, challenges associated with establishing or managing businesses, fluctuating labour turnover and the intricacies of recruitment in a sector with dynamic economic influences underscore the necessity for restaurants to have essential tools and resources to facilitate their operations.

2.1.2. SWOT Analysis of the Sector Before the Project

Following the detailed examination of the European restaurant sector, key strengths, weaknesses, opportunities and threats have been identified, forming the basis of a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis.

Strengths

The restaurant sector has several unique qualities, enabling a dominant position within all economic sectors combined. Through the years, this sector has adopted a competitive strategy that continues attracting customers and creating interest. One of its major strengths is that it displays significant

resilience, knowing the infinite number of value propositions and a constantly changing market. There exists a wide variety of solutions to improve the internal management of a restaurant, and this sector is accepting of innovative solutions such as digital tools. The restaurant sector is part of the leisure sector, making it less vulnerable and enabling constant evolution. This is also one of the main reasons the sector benefits from a perpetual influx of new opportunities.

Opportunities

According to Eurostat (2002), there is a significant positive trend in the increase of the EU population from 2012 to 2020. Specifically, in the last 10 years, there has been a cumulative population growth of 1.51%. Population growth and urbanisation provide a plethora of opportunities to develop exciting initiatives, but they also pose critical challenges for society and its future. More specifically, it has been shown that there is a huge potential for automation in both management and administration. Embracing technological advancements allows many restaurants to enhance efficiency and meet consumer demands in an increasingly digital age.

Indeed, the infusion of innovation through startups presents a brilliant opportunity to revolutionise the European restaurant sector. Leveraging emerging technologies and inventive business models can potentially address diverse challenges

and improve overall operational efficiency. Notably, startups specialising in advanced sales systems, management software and customer relationship tools can optimise various aspects of the sector. Furthermore, initiatives from startups dedicated to sustainable sourcing, waste reduction and eco-friendly packaging solutions align with the sector's commitment to environmental responsibility, fostering resilience and sustainability.

Various countries may provide government support programs or targeted initiatives designed for the hospitality sector. Keeping abreast of such available support can prove advantageous for restaurant owners.

Weaknesses

On the other hand, the restaurant sector is particularly vulnerable to crises due to its non-essential nature. During economic downturns or global crises, consumer spending patterns often undergo a fundamental shift towards essential goods and services, leaving non-essential sectors, including restaurants, susceptible to a declining demand. Additionally, this industry heavily relies on consumer confidence and disposable income, both of which can be significantly impacted during crises. As people prioritise basic needs over leisure activities, the demand for

dining experiences tends to decrease. Consequently, the non-essential nature of the restaurant sector renders it particularly sensitive to economic uncertainties.

The restaurant sector has historically lagged in terms of digitalisation compared to other industries. Many establishments, especially smaller and traditional ones, have been slow to adopt digital technologies in their operations. This low level of digitalisation can result in several challenges for the sector.

Moreover, this sector faces a persistent challenge in recruiting and retaining qualified staff, and this issue significantly impacts its operational efficiency and service quality. The demanding nature of the industry, characterised by long working hours, high-pressure environments and often modest wages, makes it challenging to attract skilled and experienced professionals.

Threats

Due to these main weaknesses, the restaurant sector must deal with some. Due to the major weaknesses, the restaurant sector deals with a few threats. The major threat is the rise of costs and the fluctuations in the prices of ingredients, in addition to increasing labour costs and huge expenses like rent, particularly in densely populated urban areas. This constitutes a significant threat to the profit margins of restaurants,

especially smaller and independent establishments.

As explained before, digitalisation is pivotal to the resilience of the sector. Consequently, restaurants failing to embrace digitalisation may impact their operational efficiency, customer satisfaction and overall competitiveness. Losing out to competitors is one of the main risks of non-digitalisation. Digitalisation is often seen as a standard in providing modern, efficient and customer-friendly services. Digitalisation opens the door to innovation in the restaurant sector, ranging from interactive menus to loyalty programs and personalised marketing.

Supply chain disruptions in the restaurant sector can significantly impact the ability of establishments to source ingredients, maintain operational efficiency and meet customer expectations.

Environmental concerns within the restaurant sector have become increasingly prominent as both consumers and businesses recognise the impact of food-related activities on the environment. Restaurants hugely contribute to food waste, including kitchen waste and plate waste. The use of single-use plastics, such as straws, utensils and packaging, contributes to pollution. Knowing that environmental issues are one of the main societal challenges nowadays, it is pivotal for the sector to adopt environment-friendly practices.

Strengths

- The sector exhibits great resilience in terms of creativity and adaptability due to the diversity of existing businesses and value propositions.
- Being a leisure sector means that restaurants can create different value-added proposals.
- Digitalisation is a tool that promotes the generation of personalised experiences.
- It is a sector prone to sharing its own experiences and adopting external ideas.
- There exists a wide variety of solutions to build customer experiences and the internal management of restaurants.
- It is highly accepting towards innovative solutions (digital tools) once they ensure it is operational.

Opportunities

- There is wide potential for automation in both management and administration.
- The sector benefits from the continuation of the trend towards the development of gastronomic culture.
- The sector has the potential for increasing professionalisation and training.
- New training solutions taking advantage of the offer provided by startups are available.
- There exists the possibility of improving efficiency within the value chain, promoting greener businesses.
- Leveraging digital technologies to develop new business models and new experiences for consumers is advantageous.
- Understanding and adapting to new channels of communication and bidirectional interaction can be beneficial.
- As it is a strategic sector for the economies of many European countries, governments support its development by promoting cooperation between companies, universities and research centres.
- Lifestyle changes can be taken advantage of to generate new business models and experiences.

Weaknesses

- As it is not a sector of necessity, it is the first to suffer during economic shocks.
- A priori, resistance to change due to the lack of innovative culture and the low margins of the sector prevent risks from being taken.
- All of this makes the sector have a low level of digitalisation in general.
- There exists a lack of competencies adapted to the digital world.
- The sector houses unqualified staff for its professional needs
- It is a sector with low productivity.
- High regulatory burden and complex administrative processes pose problems.
- The sector is prone to a high presence of informal and undeclared work.
- Reputational risks of the sector associated with the perception of workers lead to a reduced workforce
- The high fragmentation of the sector makes coordination efforts difficult.
- This leads to a lack of negotiation power with the rest of the value chain.
- The sector displays the inability to develop its solutions due to a great dependence on third parties.

Threats

- The sector may face difficulty in accessing digital solutions in terms of costs and training.
- The speed of technological change makes it difficult for businesses with fewer resources to adapt.
- The supply chain is vulnerable to disruptions.
- The sector witnesses a lack of financing channels that promote innovation.



2.2. Benefits of Digital Transformation for the Restaurant Industry

The restaurant industry, once a realm of handwritten notes and clunky cash registers, has witnessed a profound metamorphosis, especially in recent times with the advent of massive digitalisation and the impact of the COVID-19 pandemic. It wasn't that long ago when the waitstaff would hurriedly jott down orders and chefs would decipher scribbled hieroglyphics, and the mere thought of accessing a restaurant's menu online remained a futuristic dream. In this section, we will revise the days before digitalisation, highlighting the formidable challenges faced by restaurant owners and staff, to give way later to uncover the digital age's culinary treasures, shedding light on the astounding benefits of this transformation.

Viewed through the lens of restaurant management, the advantages of digitalisation are straightforward –it enhances restaurant profitability. It accomplishes this by facilitating more efficient scheduling of both time and staff, cutting costs and ultimately boosting profit margins. What's crucial here is ensuring that the Return on Investment (ROI) is readily apparent and measurable so

that restaurants can truly appreciate the value it brings. Additionally, compatibility with the broader supply chain becomes increasingly relevant, as some of these digitalisation efforts can enhance the overall value of the restaurant's operations.

Many companies believe that digital transformation can be accomplished simply by incorporating new technology into their existing organisations or even being connected to the internet. Instead, this refers to the process of digitalisation, which involves transferring the company's operations to the digital realm. Digital transformation, on the other hand, is a considerably broader concept. It's all about doing things in a new, digital way. We could call digitisation the initial step, involving the process of transferring a company's operations into the digital realm, often by adopting tools like software systems, online platforms or automated processes. Digital transformation is about reimagining and reinventing the way a company operates and delivers value. It involves a fundamental shift in professional mindset, working processes and overall culture, where the focus is on doing things in entirely new, innovative and digitally driven ways. It's not merely about using technology to replicate existing processes; it's about harnessing technology's potential to create entirely new avenues of growth, efficiency and customer engagement. In essence, digital transformation is a holistic and strategic

approach that reshapes the entire organisation for the digital age.

The digitalisation of companies is generally a long and complex process that has a lot to do with materialising high initial expectations into concrete and measurable results in the medium and long term.



While the journey of digitalisation may appear intricate and daunting for restaurants, it's important to recognise that the potential benefits far outweigh the challenges. Embracing this transformative process represents a remarkable opportunity for restaurants to thrive in an increasingly digital age. Consider it as venturing into a realm where improved efficiency, better customer experiences and heightened profitability await. The complexities of the digital transformation journey are akin to refining a recipe – the effort invested leads to a more delectable and rewarding outcome.

Failure to embrace digitalisation today is tantamount to overlooking a treasure trove of opportunities. Therefore, the urgency for restaurants to embark on

their digital transformation journey cannot be overstated. It is not merely an option but a necessity for survival and prosperity. Conversely, refraining from digitalisation could entail a vulnerability to the prospect of business closure in response to market shifts, evolving customer behaviours or unforeseen disruptions, such as the unprecedented impact witnessed during the COVID-19 pandemic.

Not too long ago, restaurants operated without the technological tools that are now considered essential in today's culinary landscape. Before digitalisation became commonplace, the restaurant experience was characterised by paper-based processes, manual order-taking and limited online presence.



Imagine a bustling restaurant on a Friday evening, the air filled with the tantalising aromas of mouth-watering food and bubbling sauces. In this pre-digital era, the dedicated waitstaff scribbled down your orders on slips of paper. The familiar clatter of plates and cutlery provided the soundtrack to their frenzied dance through the dining room. However, the

charm of this bygone era concealed its hidden challenges. The manual order-taking process was as intricate as a complex puzzle, with each piece prone to misplacement or misunderstanding. A wrong order could lead to disgruntled diners and frustrated chefs, not to mention the frantic search for that elusive piece of paper amid the culinary chaos. Paying for the meal meant handing over cash or enduring the tedious wait for the server to process your credit card on the clunky, old machine. Lost receipts and human errors in calculations were as common as the daily specials.

The matter at hand is one of perspective – before the digital revolution, a restaurant’s online presence was as elusive as a hidden gem. Customers had to rely on word-of-mouth recommendations or chance encounters to discover new dining establishments. Who can forget the days of flipping through the Yellow Pages, sifting through search engines and thumbing through telephone directories in the quest to discover establishments and secure reservations? And let’s not neglect the stacks of business cards that accumulated in cupboards and drawers, silently awaiting their moment of relevance. Even the reservation book, a cherished relic for many, was a handwritten tome where hosts juggled phone calls and pencil markings to accommodate diners. Back then, the thought of scrolling through menus, reading reviews and making reservations online was nothing more than a culinary fantasy.

And here we find ourselves today – as the digital age dawned upon us, so did a culinary revolution. Adopting digital systems has streamlined restaurant operations to a degree unimaginable in the past. From simplifying reservations to enhancing the dining experience, technology has fundamentally altered how we interact with restaurants. The benefits of digital transformation in many traditional businesses and industries will continue to evolve as technology advances. This is because there are numerous advantages for both sides of any company, the enterprise management and the customer. For businesses, it means improved efficiency, better data-driven decision-making and the ability to adapt to changing market dynamics. On the customer side, it translates to convenience, personalisation and seamless experiences that cater to modern and new lifestyles.

Meeting Customers Where They Are

Restaurants today possess a remarkable ability to connect with diners on multiple fronts, thanks to the integration of digital technology. Establishments can now engage customers through diverse channels, both physical and digital, encompassing online ordering platforms, efficient delivery services and user-friendly mobile apps. Beyond the confines of the physical dining experience, restaurants are now navigating the

metaverse – restaurant search engine aggregators, home delivery applications and digital menus have ushered in a paradigm shift in how diners interact with your establishment. These tools not only enable potential customers to explore a restaurant’s offerings but also provide captivating visual experiences, featuring photos and videos of its premises and delectable dishes. With real-time data updates, restaurants can ensure that no potential customer ever loses their way in their culinary landscape.

In today’s fast-paced world, where time is deemed a precious commodity, the ability to explore a restaurant’s menu, select dishes with a few taps and place an order from the palm of one’s hand is nothing short of revolutionary. The menu transforms into a digital playground where diners can leisurely peruse offerings, explore culinary delights and satisfy their cravings with unmatched convenience. Customers are now everywhere – whether at home, their workplace, near to restaurants or even hundreds of kilometres away.

The digital era has also bestowed upon restaurants the gift of increased visibility. Through websites, social media and food delivery apps, eateries can now reach a broader audience. Potential customers can effortlessly explore menus, read reviews and find contact information with just a few taps on their screens. The power of this expanded online footprint cannot be overstated, as it attracts a

larger and more diverse customer base, ultimately bolstering revenue streams.

However, this newfound ability to connect with customers on multiple fronts presents its own set of challenges: ensuring consistency across diverse channels, from the ambience of a physical restaurant to the accuracy of online orders, demands careful orchestration. Yet, for those who embrace this culinary evolution, the rewards are boundless. Diners no longer need to choose between convenience and quality; they can have both. It is an era where the boundaries between the digital and the physical blur, and the dining experience evolves into something more profound – a harmonious blend of tradition and technology.

Efficiency Is The Lifeblood of Progress in the Ever-Evolving Realm of Dining

When time is often as precious as the flavours on our plates, integrating digital technology emerges as a solution to make business life easier. Efficiency is the hallmark of effectiveness and productivity; it signifies the ability to achieve optimal results with the least amount of resources, time or effort. Essentially, efficiency is the art of doing more with less, making it a fundamental principle in various facets of life, from business and technology to personal endeavours. It measures how well tasks are executed, processes are streamlined and goals are accomplished, reflecting a commitment to maximising

output while minimising waste. Following are certain examples of efficiency improvement in a restaurant:

- **Ordering and reservations:** The adoption of digital menus, online booking platforms and mobile applications streamlines the ordering process, significantly reduces errors and enhances the efficiency of managing customer reservations. These innovative digital systems eliminate the need for manual phone-in reservations, ensuring bookings are automatically and accurately recorded, free from errors and delays.
- **Inventory management and supply chain:** This refers to tracking and controlling the restaurant's stock of ingredients, food products and supplies. Efficient inventory management ensures the restaurant has the right quantity of items on hand, minimising wastage and ensuring that ingredients are fresh.
- **Kitchen operations:** Often hidden from view, the kitchen forms the birthplace of culinary excellence in a restaurant. From the moment an order enters the kitchen to the delivery of a perfectly crafted dish to the diner's table, any measure that enhances process efficiency constitutes a significant boon for the restaurant. This encompasses error minimisation, precise order management, waste reduction, meticulous ingredient

portioning and menu selection, as well as automation of repetitive tasks (allowing employees to concentrate on tasks that demand their expertise, while the more routine and repetitive functions can be efficiently handled by machines). The outcome of these endeavours is not only elevated culinary quality but also reduced costs, culminating in a superior dining experience for diners.

Informed Decision-Making, It Is All About Data

The new times bring with them a treasure trove of data – a currency more valuable than ever. Restaurants, once reliant on instinct and experience, now find themselves equipped with a powerful tool: data-driven insights. By harnessing the wealth of information gleaned from digital platforms, restaurants can peel back the layers of customer preferences, uncover the nuances of emerging trends and scrutinise the inner workings of their operational performance. The operational performance is more than mere statistics; the menu adjustments, marketing strategies, anticipation of customer patrons, stock optimisation, staff scheduling and pricing decisions of yesteryear influenced by gut feelings, have given way to a sophisticated, data-driven approach that is revolutionising the industry.

Picture a restaurant that can not only anticipate its patrons' desires but also

tailor its offerings to meet them. Imagine a dining establishment that responds in real-time to shifts in market demand, ensuring that every plate served is what customers crave precisely. Thanks to the digital era's data-driven capabilities, these scenarios are not just wishful thinking but tangible realities. Restaurants can now optimise their offerings and services, not through guesswork, but through the strategic application of data-driven insights.

Diversified Revenue Streams, New Channels, New Business Opportunities

Digitalisation breathes life into the revenue potential of restaurants. The once-static profit margins of dine-in establishments have been reinvigorated by the burgeoning world of online orders and doorstep deliveries. It resembles a second restaurant, one that operates virtually and tirelessly, opening up the potential for increased sales and profitability. Beyond the conveniences of takeaway and home delivery, today's digital reality is unfurling new horizons for restaurants, even in places where, not too long ago, their presence was an arduous endeavour. The transformation does not stop at redefining how we dine; it is reshaping the very essence of the restaurant business itself. Consider stepping into the corporate world, offering business services and catering options. Companies can effortlessly browse menus, place orders and schedule

deliveries to their workplaces, all with a few clicks. It is an experience that not only saves time but also adds a delightful touch to office gatherings and meetings.

Employee Satisfaction, The Cornerstone of Success in the Digital Restaurant

Employees play an integral role in modern digitised restaurants. Their primary responsibility lies in efficiently utilising the restaurant's digital systems, a practice that yields benefits not only for diners and restaurant management but also for streamlining day-to-day operations. Tasks such as order processing, dish delivery and payment management exemplify how these systems simplify employees' work, enhancing their overall experience in the restaurant. However, the advantages of digitisation extend beyond the customer-facing aspects. Restaurants can also digitise various facets of employee management. This includes simplifying training processes, effectively managing work schedules and days-off and automating payroll management. Such measures contribute to fostering a positive work environment where employees enjoy favourable working conditions, ultimately leading to a content and motivated workforce.

Adaptation to Changing Demands, We Could Call It Resilience

Emergencies like pandemics, uncontrollable economic fluctuations leading to price hikes or unforeseen events can leave businesses vulnerable. The trials endured during and after the COVID-19 pandemic offer invaluable lessons, particularly for an industry that bore the brunt of the crisis. Digitalisation emerges as a tool for proactively addressing such unexpected challenges, with businesses possessing the infrastructure and readiness emerging as resilient survivors. Restaurants equipped with robust digital systems could withstand the pandemic's impact, swiftly pivoting to adapt their operations for services like home deliveries. This adaptability underscores the importance of digitalisation in enhancing a restaurant's ability to respond effectively to unforeseen disruptions.

In essence, resilience refers to the capacity of an individual, organisation or system to withstand and recover from adverse situations, challenges or shocks. It embodies the ability to adapt, bounce back and maintain functionality even when faced with disruptions, stressors or setbacks. This is why we can attribute resilient restaurants to those that can quickly adjust their operations, make strategic decisions and innovate when

faced with challenges. They may diversify their offerings, implement cost-saving measures or find new revenue streams. This means opting for tools for remote operations, efficient communication, data-driven decision-making and the ability to pivot to new business models. Digitalisation allows restaurants to be better prepared and more adaptable in the face of unexpected events, ultimately contributing to their ability to endure and thrive in a rapidly changing world.

Sustainable Practices: Reducing Food Waste Through Digitalisation

Sustainable practices, commonly known as sustainability, encompass a spectrum of deliberate actions and strategic approaches aimed at mitigating the adverse consequences of human activities on the environment, society and the economy. Within the restaurant industry, much like in other sectors, daily operations can exert a significant toll on ecosystems. Factors such as food waste management and the energy efficiency of kitchen equipment are relevant elements that warrant careful consideration. Fortunately, integrating digital tools and technology can play a vital role in minimising the environmental footprint of these actions.

Everything Connected in Restaurant: The Restaurant of the Future Already Exists

Imagine a restaurant where the digital and culinary realms merge with remarkable harmony. As diners browse an interactive digital menu on their smartphones, every selection triggers a well-orchestrated symphony of events behind the scenes. Automated processes relay orders directly to the kitchen, where intelligent machinery takes centre stage, ensuring precision in every dish prepared.

And what's more, imagine a situation where your dietary preferences and past dining history are seamlessly integrated into your restaurant visit. The moment you step through the door, the restaurant's systems recognise you and suggest personalised menu options based on your past preferences. It's a level of customisation that transforms each visit into a culinary journey tailored uniquely to your tastes. But it does not end there. As you savour your meal, the restaurant's intelligent systems continue to work their magic. Real-time data analytics monitor ingredient freshness, ensuring that each dish is prepared with the utmost quality. When it gets to settling the bill, there is no need to flag down a server or wait in line; a simple tap on the smartphone takes care of the payment seamlessly and securely.

This is the restaurant of the present, where the future digital tapestry has already unfurled. It is a testament to the adaptability of the culinary industry, where traditions are harmoniously interwoven with the possibilities of today's technology. The dining experience is

no longer confined to the plate; it has transcended into a realm where every aspect is meticulously curated to delight the senses and simplify the process. As we stand at the crossroads of this culinary evolution, one thing is clear – the restaurant of the future is not some distant dream; it's the reality we're living today. It is a testament to the remarkable fusion of human creativity and technological and digital innovation, where the boundaries of what is possible continue to expand.

In the forthcoming sections, we will embark on an exploration, unveiling various pathways restaurants can venture down to commence their digital transformation. These suggestions will serve as a guiding point, providing restaurateurs with direction as they navigate the captivating journey of digitalisation, ensuring they can tap into their full potential.



2.3. Challenges of Digital Transformation in the Restaurant Sector

The process of digitising businesses, including the restaurant industry highlighted in this guidebook, undoubtedly offers numerous advantages. However, it is essential to acknowledge that these benefits come hand in hand with challenges that restaurants must handle with care. Below are several factors you should consider as you embark on the path to digitisation:

- **Cost of implementation:** Introducing solutions such as those discussed in the preceding section (point-of-sale systems, technological infrastructure, reservation and table management systems or even the creation of a website) comes at a cost and necessitates an investment. While we've outlined the benefits, securing the resources for this purpose can be challenging for small businesses.
- **Lack of resources or knowledge:** In addition to the financial investment, adapting a restaurant to the digital era requires both time and expertise. The daily operations often consume

the focus of any business, especially if the restaurant operates with minimal staff, making it challenging to allocate extra time to additional tasks or actions. Echoing the previous rationale, while the benefits are evident, this extra dedication by utilising time and expertise will ultimately yield rewards. Furthermore, the lack of knowledge on how to proceed is often another challenge when digitising businesses. This guidebook addresses this scenario by aiming to provide comprehensive information so that restaurants can successfully navigate the process of digitalisation.

- **Resistance to change:** Employees may resist adopting new technologies or procedures, fearing job displacement or an increase in workload. Overcoming this resistance requires effective communication, training and a supportive environment that emphasises the benefits of the changes and addresses the employees' apprehension.
- **Training and skills gap:** Apart from resistance among employees, another challenge you may encounter is the lack of digital skills in the workforce. This will necessitate both training and time for employees to adapt to the new procedures. It is essential to consider that recruiting and retaining staff with more digital and technical skills can be challenging in countries with higher demand.

- **Integration issues:** Many restaurants may have legacy systems and hardware that do not seamlessly integrate with the new digital solutions. This can pose significant challenges during the implementation process, requiring careful consideration and potentially necessitating upgrades or replacements to ensure smooth compatibility between existing and modern technologies.
- **Technological support and maintenance:** Digital systems may experience technical issues, and restaurants need to have a plan in place for troubleshooting and maintenance to minimise downtime. Maintain a solid infrastructure, preferably connected to the internet or with data backups, to ensure preserving information and preventing data loss.
- **Data security and privacy:** The advent of digital transformation brings forth the task of effectively handling extensive data volumes while safeguarding the privacy and security of customer data. This necessitates robust cybersecurity measures, stringent data protection protocols and ongoing efforts to stay ahead of evolving threats. Deploying encryption or complicated password systems within access controls, along with conducting regular audits, is essential for establishing a robust defence

against potential breaches.

- **Regulatory compliance:** Naturally, as we delve into discussions about data security and privacy, it's imperative for restaurants to adhere to diverse regulations concerning data management, food safety and accessibility.
- **Competitive landscape:** The restaurant industry is intensely competitive, and staying abreast of the latest digital trends and meeting customer expectations can be challenging. However, it is a necessity driven by competitive diners. Note that falling behind in technology adoption can lead to loss of customers.
- **Changing customer expectations and behaviour:** As customers become more tech-savvy, they expect seamless digital experiences or facilities. Restaurants must continually update their technology to meet these changing expectations.
- **Fear of losing personal contact:** Some restaurant owners fear that digitisation might take away the personal rapport that employees cultivate with diners. However, striking a balance between embracing digital advancements and preserving the human touch is crucial for ensuring a positive dining experience. Implementing technology should enhance, rather than replace, the

interpersonal connections that contribute to the overall hospitality and satisfaction of guests.

- **Sustainability concerns:** Addressing the environmental impact, resource usage and ethical considerations associated with business operations is an increasingly vital aspect of corporate responsibility. Diners demand environmentally conscious practices, pushing restaurants to adopt sustainable measures.

These challenges encompass various facets, reflecting the diverse perspectives and obstacles your business may encounter when transitioning to digital operations. Be it the standpoint of diners, technology or employees, the equilibrium between the advantages of digitisation and the resistance to implementing these changes will be the pivotal force propelling your business towards ongoing enhancement. Striking a harmonious balance between the benefits and the challenges is the key to fostering continual improvement in your digital journey.

To facilitate this journey, **we have defined 10 challenges for the restaurant industry.** We have curated strategies you can undertake in your business. Within these challenges, we have compiled practical strategies that you can adopt for your business. The articulation of these challenges is tailored to resonate with your experiences, aiming to inspire you

to delve into and apply the associated best practices within your business operations. Our goal is to provide actionable insights that not only address common challenges but also empower you to enhance and refine your business practices.

Challenge 1 - Digital Presence: Connecting With Diners

In today's digital age, people heavily rely on online platforms to search and choose restaurants. As a result, having an effective online presence has become essential for restaurants to attract new customers and retain existing ones. This can include websites, social media platforms, online ordering systems and even review sites like Google or TripAdvisor. By establishing a strong online presence, restaurants can showcase their menu offerings, location and overall brand image and make it easier for customers to find and engage with them.

Challenge 2 - Facilitating Booking: Easy Reservation Management

With the increasing popularity of online booking and the convenience it provides to customers, restaurants must have a reservation management system that is user-friendly and efficient. This can include having an online booking platform that integrates with their existing website or social media pages, as well as tools to manage incoming reservations and table management.

By facilitating booking, restaurants can improve the customer experience, reduce wait times and increase overall efficiency in their operations. A well-designed reservation management system can also help restaurants better understand customer preferences and patterns, which can inform future decision-making and marketing efforts.

Challenge 3 - Intelligent Warehouses: Shifting Towards Optimised Food and Stock Tracking

Food waste has significant financial, environmental and social impacts. It generates 8% of global greenhouse emissions. One-third of all food produced is lost or wasted, and in Europe, 88 million tonnes of food are wasted, of which restaurants are responsible for approximately 18 million tons. Beyond the social issues, food waste has a significant impact on financial and operational aspects. It is important to enable accurate food ordering and inventory management to reduce waste or spoiled food, donate excess food and encourage customer practices like taking leftovers.

Challenge 4 - Improving Table Service: Faster and Better Processes

Customer service and speed are usually ranked as one of the most important factors when dining out. Enhancing the

dining experience and improving the speed will increase customer satisfaction, ultimately leading to better reviews and more family and friend recommendations. This can involve streamlining processes, reducing wait times and ensuring the staff is equipped with the tools

and resources to provide this service. Using technology like digital ordering systems, table management tools or real-time communication systems can help achieve this objective.

Challenge 5 - Business Insights: Gathering and Using Data (Data and Market Intelligence)

According to experts, one of the main aspects to increase the resilience of the restaurant is learning about your business. By doing this, restaurants can better understand their customers, their operations and the market in which they operate. This information allows restaurants to make better decisions and respond more effectively to changes and challenges.

Challenge 6 - Traceability and Cleanliness: Keeping Food Safe

Sanitation, hygiene and traceability of food are some of the most important aspects of a restaurant, as they may affect the health of the diners. Health inspections detecting unhygienic food are at the top of the list of

deterrents to come back to a restaurant and can reduce recommendations and reviews. Implementing tools that help in traceability systems or cleaning protocols and processes can help keep food safe.

Challenge 7 – Digital Restaurant Tools: Implementing Technological Infrastructure

Most of the improvements that restaurants can implement need some kind of technology. Computers and tablets, intelligent machinery or Wi-Fi and fast-speed internet are some of them. Above this, a lot of digital tools now work on the cloud. With this new situation, tech infrastructure and cybersecurity became a new subject for restaurants.

Challenge 8 – Delivery, Takeaway and Others: New Business Models and Revenue Channels

COVID-19 accelerated some changes in leisure, travel and work culture. Delivery and takeout increased in demand, and restaurants needed to adapt to this new reality. Although it is something that restaurants need to address individually to see if and how it fits their business, the reality is that the demand is still high, and they must find the best way to reach this customer base. Besides delivery and takeout, some businesses found new ideas for building new revenue channels like selling ingredient boxes (for the

customer to cook), workshops, etc.

Challenge 9 – Maximising Employee Potential: Managing and Motivating Restaurant Employees

Restaurants depend on their employees to provide excellent customer service, prepare and serve food and manage operations, making it essential to ensure employees are motivated and engaged in their work. Additionally, labour costs usually make up to 30–40% of the operating expenses. Therefore, managing the schedules efficiently, reducing overtime and overstaffing and improving their training and development become important tasks.

Challenge 10 – Mitigating Food Waste in the Restaurant Industry: A New Approach to Sustainability and Cost Savings

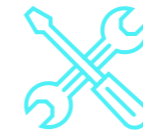
Food waste is a major challenge in the restaurant industry, not just from an environmental perspective but also from a financial one. It is estimated that the average restaurant generates thousands of pounds of food waste each year, resulting in significant expenses and inefficiencies. Stock monitoring and optimisation, partnering with food banks or startups, more efficient preparation processes and kitchen management or better demand foresight can help resolve the issue.

In this guidebook, within the context of these challenges, you will discover a collection of best practices curated specifically for adoption in your restaurants. Accompanied by clear guidelines, recommendations and step-by-step instructions for implementation, this resource will equip you with the necessary tools to digitise your restaurant operations successfully. The intention is to provide practical insights that not only address the outlined challenges but also serve as a roadmap for seamlessly integrating digital solutions into your business.



3. Existing Digital Tools and Practices in the Restaurant Sector

Unveiling the current digital restaurant sector by identifying challenges, opportunities, and existing solutions for the restaurant industry, this section illustrates effective methods for exploring and digitalising your restaurant's operations.



3.1. Overview of Existing Digital Tools and Practices

In the heart of the restaurant industry, a significant evolution is unfolding – a shift that would gradually replace traditional methods with new and modern digital solutions. This evolution involves transforming restaurants into dynamic places of digital activity, where data flow seamlessly and manual tasks fade into the background. Mobile phones and tablets have become the new tools of the trade, as they bring agility and simplicity to traditional processes.

This transformation is driven by new digital solutions that are already available in the market and embraced by more and more restaurants every year. This influx of digital solutions is reshaping the landscape of the restaurant industry, offering an ever-expanding array of tools that cater to diverse customer needs: from reservation management to customer engagement. These solutions have now become integral to the operational fabric of eateries, reaching restaurants of all sizes and types.

In the upcoming sections, we'll take a closer look at the transition from traditional methods to digital platforms in

the restaurant industry and explore the various ways in which this transition is revolutionising how restaurants operate.

Methodology and Results of the Digital Transformation in the Restaurant industry: A Taxonomy Approach

A thorough analytical analysis was conducted to identify existing digital solutions available in the market. This process entailed an exploration of textual content available on the websites of the existing solutions, identification of the commonly used terms, and their subsequent categorisation into similar groups for classification.

To extract valuable insights from the existing digital solutions, a dataset of 3,000 European food-tech and hotel-tech solutions was analysed. Within this trove, 2,045 solutions were dedicated to the realm of food tech, whereas the remaining 955 centred around the realm of hotel-focused solutions. Notably, this latter domain shares striking similarities with the restaurant industry and has embraced digitisation to a more significant degree compared to the restaurant sector.

As a result, **22 thematic groups were derived to encompass all the digital solutions.** These clusters were organised into four dimensions, based on the technology they utilised, the type of restaurant service they were employed in, their impact on restaurant management,

and their contributions to safety measures.

- **Technology:** This dimension encompasses the technological aspects driving the digital transformation in the restaurant industry. It includes concepts such as artificial intelligence (AI), data utilisation, robotics, blockchain technology, the Internet of Things (IoT), and other relevant technological innovations, for example, digital applications, virtual reality, and food printing.
- **Restaurant services:** This dimension covers a range of restaurant services, including food finding and ordering solutions, kitchen management tools, food delivery services, outside-restaurant service offerings (catering services and food trucks), customer retention strategies, overall service improvements, and innovation initiatives.
- **Restaurant management:** This dimension focuses on the critical management aspects of the restaurant business, such as supply chain management, food processing, booking solutions, ordering processes, overarching management strategies, and sustainability initiatives aimed at minimising environmental impact.
- **Safety:** Safety remains a distinct dimension, highlighting its paramount

importance. This encompasses solutions and strategies dedicated to ensuring the safety of both customers and staff, underlining the significance of maintaining secure and hygienic environments.

In light of this, the 22 thematic groups were analysed to specify the group most pertinent to restaurants and prioritise those having the highest number of available solutions in the market. It is possible that following a quantitative analysis of solutions and beginning with a database exclusive to food-tech, solutions designed for restaurants not classified as “food-tech” or intended for broader industries might have been overlooked in the search.

3.1.1 The Digital Restaurant that We Can Already Find Today: Exploring the Modern Digital Restaurant

With all that has been said so far, we are inevitably in a position to comment on and describe the digital tools currently employed in restaurants. This section aims to offer restaurant owners a valuable repository of inspiration for enhancing their establishments and provide avid food enthusiasts with insights into the latest technological trends shaping the gastronomic world.

In the restaurant industry, experts and analysts have identified three global

megatrends poised to exert the most profound influence. These trends, which span the world, are set to leave an indelible mark on the way we experience dining and how restaurateurs conduct their businesses. Although megatrends represent deep and transversal changes that may seem to be far away from the activity of a small business, they have an uncanny ability to shape the very foundation and future trajectory of all dining establishments, regardless of their scale. Their relevance lies in the fact that they define the environment in several ways, precisely depicting the tremendous and rising complexity that the world, and therefore people and companies, are currently facing.

The main manifestation of this complexity is the interconnection among issues that do not appear to be related. For example, how did the shortage of chips last year lead to a shortage of gummy bears? The chip shortage caused a slowdown in the car market, and car manufacturing is responsible for creating and fostering the demand for many other products. One of these products is leather, which is used to cover automobile dashboards. However, leather is also involved in the production of gummy bears, which requires a specific kind of gelatine that is a by-product of leather. That was how the chip shortage restricted the production of gummy bears in 2022.

Nonetheless, let's introduce each of these three megatrends in the following sections.

3.1.2 An Overview of Global Industry Megatrends

Megatrend 1. Accelerating Technological Change and Hyper-Connectivity

In an era marked by accelerating technological change and hyper-connectivity, the world has witnessed a digital revolution transcending the boundaries of industries. However, in the realm of food and accommodation, a slow adaptation to the digital wave showed a reluctance to break free from outdated systems that stifled both productivity and the ability to address critical issues such as waste and climate change.

The restaurant industry, known for its slim profit margins, has operated within a challenging landscape. Traditionally, margins for a typical restaurant hover around a modest three to five percent, with a slight improvement to six to nine percent for fast-casual eateries and more favourable conditions at ten to fifteen percent for bars.

However, technology has revealed a new realm of possibilities for restaurants, offering them the chance to engage customers in innovative and hybrid ways. This technological wave has ushered in pre-visit services that complement the in-house dining experience, creating a seamless journey from start to finish. Digital touchpoints have infiltrated the

physical dining experience, and they extend far beyond it. The decoupling of ordering and bill payment, facilitated by digital means, increases a restaurant's capacity to serve more patrons efficiently.

Furthermore, individualisation has become a cornerstone of this technological transformation. The proliferation of those digital touchpoints generates a wealth of customer data. By combining customer-provided and collected data, restaurants can unlock the power of personalisation. This empowerment enables restaurants to give customers the choice to customise their dining experience, from tracking ingredient origins to crafting their unique menus, all while seamlessly integrating with their social networks.

The heart of these technological opportunities lies in data collection and generation, with automation standing out as one of the most significant factors. Within restaurant operations, two distinct categories emerge: front-of-the-house (FoH) and back-of-the-house (BoH) services. FoH includes customer-facing interactions such as waiting, seating, and dining, while BoH handles supply chain processes, food preparation, and administrative functions. Technology offers the potential to disrupt and automate these processes, from automated ordering services for suppliers to robotic food preparation. In addition, the integration of technology into both FoH and BoH services has emerged as a key

enabler. Seamless integration of digital and integrated platforms is essential to fully harness technology's potential. The customer journey hinges on the ability to harmonise these service categories, creating a unified, tech-enhanced dining experience.

In the midst of these technological advancements, it is imperative to remember that technology, while enticing, should never overshadow the essence of a restaurant. It must remain a means to an end, a tool that exists to serve the primary purpose of catering to the needs of customers. Ultimately, a restaurant's success lies in its ability to align its value proposition with the desires of its patrons, and technology is merely the conduit to provide the best possible service. This is a lesson too often forgotten, but vital for ensuring a thriving future for the industry.

Megatrend 2. Changing Nature of Work: New generations entering the workforce and older generations working longer are changing employment, career models, and organisational structures.

Although technology has already been covered as a megatrend, there is another perspective that needs to be addressed: jobs.

Throughout history, technology has consistently enriched societies rather

than impoverishing them. While there have been concerns about technology replacing jobs, it has primarily transformed tasks rather than eliminating employment opportunities. This historical perspective is relevant as we navigate the impact of technology on our industry today.

Recent innovations such as generative AI and automation have raised questions about the future of restaurant jobs. However, it is crucial to recognise that these technologies can enhance existing roles, create new opportunities, and improve the customer experience. As the restaurant landscape evolves, jobs may fragment into specific tasks, leading to the emergence of new roles and opportunities.

Despite these changes, a significant part of the restaurant experience remains inherently human. Customers still seek genuine, personalised interactions. The combination of automation and human service can lead to enhanced customer experiences, reduced waiting times, increased convenience, and improved efficiency and accuracy. While automation is still in its early stages, industry leaders view it as a means of enhancing, not replacing, current operations. Studies suggest that automation will allow workers to transition from doing manual, repetitive tasks to shouldering more creative, complex responsibilities, ultimately leading to increased job satisfaction.

To adapt to these changes, the ability to up-skill and re-skill the workforce is essential. This transformation does not only redefine the nature of work in the food and accommodation service industry but also open doors to remote working opportunities and new dimensions of service.

However, it is imperative to recognise that changes in work dynamics extend beyond this industry. As other sectors adopt more remote working habits, businesses in the restaurant sector may also be affected. While measures such as species remuneration could mitigate some of these challenges, adapting to trends like remote work and utilising tools such as delivery and takeaway may be necessary to remain resilient and competitive in the evolving restaurant landscape.

Megatrend 3. Climate Change and Environmental Degradation: Continued unabated, anthropogenic pollution and greenhouse gas emissions will further increase changing climate patterns

Climate change and environmental degradation are some of the most relevant global challenges humankind is facing today. They have significant implications for the security of individuals, communities, and businesses across the world. Climate change means long-term shifts in temperatures and weather

patterns, which is primarily caused by the burning of fossil fuels and other human activities. This warming has a wide range of impacts, including more frequent and severe natural disasters, including heatwaves, droughts, and unusually devastating storms. Environmental degradation, on the other hand, refers to the decline in the quality of the natural environment due to factors such as pollution, habitat destruction, and overconsumption of natural resources. This leads to several consequences, including air and water pollution and loss of biodiversity.

Both climate change and environmental degradation can have major implications for global security. Climate change can lead to increased competition for resources, such as water and food, which can result in conflict. It can also cause the displacement of people from their homes due to natural disasters, which can create security challenges for both the affected individuals and the communities they move to.

Additionally, climate change and environmental degradation can have negative impacts on economic and social systems, which can, in turn, contribute to insecurity and instability. For example, the loss of natural resources and damage to ecosystems can harm industries that rely on these resources, resulting in economic disruption and job losses.

These issues also significantly affect

the food and accommodation services industry in various ways. Climate change can impact the global food supply, leading to higher food prices. Extreme weather events, such as droughts and floods, can damage crops and reduce yields, leading to higher prices for food ingredients. Changes may also occur in consumer behaviour due to these issues. As awareness of climate change and environmental issues grows, consumers may become more interested in choosing restaurants that offer sustainable, eco-friendly options.

3.1.3 Existing Digital Tools for Restaurants

Following our exploration of the principal worldwide trends impacting the restaurant industry, we now turn our attention to the digital tools that already have a significant influence on restaurants today. These tools are not only a response to those trends but also a catalyst for enhancing efficiency, customer engagement, and overall operational excellence in this rapidly transforming landscape. Let's delve into these digital tools and discover how they are reshaping the restaurant experience.

Contactless Menu Software or Digital Menus

Contactless menu software represents digital solutions that allow restaurants to provide customers with a convenient and

hygienic digital menu option. Customers can access these menus through their smartphones, tablets, and computers and browse the menu offerings without having to physically handle a menu or even interact with the waitstaff.

Amid the COVID-19 pandemic, restaurants widely adopted the use of QR codes to offer menu access. Positioned strategically on tables or visible areas, these QR codes grant diners a versatile means to explore their dining options. When these codes are scanned, menus become accessible in various formats, ranging from basic PDF documents to web pages and digital applications. Besides providing textual information, digital menus have the capacity to seamlessly integrate captivating visuals and interactive elements. This includes enriched descriptions, detailed dish explanations, and interactive features that assist customers in making well-informed dining decisions.

Restaurant Finding and Booking Services

In the digital age, one of the most profound transformations is the undeniable necessity of establishing a robust digital presence. This imperative transcends industries and holds a particular significance in the realm of dining establishments. In the digital environment, being prominently featured has evolved from being a choice to an absolute requirement, as it often spells

Unlock new possibilities with digital menus: These digital solutions not only provide convenience but also offer a platform for harnessing upselling opportunities, enabling restaurants to suggest complementary items and facilitate the seamless ordering of new dishes. Additionally, the incorporation of analytics and insights in the industry empowers restaurants to gain a deeper understanding of customer preferences and behaviour, driving informed decision-making. Additionally, these solutions have the potential to automate specific restaurant processes, such as order processing, table management, inventory tracking, and even billing or payment, contributing to greater efficiency and cost reduction.



the difference between attracting a steady stream of diners and languishing in relative obscurity. This is where restaurant finding and booking services come into play, serving as instrumental components of a restaurant's digital arsenal.

With these solutions, without hardly any effort, users can find the right restaurant that aligns with their preferences, tastes, and dining styles. The prevalence of diners conducting research and seeking restaurant information before visiting a restaurant continues to rise, underscoring the paramount importance for restaurants to maintain current and exhaustive online profiles. Restaurant aggregators, websites, or listings on digital maps serve as accessible channels for users to discover dining establishments with ease. Gone are the days of protracted phone calls and uncertain booking processes. Digital restaurant booking services facilitate the reservation experience, enabling users to secure their dining slots with facilities.

Technology Infrastructure and Providers

Let's revisit the fundamentals. For a restaurant to be recognised as digitised, it must adhere to essential infrastructure prerequisites. We are not referring to specific tools here; instead, we are emphasising the need to establish certain standards that form the basic groundwork. In this context, it is crucial to ensure that the restaurant has robust connectivity,

such as a reliable and high-speed internet connection, which is imperative for various digital processes, from online orders to integrated reservation systems; essential digital devices, such as tablets, computers, and POS systems, to facilitate smooth interactions and transactions; and cybersecurity measures. Various companies in the market offer these services independently, and there are also alternatives where multiple services are packaged together as a bundle. These technology providers specialise in delivering essential technologies to the food industry, providing digital solutions including inventory management, point-of-sale (POS) systems, and enterprise resource planning (ERP) software.

Solutions for Reservation Management, Order Acquisition, and Table Management

In the restaurant setting, the tasks of handling reservations, organising tables, and managing orders do not need to only rely on manual, paper-based systems or become the sole responsibility of the waitstaff and restaurant management. Dependency on such methods can result in errors, consume excessive time, and generally lead to inefficiencies. From a holistic perspective, a digital restaurant solution can incorporate reservation management, order acquisition, and table management tools. This system empowers establishments to efficiently

handle bookings, optimise table turnover, seamlessly integrate order processes, and orchestrate precise seating arrangements, such as orders being swiftly transmitted to the kitchen and seamlessly integrated into the POS system. Notably, in the context of booking management, while the "Restaurant finding and booking service" section focused on user-oriented systems (some of which include their own management capabilities), this section discusses internal restaurant management tools designed to handle bookings originating from various channels, including websites, mobile apps, or third-party booking platforms.

Automation of Kitchens and Restaurants

The automation of kitchens and restaurants involves the integration of innovative hardware and streamlined processes to enhance efficiency and productivity in culinary operations. This transformative approach involves using cutting-edge technologies to automate various aspects of kitchen and restaurant management, ranging from food preparation to customer service. In terms of hardware, this may include smart kitchen appliances and robotics designed to handle repetitive tasks, optimise cooking processes, and ensure precision in ingredient measurements. Additionally, the automation of processes extends to the digital realm, incorporating technologies such as advanced POS systems, inventory management systems,

and order processing systems. These technologies work cohesively to reduce manual workload, minimise errors, and expedite service, ultimately leading to a more streamlined and responsive kitchen and restaurant environment. Furthermore, kitchen displays provide a visual representation of incoming orders, facilitating quick and accurate communication among the kitchen staff. On the other hand, printers generate hard copies of orders for easy reference and organisation. Whether they display information on screens or paper, these tools enhance efficiency, reduce errors, and contribute to a smoother workflow in the fast-paced restaurant environment. The choice between displays and printers is often dependent on the restaurant's specific needs and preferences, depicting the adaptability of technology in optimising kitchen processes.

Multipurpose Solutions for Logistics and Restaurant Management: Enterprise resource planning systems and all-in-one platforms

An ERP system software is a business management software that integrates various functions of an organisation, such as finance, operations, human resources, and procurement, into a single unified system. The purpose of an ERP system is to provide a complete view of the organisation's operations and automate and control its business processes. An

ERP system is typically composed of several modules that address specific business needs, such as accounting, inventory management, human resources, and customer relationship management (CRM).

When ERP systems are employed in restaurants, besides the general categories applicable to many companies such as accounting management, human resources, and customer relations, they bring a tailored approach to streamline the unique demands of the foodservice industry. In a restaurant setting, these systems go beyond the typical ERP functionalities to encompass a complete suite of tools to manage the entirety of the business. For instance, restaurant-specific functionalities are often integrated to efficiently handle relationships with suppliers, order and table management systems, and booking management features. Within this tool category, you will discover features designed to streamline ingredient replenishment, manage delivery notes, implement price list systems such as calculating menu and dish prices based on updated ingredient costs, and enable real-time stock updates. Some even incorporate innovative systems with consumption forecasts, AI, or computer vision.

Open up new possibilities with an all-in-one ERP system: Having a centralised digital tool to manage the restaurant's operations can be highly advantageous. This becomes increasingly vital as industry experts emphasise the importance of restaurants having a deep understanding of their business for effective management. By consolidating all business information within one digital tool, restaurants can gain quality insights into their customer base and smoothly track sales, profits, and losses. Furthermore, these tools may establish connections with the restaurant's POS system, booking platforms, and table-management systems, streamlining operations and restaurant processes.



Point-of-Sale Systems, Digital Payments, and Processes and Other Payment Systems

A POS system can be defined as a software and hardware solution designed to streamline and facilitate various aspects of restaurant operations, particularly those related to transactions and sales. A POS system is typically used at the point where a customer makes a purchase, which includes payments for meals, drinks, or other services. However, it also includes emerging payment systems, which frequently feature seamless integration with a suite of additional tools, including digital menus, order printers and order automation tools, connectivity to ERP systems, as well as support for a diverse array of digital payment methods (different digital payments, e-wallets, QR scanning methods, or gift cards). This modern solution may also include digital tipping functionalities, providing customers with convenient and flexible options in their payment experiences.

Open up new possibilities with a POS system: The primary role of a POS system is to oversee diner payments, yet its capabilities extend far beyond this singular function. By integrating the POS with other systems, you not only enhance the efficiency of your business processes but also unlock its potential as a pivotal tool for comprehensive data collection. This empowers you to gather valuable insights, including consumption patterns and user data integrated with a CRM system. Transforming your restaurant into a data-driven enterprise, you can make informed decisions with a wealth of information at your disposal.



Employee Manager Systems, and Digitalised Human Resources Platforms

Modern digital solutions for human resource and employee management in restaurants offer a complete suite of features to improve operational efficiency. Similar to the other digitalised systems seen so far, these solutions facilitate the management of restaurant staff without having to rely on manual systems. Within these platforms, functionalities are tailored to assist restaurants in creating assignments, calendars, and schedules, thereby enabling optimal staff management, particularly in predicting peak periods or efficiently allocating resources during periods of peak or lower demand. Furthermore, these platforms streamline employee documentation and administration processes, covering tasks such as payroll preparation and employment documentation including contracts, training materials, and a detailed employee history.

Delivery-Oriented Services and Platforms and Virtual Kitchens

In recent times, the food industry has witnessed a profound shift towards delivery-oriented services and platforms. This transformation is primarily driven by the increasing demand for convenience and changing consumer habits, largely influenced by the COVID-19 pandemic.

Food delivery has risen to prominence,

overshadowing traditional dine-in experiences and gaining remarkable favour among consumers. As an increasing number of individuals choose delivery over dining out, restaurants that do not offer delivery services face the potential loss of significant opportunities. To bridge this gap, delivery-oriented digital platforms have emerged, enabling restaurants to extend their services to delivery. These platforms typically offer customers features such as real-time order tracking, a variety of delivery options, and integrated payment processing directly through the platform. Moreover, these delivery-oriented services can seamlessly integrate with a restaurant's POS system, ensuring smooth order processing and fulfilment for enhanced customer experiences.

For restaurants, these platforms **offer a way to expand their customer base and increase revenue without requiring additional staff or infrastructure.**

However, as the use of these platforms has increased, including the proliferation of dark and virtual kitchens, there have been concerns about their impact on the restaurant industry and customers. These concerns encompass increased competition among restaurants, potential profit margin reductions due to commission fees, alterations in the dining experience, and logistical challenges in ensuring food quality and delivery standards, all of which are being scrutinised in the evolving landscape of food service.

Catering Solutions: Providers, Booking Platforms, and Canteen Technology

Catering solutions and tools are technologies or platforms that help restaurants offer catering services to their customers. These solutions may involve providers offering catering services on behalf of restaurants and booking platforms that enable customers to effortlessly explore catering options and place orders. By incorporating these solutions, restaurants can not only expand their business but also provide a convenient and efficient way for customers to plan and book catering events. Facilitated by third parties or intermediaries, these solutions extend the reach of restaurant services, offering a compelling avenue for diversifying offerings. These tools serve as a crucial link that connects consumers, including businesses, directly with restaurants, as they provide services such as reservations, group menus, and event hosting. This connection enables restaurants to unlock various benefits, including the generation of new income streams, diversification of business offerings, an enhanced market presence, as well as access to a broader customer base. These services allow restaurants to consider business options beyond peak hours, offering versatility for catering, corporate meetings, events, co-working spaces, or other brief gatherings.

Food Waste Solutions

The restaurant industry's impact on food waste is substantial, with Eurostat's estimates placing annual generation at a staggering 5 million tons, comprising approximately 12% of the European Union's total food waste¹. This not only has direct environmental implications but also results in a significant loss of resources and revenue for the industry.

Addressing food waste is not just about reducing the amount of food that goes to waste; it also involves the improvement of overall systems and processes. With a holistic approach, it becomes possible to not only reduce food waste but also increase efficiency, save resources, and improve profitability. Strategies such as enhancing inventory control and streamlining supply chain operations, measuring and tracking uneaten food, and finding alternative uses for surplus food through repurposing or reselling hold promise in addressing this pressing issue. Nevertheless, reduction in food waste is not a process that can be digitised, but rather a goal or result. Therefore, any solution that aims to optimise the processes that lead to a reduction in food waste can be considered a best practice to achieve that goal.

¹ For statistical insights and estimates on food waste and food waste prevention in the European Union, please refer to the Eurostat publication available at https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Food_waste_and_food_waste_prevention_-_estimates

Given that the problem of food waste may have potential solutions in various aspects and processes of a restaurant, and even if there are not a significant number of examples that can be considered best practices, it can be inferred that any solution aimed at optimising these processes can be beneficial in reducing food waste.

- Inventory control and supply chain optimisation solutions:** Implementing advanced inventory control and supply chain optimisation solutions can drastically curtail food waste. These systems provide restaurants with valuable insights into customer demand, enabling them to minimise surplus food that often goes unsold. By closely monitoring sales data, restaurants can make data-driven decisions, such as adjusting menus and ordering practices to align with customer preferences, thus reducing food waste.
- Food waste measuring and tracking solutions:** These tools empower restaurants to monitor discarded food, revealing patterns and pinpointing areas of waste. For instance, a restaurant may discover that specific dishes consistently go uneaten, prompting adjustments like portion size modifications or menu revisions. Measurement not only exposes existing issues but also guides restaurants towards informed decisions on waste reduction.

- Alternative uses for surplus food:** Solutions focused on finding alternative uses for surplus food are pivotal in the fight against food waste. Existing initiatives including food recovery programs, encompassing food banks and soup kitchens, efficiently redistribute excess food to individuals in need. Furthermore, surplus food can be repurposed into valuable resources, such as animal feed or compost. Even food that remains safe to eat but may not meet aesthetic standards can find new purpose through donations to organisations providing food assistance. Additionally, innovative intermediary solutions connect restaurants' surplus food to new customers, striving to minimise waste while maximising positive impact.

Multipurpose Solutions for Health and Sustainability, Food Safety, Compliance and Transparent Systems

Within this category of digital solutions, we encounter innovative approaches to introduce health-conscious and sustainable digital offerings within the restaurant industry and restaurants in particular. These versatile solutions encompass technologies and practices designed to enhance restaurants' environmental, social, and health-related performance. As consumers grow increasingly discerning, their desire for

complete product information becomes more pronounced. This inquisitiveness extends to understanding the origins of products, the intricacies of their creation processes, and their potential impact on personal well-being. These multipurpose solutions are equipped with valuable information, including ingredient specifics, preservation methodologies, and adherence to quality standards. Furthermore, they offer detailed nutritional insights, enabling consumers to access data about the nutritional composition of products.

Cash-Back and Loyalty Card Services

Cash-back and loyalty card services mark a departure from traditional manual loyalty programs, which rely on paper-based tracking and control or administrative procedures. The advent of digital solutions has transformed customer engagement, introducing a fresh approach through reward systems that motivate customers to frequently visit a restaurant. By embracing digital loyalty programs, restaurants now have the capacity to automate previously labour-intensive processes, eliminating the need for physical cards and manual record-keeping. These solutions not only benefit restaurant management but also empower customers to effortlessly monitor their rewards, preferences, and dining experiences. Accessible through user-friendly mobile apps or online platforms, these solutions allow

customers to conveniently manage their loyalty points, explore personalised offers, and redeem rewards at their fingertips.

Cutting-Edge Technologies for Digitalised Restaurants, Intelligent Machinery, Robots, and Other New Technologies

Restaurants have embraced new technologies, with digital tools now incorporating innovations that were considered cutting-edge just a few years ago but have since become commonplace in society and businesses. Examples include QR codes for menus and digital payments. Furthermore, the evolution of kitchen machinery is evident, encompassing everyday appliances like air fryers, upgraded refrigerators, and vacuum cooking machines. Noteworthy is the presence of robots in every aspect of the restaurant, from the kitchen to order delivery. These advanced machines showcase intelligent capabilities, such as identifying food spoilage, recognising the need for replenishment, and monitoring energy consumption, all while incorporating self-cleaning systems. Market solutions even offer additive machinery for food printing.

Besides the basic technologies already discussed earlier, there are other advanced tools for already digitised restaurants, offering a glimpse into the future of the culinary industry. Cloud tech, IoT, AI-infused tools, virtual and

augmented reality, drones, and blockchain offer an upgraded option in various restaurant processes for those leading in digital integration. For example, cloud tech makes restaurant management easier by centralising data storage and promoting seamless staff collaboration. Smart kitchen appliances, a part of IoT, enhance kitchen workflows through remote monitoring and control. Adding AI to these devices improves their capabilities, such as smart data analysis and personalised recommendations. Augmented reality menus elevate the dining experience, while blockchain ensures transparent supply chain management. In addition, drones accelerate contactless food deliveries, demonstrating the innovative shift in the industry. Any technology that contributes to elevating service - be it in terms of food quality, streamlined processes, or meticulous attention to detail in the restaurant - acts as a catalyst for an improved customer experience.

Multipurpose Food Apps and Dinner Applications

Much like the solutions we have explored for restaurant management, shaped by the unique challenges of the COVID-19 pandemic and digitisation, diners now have access to all-encompassing solutions on versatile platforms and apps. These solutions optimise the entire dining experience, from discovering restaurants and perusing menus to placing orders, making reservations, and completing payments.

these platforms is essential, as it serves as a gateway for users to tap into a wealth of restaurant information, which has become an increasingly prevalent search method.



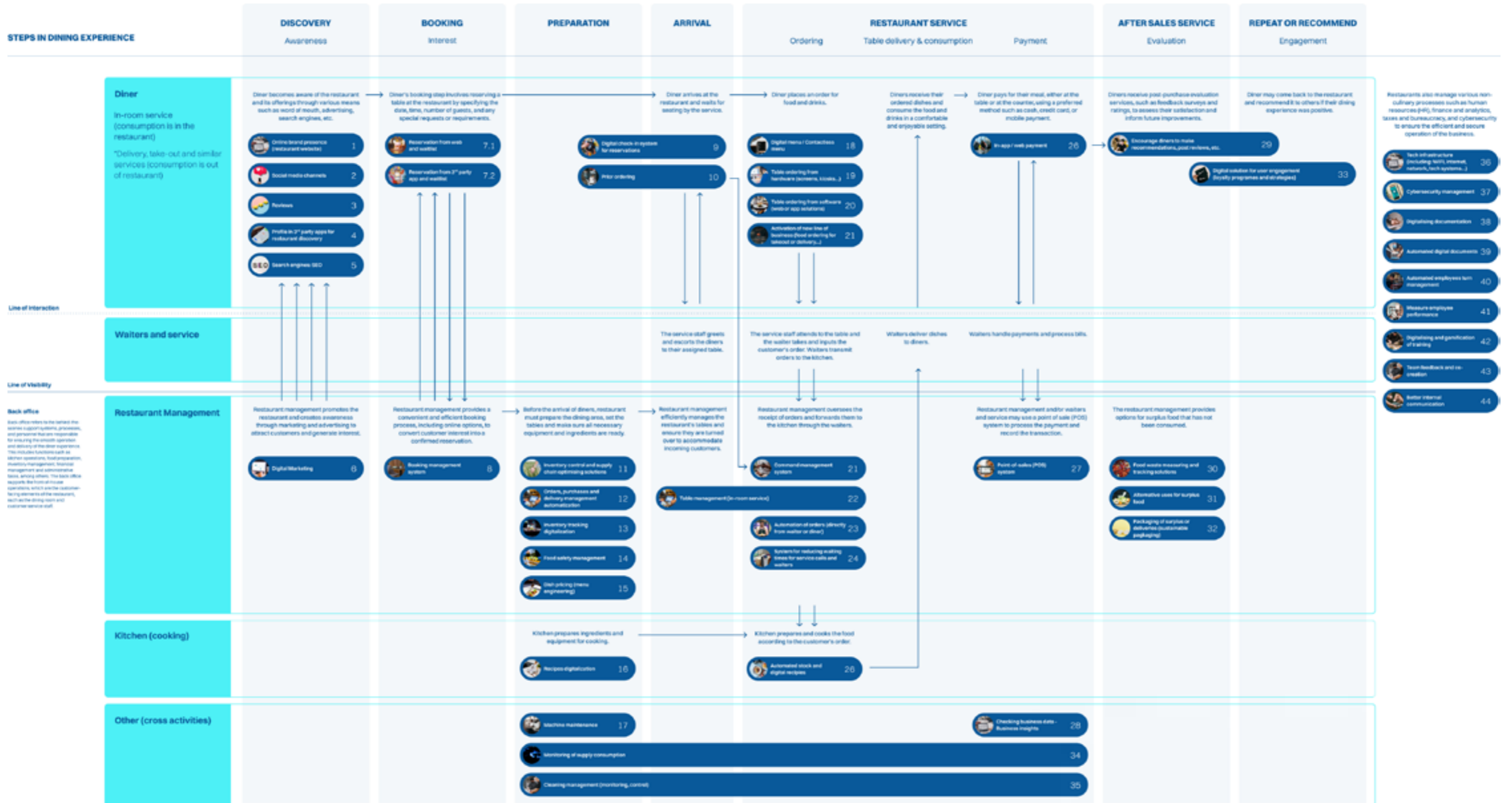
3.2. Traversing a Restaurant's Flows: Embarking on a Diner's Journey Through the Restaurant

The quest for optimal practices suitable for restaurants unquestionably correlates with the sequential phases a diner inevitably traverses within the restaurant's facilities. Integration of digital tools into a restaurant, as discussed in the previous section, significantly amplifies this journey, providing opportunities for streamlined processes and improved customer experiences. What does this signify? In essence, restaurants extend a service to their customers, a service characterised by distinct phases, commencing from the juncture when a customer first expresses interest and initiates their search for the establishment to the culmination of their dining experience and eventual departure from the restaurant's premises.

The restaurant industry is a service-oriented business that involves various phases that customers undergo during their dining experience. Each restaurant

possesses unique operational dynamics, intricately intertwined with its business model and clientele. It is evident that the modus operandi of a fast-food establishment vastly differs from that of a fine-dining restaurant. However, to unearth optimal practices with universal applicability across various restaurant genres or, at the very least, encompassing a wide spectrum of establishments, the subsequent core phases delineating a diner's trajectory within a restaurant can be delineated in the following steps: discovery, booking, preparation, arrival, dining experience, post-dining experience, and repeat or recommend (engagement).

Each stage intricately weaves together to craft a unified dining experience. The concise overview of the seven-stage journey delineating a diner's interaction with a restaurant is an outcome of an exhaustive project analysis. This analysis includes customers, restaurants, and the broader restaurant industry. Hence, it is essential to emphasise that the forthcoming detailed best practices align seamlessly with these stages and are smoothly integrated into them, forming a cohesive part of the restaurant process.



Step 1 - Discovery

This phase marks the beginning of a diner's journey when they explore dining options and destinations. This includes searching restaurants online, seeking recommendations from friends or online reviews, and identifying potential places to dine.

Step 2 - Booking

Once the diner decides on a restaurant, the booking phase begins. This involves reserving a seat or spot at the restaurant, either through a phone call, online reservation system, or walk-in arrangement.

Step 3 - Preparation

Before the arrival of diners, the restaurant must prepare the dining area, set the tables, and make sure that all necessary equipment and ingredients are ready.

Step 4 - Arrival

When diners step into the restaurant, they transition to the arrival phase. This marks the instance when they physically step into the establishment and engage in their initial interactions with the restaurant staff.

Step 5 - Dining Experience

The dining experience phase encompasses the heart of the restaurant

visit. It involves various interactions, starting from ordering food and drinks to making payments. This phase includes interactions with the waitstaff, engagement with the menu, food presentation, and the overall quality of service.

Step 6 - Post-Dining Experience

Following the meal, the post-dining phase comes into play. During this time, the restaurant aims to ensure ongoing diner satisfaction by offering post-purchase evaluation services. This can include feedback surveys, ratings, and other mechanisms to assess diner experiences and gather valuable insights for future improvements.

Step 7 - Repeat or Recommend (Engagement)

The final phase revolves around the diner's decision to either return to the restaurant for future visits or recommend it to others based on their dining experience. Positive engagement at this stage can lead to brand loyalty and increased customer advocacy.

However, the landscape of restaurants is far from monolithic, as each process possesses distinct characteristics influenced by its underlying business model, clientele, and operational dynamics. **No restaurant is identical, but this phased approach aims to provide a reference point.** The nuances that

differentiate a fast-food joint from an upscale fine-dining establishment, while substantial, do not impede the quest for overarching principles that can be embraced across the spectrum.

For instance, consider the contrast between a fast-food outlet known for its casual ambiance and a fine-dining establishment distinguished for its exquisite culinary creations. Despite their differences in ambiance and offerings, both types of establishments will invariably require elements such as discoverability for potential diners, a booking process, and a convenient payment method.

These seven foundational steps within a diner's journey provide a framework for understanding a restaurant's sequence of interactions; however, the complexities that lie beneath demand further exploration. The intricate web of interconnections and intermingled processes necessitates a more granular approach, one that identifies distinct strata of interaction, each contributing uniquely to the overall experience.

To establish a standardised foundation, a categorisation of these interactions into four fundamental levels within the restaurant context is proposed. These four levels serve as elemental pillars that underpin the functioning of the process across these seven essential steps. By recognising these four levels of interaction, any restaurant, regardless

of its nature, can resonate with the framework, enabling the application of general best practices tailored to its specific context.

The structure of interaction is organised into the following four distinct levels: the diner, the waiter and service, the restaurant management, and the kitchen. Each level encapsulates a distinct realm of influence and responsibility within the restaurant ecosystem and processes, with each contributing its unique threads to the fabric of the diner's experience.

- **Diner:** The diner represents the core individual who visits the restaurant to enjoy a meal and the overall dining experience. Their interactions encompass various stages, including discovering dining options, making reservations, engaging with the menu, ordering food and drinks, interacting with the waitstaff, evaluating the quality of service and food, and providing feedback post-meal.
- **Waiter and service:** The waitstaff and service personnel act as intermediaries between the diner and the restaurant. They facilitate the dining process by taking orders, serving food, addressing diner inquiries, and ensuring a comfortable and enjoyable experience.
- **Restaurant management:** This level encompasses the complete management of the restaurant. The

management team handles back-office operations, which include behind-the-scenes processes to ensure a smooth diner experience, encompassing tasks such as kitchen operations, inventory management, financial oversight, and administrative functions. The back-office supports the FoH operations, which are the customer-facing elements of the restaurant, such as the dining room and customer service staff.

- **Kitchen (cooking):** The kitchen staff are responsible for food preparation and cooking. They bring the menu to life, paying attention to quality, presentation, and timely delivery of dishes.

By understanding these seven stages and four levels of interaction, restaurants can effectively analyse their operations, identify areas for improvement, and implement best practices that cater to the entire spectrum of diner experiences, regardless of the restaurant's genre or style.



3.3. Introducing Best Practices for Small and Medium-Sized Restaurants in the European Union

In the present age, the surge of digitalisation unquestionably challenges the traditional paradigms of both employees and businesses. Nevertheless, as history has demonstrated in past technological revolutions, and, in this instance, the restaurant industry, the core strategy revolves around adopting and enhancing the aspects that render the dining experience distinctly human. This involves the strategic transformation of manual processes into digital and automated counterparts, enhancing the restaurant industry's ability to overcome even the toughest challenges. While automated systems may have effectively streamlined the routine tasks of booking, command ordering, and payment processing, they have also opened the door to complex and imaginative culinary initiatives. This includes innovative practices such as predictive inventory management and dynamic kitchen operations, which fine-tune ingredient sourcing while curbing waste. Furthermore, the options for integrating digital technology in the

sector continue to expand, progressively becoming an integral part of day-to-day restaurant operations. This transition not only secures the industry's future but also reinforces its capacity to thrive in the face of uncertainties.

Building upon the observations made thus far, we can say that implementing digital tools in a restaurant can greatly enhance efficiency, improve customer experience, and boost the business's profitability. This guidebook aims to provide restaurants with a complete overview of the available digital tools and how to effectively implement them in their operations. More importantly, it provides a practical roadmap for seamlessly integrating these tools and practices into the restaurant daily operations. Providing advice on from managing behind-the-scenes tasks to creating seamless customer interactions and from optimising your POS system

to harnessing the potential of dynamic reservation platforms, each chapter is designed to empower you in your journey toward digital success.

It is essential to acknowledge that the highlighted best practices are of a generalised nature, adaptable to varying degrees based on the distinct attributes and nature of each restaurant. This highlights the importance of a preliminary self-assessment undertaken by restaurants before integrating these practices. This introspective evaluation involves identifying specific facets of the business, even drawing inspiration from existing digital solutions, and determining the strategic application of these best practices. It is crucial to recognise that not all practices may seamlessly align with every restaurant's context, potentially leading to variances in their applicability or potential impact. This

Within the following compendium, a list of 47 meticulously identified exemplars of best practices will be described. The selection of these exemplars is based on their demonstrated performance and proven success across diverse industries and sectors, encompassing the realm of restaurants. Each exemplar presents a distinctive array of practices that have yielded remarkable outcomes, including heightened efficiency, productivity, elevated customer experience, and ultimately, overarching organisational success.



discerning approach ensures that the chosen practices are not only in harmony with the restaurant's individual identity but also capable of yielding significant enhancements where implemented.

3.3.1 Definition of a Best Practice

A best practice in business refers to a method or technique proven to be effective in achieving a specific outcome or goal. It represents a widely accepted and implemented standard within a given industry or organisation. In the context of the restaurant sector, a best practice encompasses a set of established guidelines and standards for the efficient management and operation of a restaurant. These guidelines have demonstrated their effectiveness in achieving specific goals and objectives, gaining acceptance throughout the industry. They are rooted in substantial evidence and research, forming a reliable framework for successful restaurant practices.

In the specific scenario at hand, a comprehensive study was conducted across various domains, as elucidated in the methodology section of this guidebook. The objective was to pinpoint the best practices tailored for Small and Medium Enterprises (SME) restaurants in the EU27. Considering the definition of a best practice, the selection process factored in specific characteristics to lend objectivity to the choice of each practice:

- **Related to processes:** Processes form the foundation of a restaurant's daily and strategic operations, spanning from fundamental tasks to strategic undertakings. The essence of any best practice lies in the refinement and enhancement of these processes, translating the execution of actions derived from sound practices into tangible and impactful results.
- **Real impact on business result:** The primary objective of valuable best practices is to create a positive economic impact on the restaurant's profit and loss statement. This impact can stem from various sources; however, it is crucial to prioritise actions that surpass mere image-building. These practices must result in tangible economic improvements, whether through increased efficiency, heightened impact, or enhanced processes. In essence, the effectiveness of best practices should be measured by their concrete contributions to economic advancement rather than superficial appearances.
- **Reference point to new improvements:** A best practice should not merely be a standalone success but rather a springboard for introducing novel strategies and innovative tools within a restaurant. Essentially, it should act as a catalyst in the ongoing business

transformation process, paving the way for subsequent actions to be gradually integrated. Strategically envisioning the future entails more than isolated approaches, as it necessitates alignment with a comprehensive plan for transforming the operational model and customer relationships. In essence, the value of a good practice lies in its ability to instigate a continuous evolution towards improved methods and customer engagement, ensuring strategic coherence and long-term effectiveness.

- **Generating global knowledge:** A best practice empowers a restaurant to disseminate its successful strategies and insights to other organisations. Such sharing not only contributes to the evolution of best practices within the industry but also elevates the collective level of knowledge and expertise. Beyond the altruistic benefits, sharing best practices enhances a restaurant's standing in the industry while positioning it as a leader. This recognition bolsters the restaurant's reputation while also attracting new customers and top-tier talents, establishing the establishment as a hub of innovation and excellence.
- **Not just technology:** A best practice involves more than just focusing on the technical aspects. It necessitates considering not only the technological solutions but also the processes

and people crucial for its successful integration within the company. This holistic approach ensures that the positive impact of the best practice on business outcomes is realised. Best practices extend beyond technology and include various elements such as business processes, management techniques, and organisational structures. These non-technical components wield considerable influence on the success of a project or organisation and must be considered for optimal results. Furthermore, best practices may encompass guidelines for communication, collaboration, and decision-making, all of which are indispensable for the effective functioning of any organisation.

- **Needs an effective match:** Not every technology suits every restaurant. Therefore, it is crucial to analyse which best practice aligns with the right technology for a specific restaurant. For a practice to qualify as good, it must seamlessly integrate with the restaurant's culture, resources, and operational capacity. Consider, for instance, the impracticality of digitising a menu and order system for a small-scale restaurant with minimal staff, serving a limited number of customers per shift, and lacking a digital ERP system. In such cases, exploring alternative best practices at first and gradually scaling towards technology adoption may

prove more effective in addressing future needs. Matching the right technology with the unique attributes of a restaurant ensures that the implementation of best practices is both feasible and beneficial.

- **Measurable and adaptable:** A best practice should be measurable, enabling its evaluation and ongoing tracking to assess effectiveness over time. This measurement capability empowers organisations to make well-informed decisions regarding whether to sustain, modify, or discontinue the practice altogether. Measurable best practices offer objective data, aiding in the communication of progress and showcasing the practice's value to stakeholders. Moreover, these practices provide a concrete target for continuous improvement initiatives. Iteration is crucial, as it allows for the refinement and enhancement of the practice based on feedback and results. It also permits the incorporation of new information into the practice and adaptation to changing circumstances, ensuring that the best practice remains dynamic and effective. Moreover, iteration provides a means for organisations to monitor progress systematically, identify potential issues, and address them promptly. This is achieved through consistent review processes and feedback mechanisms, which play a crucial role

in pinpointing areas for improvement.

- **Impact on the business value chain:** A successful best practice should strategically target multiple facets of a restaurant's value chain. In simple terms, if a best practice can generate positive effects across various aspects of a business model, it becomes more compelling to implement and is likely to yield substantial impacts on both the day-to-day experience and economic outcomes. This holds especially true when comparing efforts and resources invested in a best practice with broad implications across a value chain to those invested in another practice with more limited effects. Choosing a practice with a comprehensive impact on the value chain ensures a more holistic enhancement of the overall business performance.
- **Driven by people, not by technology:** The foundation of exceptional customer service and the creation of a positive dining experience lies in the human element. While technology can undoubtedly enhance specific aspects of the restaurant, such as order taking and payment processing, it cannot substitute the personal touch and emotional connection inherent in human interaction. Furthermore, technology is susceptible to malfunctions, whereas human staff excel in handling unexpected

situations and attending to guests' needs. In addition, striking a balance is crucial, and this can be carried out by leveraging technology to enhance efficiency while ensuring that the human touch remains integral to the process. This approach acknowledges the irreplaceable role of human interaction in fostering a memorable and satisfying dining experience.

- **Potential of implementation and future growth:** Implementing a best practice in a restaurant not only enhances current operations but also positions the establishment for sustained competitiveness. Choosing a best practice with growth potential ensures that it can be further developed and expanded as the restaurant's needs evolve or new opportunities emerge. This adaptability enables the restaurant to proactively anticipate industry trends and meet the changing preferences of its customers. Moreover, a forward-looking best practice facilitates the scaling of operations, fostering increased efficiency over time. This operational optimisation, in turn, contributes to cost reduction and revenue growth, which are critical elements for long-term success. Beyond financial benefits, a best practice with future growth potential enhances the restaurant's appeal to customers, investors, and employees, fostering overall growth

and development. In the upcoming sections, we will explore, without pre-empting additional content, how the implementation of a single best practice naturally paves the way for the adoption of other effective practices, thereby creating a roadmap for digitising a restaurant.

Possessing these key features, a best practice can be considered a proven method or technique that can be relied upon to achieve the desired outcomes or goals in an effective and efficient manner. The reliability and proven efficacy of best practices contribute to businesses and organisations seeking to build resilience. Embracing these established and effective approaches enhances operational efficiency while also fortifying the capacity to navigate and overcome various challenges, fostering a robust foundation for sustained success and adaptability in dynamic environments.

Contrary to common belief, an impactful best practice – capable of generating positive outcomes in the short and medium term – does not hinge on the implementation of overly complex measures, revolutionary technologies, or extensive modifications to the restaurant business model in Europe. Instead, the potency of a best practice lies in its strategic alignment with the specific needs and operational context of the restaurant, emphasising practicality and achievable enhancements. By focusing on targeted improvements that

resonate with the existing framework, restaurants can effectively elevate their performance without necessitating drastic transformations. In essence, it is the thoughtful integration of solutions that proves instrumental in driving tangible and sustainable positive change, considering the aforementioned attributes.

3.3.2 Compilation of Best Practices for Restaurants

The RESTwithEU pilot project focuses on the identification of best practices for the restaurant sector in relation to three principal topics: changing leisure and travel behaviour, new ways of working, and sustainable management of food, particularly food waste. This approach facilitates the adoption of best practices in vital areas for the restaurant industry, particularly in light of the repercussions of the COVID-19 pandemic and the cost escalations stemming from Russia's invasion of Ukraine.

To elucidate the identified best practices in the most straightforward manner, we will reference the typical flow within a restaurant, as detailed in the preceding section titled "Traversing a restaurant's flows: Embarking on a diner's journey through the restaurant".

Let's delve into this process by carefully navigating through each of the seven stages, step by step. Along this journey, we will identify and highlight the best practices relevant to each stage. This exploration will

contribute to a complete understanding of the involved steps and the strategies that can be applied to enhance and digitise the entire diner's experience.

Step 1 – Discovery: Guiding Diners to Your Restaurant

To get customers to notice and consider your restaurant, the first step is to make sure they are aware of your restaurant's existence and what you offer. This is where effective online marketing and promotion come into play.

In today's digital age, most people use the internet to search for restaurants and decide where to eat. They rely on the information they find online to decide whether to visit your restaurant.



The significance of an online presence in the restaurant industry cannot be underestimated, as evidenced by various reports. For instance, the 2023 Diner Trends Report by TouchBistro² highlights that **a substantial 84% of diners tend to peruse menus online before making decisions about trying out a new restaurant.** Additionally, an impressive 80% of diners prioritise visiting a restaurant's website.

Further emphasising the role of online engagement, the same report reveals that **65% of diners conduct a Google search before finalising their choice of a new restaurant.** This demonstrates how search engines play a pivotal role in shaping diners' decisions. In addition, **41% of consumers consult social media platforms as part of their decision-making process,** reflecting the influence of these channels on the perception of dining options. An interesting insight has emerged from the data, with 14% of consumers even relying solely on social media to determine where they will eat, highlighting the growing significance of social media presence in the industry.

The impact of an online presence also extends to the decision-making process.

² TouchBistro, a Toronto-based company, is an all-in-one POS and restaurant management system that simplifies operations for over 29,000 restaurants worldwide. The company also annually publishes survey-based reports on dining trends, drawing insights from 600 full-service restaurant owners, presidents, CEOs, general managers, and area managers.

A striking 80% of diners utilise online resources to research dining options before making their selections, as emphasised by "The State of Digitalisation of the Hospitality Industry in Spain" report by the Basque Culinary Center Innovation³. It is essential to acknowledge that while specific percentages and details might fluctuate based on the source and geographical location, the central message remains resolute: **cultivating an active and compelling online presence is pivotal in both drawing diners and sustaining competitiveness in the dynamic landscape of the restaurant industry.**

Hence, your restaurant must maintain a prominent online visibility. By adhering to these best practices, which were uncovered during the research phase of the project, your establishment can enhance its digital footprint and effectively attract a greater customer base.

For this phase of the process, these are the best practices identified for the sector, which consolidate all the insights gathered throughout the research process.

³ The mentioned information references the availability of a study on the level of digitalisation in the hospitality industry in Spain, analysing more than 240,000 HORECA establishments in 2022. This analysis utilises the "Digital Horeca Profile" standard developed by BCC Innovation and Delectatech. BCC Innovation, a part of Basque Culinary Center, is a pioneering Technological Center in Gastronomy. Specialising in innovative methodologies, BCC Innovation aims to transform gastronomy and food industry globally through sustainable, cutting-edge business design and policy contributions.

Index	Best practice	Description
1	Online brand presence (restaurant website)	A website is one of the basics for every business. It can work as a platform that gathers and presents information for your business, such as service hours, the menu, or social media links. Moreover, it is usually the foundation for more advanced tools, such as booking, delivery, or ordering.
2	Manage social media channels	Social media is one of the main ways restaurants can get in touch with consumers and be discoverable on the internet. It is important for restaurants to effectively manage all their channels, including Instagram, Facebook, and TikTok. Having tools to organise publications is crucial to making this activity easier; however, strategy and content generation are critical to becoming successful in this area, which usually does not come with the tool and requires partners.
3	Review management	Online reviews are imperative as customers must let businesses know how they are doing and provide them with feedback. This tool is useful for new possible customers as they can know what to expect in terms of food, service, price, etc. Leaving this unattended can become a problem in the long term as bad reviews can stack up, which leads to fewer new customers. When those reviews are managed, you can use the feedback to improve certain areas or even boost your customer satisfaction.
4	Profile in 3rd party applications for restaurant discovery	By being listed on restaurant search engine aggregators, restaurants can reach potential customers who are searching for information on new dining options before making reservations. The creation of the profile in a third-party application includes information such as the restaurant name, cuisine, menu, location, hours, and photos, which help potential customers learn and make informed decisions about where to eat.
5	Search engine optimisation (SEO) management	SEO helps increase a restaurant's online visibility, attract more customers, and ultimately drive more sales. By optimising its website and online content with relevant keywords, a restaurant can rank higher on search engines, making it easier for potential customers to find them when searching for local dining options. Additionally, SEO can also improve a restaurant's reputation and credibility by providing valuable and accurate information about its menu, services, and location.
6	Digital marketing	Digital marketing is the use of digital technologies and channels to promote and sell products or services. It encompasses a wide range of strategies and tactics, including SEO, social media marketing, email marketing, pay-per-click advertising, content marketing, and influencer marketing. The goal of digital marketing is to reach potential customers who spend the majority of their time online.

Step 2 - Booking

Once a customer has selected a restaurant, they transition into the booking phase. This may entail making a phone call, utilising an online booking platform, or opting for a walk-in approach to secure a table. Efficient reservation systems and transparent communication with customers during this phase are critical for a seamless and positive dining experience.

Booking or reservation systems play a crucial role in streamlining the booking process for both diners and restaurants, guaranteeing accuracy and instilling a sense of reliability among patrons.



In recent years, the restaurant industry has undergone a notable transformation in its approach to managing reservations. With advancements in technology and the rise of online platforms, traditional methods of booking have been complemented and, in some cases, replaced by more efficient reservation systems. This shift has not only benefited restaurant owners and staff but has also significantly improved the experience for customers.

The fundamental shift lies not just in the preference of diners for faster and more convenient reservation systems, eliminating the need to directly contact the restaurant for table bookings. Rather, it is the challenge restaurants face in managing multichannel reservations, which becomes complex without proper methods or tools to assist in this process. While it remains true that telephone bookings still enjoy considerable preference, there is a growing annual trend towards utilising digital platforms for reservations.

During this stage of the restaurant process, two scenarios come together: the diner making a reservation, specifying details such as date, time, and the number of diners (along with any special requests or requirements, if applicable), and the restaurant management, tasked with recording and managing the reservation. Restaurants can enhance the booking process by incorporating the following best practices:

Index	Best practice	Description
7	Digital platform for table booking (reservations)	A restaurant reservation system allows diners to easily book tables online or through a third-party app. It typically involves selecting a date, time, party size, and location and confirming the reservation. Restaurants can have their own system on their website or use a third-party platform to allow diners to make reservations from a single app, providing flexibility and helping restaurants manage seating capacities.
8	Booking management system (restaurant point-of-view)	This best practice allows an efficient and organised scheduling of reservations and table allocation. From the restaurant's perspective, this tool helps to optimise staffing, manage customer flow, and ensure smooth operations. It provides a centralised platform to keep track of bookings, manage waitlists, and handle customer data. The use of a booking management system can help restaurants plan for busy periods better, improving the overall dining experience for customers and increasing operational efficiency.

Step 3 – Preparation

The restaurant must ensure that the premises, food, and all necessary preparations are in place for the arrival of diners, irrespective of whether they have made a reservation during the preceding phase. While the information gathered earlier proves valuable for optimising ingredient calculations, table arrangements, and staffing requirements to meet demand, these tasks primarily fall within the internal realm of the restaurant, i.e., the back office, as previously defined.

According to industry experts, it is a prevalent issue for restaurants to operate without comprehensive business information, leading to decisions being made without a full understanding and

resulting in avoidable expenses and financial losses. This phase is intricately linked to this concern. Preparation entails the meticulous acquisition of ingredients and fostering strong relationships with suppliers to guarantee that no menu item is deprived of essential components or ends up in unnecessary surplus. Essentially, it involves optimising the entire supply procurement process and diligently monitoring the status of ingredients to prevent wastage caused by uncontrolled expiration dates or misplaced documentation.

In tandem with the precision of ingredient acquisition, the restaurant must strongly emphasise food safety management. Stringent protocols should be in place to ensure that each step, from storage

to preparation, adheres to the highest safety standards. This commitment not only safeguards the well-being of the restaurant's patrons but also contributes to the overall reputation of the establishment. As highlighted in TouchBistro's 2023 Diner Trends Report, a recent health inspection warning would discourage 71% of diners from choosing a particular restaurant, underscoring the critical link between hygiene practices and customer perception.

Let's underscore a critical strategy highlighted by industry experts during this phase: the meticulous control of pricing for each dish on the menu. The ongoing economic inflation in Europe has resulted in significant price hikes for key ingredients, posing a challenge for restaurants. Faced with this dilemma, establishments find themselves at a crossroads: either increase dish prices or explore alternative business approaches. The intricacies of calculating the worth of each dish, factoring in the rising costs of individual ingredients, and managing portion sizes and weights are complex tasks that cannot be efficiently executed mentally. Leveraging tools that facilitate these calculations becomes an invaluable opportunity for businesses navigating this economic landscape. While diners may not completely abstain from visiting restaurants in the face of price increases, a discernible reduction in visits may be anticipated. Thus, it is recommended that businesses adhere to best practices when calculating prices, as emphasised

in the TouchBistro 2022 Diner Trends Report, which introduced a trend of "Moderating Menu Price Sensitivity".

In this phase of the process, we encounter the final preparations, including essential tasks in the kitchen. It is highly recommended to digitise recipes, ensuring consistent and exquisite quality in every dish and mitigating the impacts of typical staff turnovers in the industry. Additionally, meticulous control and maintenance of machinery are essential to prevent any disruptions when a diner steps into the restaurant.

To summarise, the best practices identified for this phase include the following:

Index	Best practice	Description
9	Digital check-in system for reservations	In the restaurant industry, last-minute cancellations and no-shows can have a significant impact on the operation of the business, resulting in financial losses and disruptions to the restaurant's resources. The reasons for last-minute cancellations can vary, but they all have a common denominator: they can leave the restaurant with empty tables, wasted food, and a loss of revenue. Applying a digital check-in solution not only ensures that the restaurant has accurate information on the number of guests to expect but also minimises no-shows. Additionally, it may also provide an opportunity for the restaurant to gather more information from the customer, such as dietary restrictions, special requests, or allergies. This information can then be used to optimise menu offerings and improve purchasing decisions from suppliers, ultimately minimising food waste.
10	Manage social media channels	Prior ordering refers to a best practice where customers can place their orders before coming to the restaurant. Prior ordering helps reduce wait times, ensuring that orders are ready when customers arrive. Moreover, it is also possible to make better provisioning of the inventory, avoiding wastage of food.
11	Review management	This refers to the process of coordinating and collaborating with suppliers to ensure that materials, products, and services are delivered in a timely and cost-effective manner. Effective supplier management involves identifying and selecting suppliers, establishing contracts and agreements, monitoring supplier performance, and managing relationships with suppliers. The goal of supplier management is to ensure that suppliers meet the organisation's needs and expectations and that the supply chain is efficient, reliable, and cost-effective. By implementing effective supplier management practices, organisations can reduce risks, increase efficiency, and improve overall business performance.
12	Orders, purchases, and delivery management automation	Automated and digital orders, purchases, and delivery dates can help in organising and accessing all the information whenever required. The use of digital tools that can send alerts, for example, with the date of delivery may relieve the attention in this area, focusing on other parts that may be more pressing or relevant.
13	Inventory tracking digitisation (internal operations)	Stock and inventory are one of the key points that require significant attention. Not only is it important to know when and what to buy so that you can offer the whole menu, but it is also essential from the food safety perspective. Tracking expiration dates, when a product was open, and the number of times it has been used is important to preserve the security of your diners.

Index	Best practice	Description
14	Food safety management	This is an essential practice to guarantee the health and well-being of customers as it involves implementing measures such as proper food storage, employee hygiene, cleanliness, food sourcing from reputable suppliers, and record keeping. These actions ensure that the food served is free from contamination and harmful substances, building customer trust, and avoiding foodborne illness outbreaks, which can have costly consequences.
15	Dish pricing (menu engineering)	Menu engineering is a technique that helps in improving pricing strategies in restaurants by analysing menu items to gauge their popularity and profitability, before prices are adjusted accordingly. Setting dish prices is a crucial step for a restaurant to comprehend its business costs and identify areas for optimisation in spending.
16	Recipes digitalisation	The digitalisation of recipes opens a new way of managing your offered menu. Pricing the dishes is simplified, making updates easier when necessary, and enhancing storage and usability in the kitchen. It also provides new ways of automation, linking them to the kitchen, POS, or even the stock, which can be updated in real-time as orders go out of the kitchen and reach the customers.
17	Machine maintenance	Maintenance in the restaurant can improve the functionality and increase the operation time of your machines. Modern machines with sensors can help in this activity only when required and pinpoint specific problems as and when they occur, which leads to the prevention of leaving them unattended and reducing the possibility of the problem being accelerated.

Step 4 - Arrival

The next phase is arrival, where customers physically enter the restaurant. Diners arrive promptly for the reservation, assuming no delays or early arrivals, which can potentially lead to minor unexpected incidents in the service organisation. The waitstaff guides the diners to their designated tables based on the pre-arranged seating plan. This is an

opportunity for the establishment to make a positive first impression by providing a welcoming atmosphere and attentive service. Clear signage, friendly staff, and prompt seating contribute to a smooth transition to the restaurant's environment.

Up to this juncture, the management should flow seamlessly: ingredient organisation must be meticulous, the chefs must be prepared to execute orders

as they come in, and the waitstaff should be ready to receive orders and offer tailored recommendations to each diner. Beverages must be promptly served to the patrons. Having a comprehensive overview of the entire service is essential to efficiently manage all tables, accurately record orders, and ensure they reach the kitchen promptly and without errors.

Once the service begins, the following best practices can be employed:

Index	Best practice	Description
22A	Table management (in-room service)	It involves efficient and effective organisation and utilisation of tables and seating areas in a restaurant. This includes optimising table placement and layout, ensuring prompt and seamless service, and maximising the utilisation of seating capacity.
22B	Order management (out-of-restaurant service - consumption takes place outside the restaurant) ⁴	
23	Automation of orders (directly from waiter or diner)	When sending orders directly from the waiter (digital ordering), the time of preparation of the dish can decrease. This means less chances of making mistakes and an easier process. There are opportunities in how the orders are displayed in the kitchen.

⁴ Ordering and arrival can happen in the reverse order. Payment can be made before the food is taken away. This holds true, especially for takeout or delivery orders, where payment is typically requested before the meal is enjoyed.

Step 5 - Restaurant Service

At this stage, diners place their food orders, enjoy their meals, and proceed to settle the payment after being finished with the meal. This marks the fundamental phase of the entire process, considering that everything described thus far has been the preparation leading up to this moment.

While every restaurant is unique, they all share a common purpose: providing food for their diners. The journey to the table may vary depending on each business's options (resources, type of restaurant, or location); however, the ultimate goal for the diner remains consistent - to have an enjoyable and satisfactory dining experience.



This phase stands as the most extensive among all stages, not in terms of duration - although the preparation and booking processes may take longer, from the moment the diner discovers

the restaurant, makes a reservation, and waits until the scheduled date - but due to the intricate details and the wealth of best practices we have uncovered within it. Therefore, we have segmented the phase and its best practices into three distinct sub-phases: ordering, table delivery and consumption, and payment.

Ordering

This stage marks the point where diners make their selections from the menu, placing orders for their desired dishes and beverages. The waiter in the dining room must be attentive to the optimal moments for taking orders, promptly addressing customer requests and inquiries and swiftly relaying the order to the kitchen. It is imperative to ensure that customers feel attended to promptly, from the moment they enter the dining room until they depart, for a positive dining experience.

Within this sub-phase, significant interaction points come to the forefront, including the design of the menu. This is because the process involves attentive interaction between the waitstaff and diners, ensuring that preferences are noted and any special requests are acknowledged. Notably, the prevailing trend, particularly heightened by the COVID-19 pandemic, leans towards digital menus. Additionally, the emergence of autonomous ordering options, where diners can place orders independently through kiosks, screens, or mobile

applications, represents a notable aspect of this sub-phase.

Once the order has been placed, it needs to be promptly relayed to the kitchen for preparation. In the kitchen, the culinary team orchestrates the preparation process, utilising screens, printers, or

other devices to monitor and coordinate orders. This seamless communication with the dining room staff ensures that every dish is served punctually and with the quality it deserves.

The following list contains best practices for this part of the process:

Index	Best practice	Description
18	Digitalising the menu	Contactless or digitalised menu software are digital tools that allow restaurants to provide customers with a digital menu option. These menus can be accessed via customers' smartphones, tablets, and computers, allowing them to browse the menu without having to physically handle a menu or interact with the waitstaff for the matter, and can be a great way to help maintain a safe and healthy dining experience.
19	Hardware for the customer to request orders	This best practice involves providing customers with the necessary technology, such as tablet devices or touch screens, to place their orders directly at the table. This not only streamlines the ordering process but also reduces the risk of inaccuracies in orders and improves the overall dining experience.
20	Software for requesting orders	This best practice involves providing customers with a digital ordering platform, such as a restaurant app or online ordering system, to place their orders directly from their personal devices.
23	Automation of orders (directly from waiter or diner)	When sending orders directly from the waiter (digital ordering), the time of preparation of the dish can decrease. This means, less chances of making mistakes, and easier process. Furthermore, there are opportunities for improvement in the way orders are sent to or displayed in the kitchen.
45	Food delivery	Given that food delivery has become a popular consumption method for several customers and is currently emerging as a new mass consumer habit, this consumption channel should be reflected upon and analysed by restaurants to propose it as another line of revenue for the business. Restaurants should consider offering their own delivery service in addition to partnering with third-party platforms.

Index	Best practice	Description
46	Food takeout/ takeaway services for restaurants	As consumer habits continue to evolve, more and more customers are looking for convenient ways to enjoy their favourite foods without having to dine in. Takeaway food services have become increasingly popular, and restaurants can tap into this trend by offering takeaway options. By providing customers with the option to order takeaway, restaurants can cater to a wider audience and increase their sales. Takeaway food services are ideal for customers who are short on time or prefer to eat in the comfort of their own homes.
47	Catering solutions	Apart from providing in-room dining services, restaurants can generate a new stream of revenue for their business by extending their catering services to corporate events or by operating food trucks or similar ventures.
21	Command management system	Providing tools to servers so that they can get the commands faster (with a digital app, for example) can increase the efficiency of this task. This digital tool can be updated so that servers can inform the customers beforehand if a dish is not available (out of stock) or even offer discounts if certain food needs to be cooked before expiration. This change opens the door for more automation, such as sending orders directly to the kitchen.
23	Automation of orders (directly from waiter or diner)	When sending orders directly from the waiter (digital ordering), the time of preparation of the dish can decrease, there are fewer mistakes, and the process becomes easier. There are opportunities in how the orders are displayed in the kitchen.
24	System for reducing waiting times for service calls and waiters	This is a system that aims to improve the customer experience by reducing wait times for service requests and ensuring prompt and efficient service. It may include technology such as digital ordering and payment systems; hardware (customer pagers or beacons or robots); as well as processes for efficiently allocating and managing staff resources. Implementing such a system can lead to increased customer satisfaction, improved operational efficiency, and increased revenue for the restaurant.
25	Automated stock and digital recipes	When the stock and recipes are digitalised, there is an opportunity to link both. Therefore, when a dish is prepared, the ingredients are automatically updated in the stock. This can help in preventing selling dishes when there are not enough ingredients, buying stock on time, and acknowledging the frequently used ingredients to ensure that buying and storing are optimised.

An important trend to highlight is the surge in takeout or delivery services observed in recent years. According to a Deloitte report titled “The Restaurant of the Future Should Evolve to Serve Consumers in New Ways 2021,” more than half of consumers (57%) currently use a digital app to order restaurant food for off-premises dining, showing an increase from the percentage observed in 2020 (54%). Notably, the growth of digital ordering within the restaurant premises is even more rapid, with nearly two-thirds of consumers (64%) expressing a preference for digitally placing their food orders, compared to 53% in 2020. This inclination towards digital ordering persists, even if it entails reduced interaction with waitstaff.

Table delivery and consumption

In this sub-phase, the culmination of the dining experience takes centre stage. Here, the dedicated waitstaff meticulously delivers the dishes to diners, ensuring a pleasant service. After receiving their ordered dishes, diners taste and enjoy the food.

This phase embodies a circularity as waiters remain attentive to the needs of diners, whether it involves refilling drinks, taking additional orders, or promptly addressing any requests that may arise. The rhythm of this circular process is harmonised with the continuous cleaning and maintenance efforts, ensuring a consistently welcoming and pristine

environment for diners throughout their culinary experience.

Although the significance of excellent service and customer care is paramount, no specific best practices have been pinpointed in this sub-phase.

Payment

Ultimately, as the dining experience concludes, the moment arrives for settling the bill. The diner requests the bill and proceeds with the payment. In recent years, technological advancements have revolutionised payment options, rendering obsolete the conventional use of cash. In the present day, customers can effortlessly settle bills using cards or through the convenience of mobile phones or wearable devices. The order information, meticulously recorded by the staff, integrates with the POS system, facilitating payment processing and concluding the account for each table.

These recommended practices provide restaurants with streamlined approaches to facilitate payments and record transactions:

Index	Best practice	Description
26	Digital payment for diners	It involves offering customers the ability to pay for their meals using electronic payment methods, such as credit cards, debit cards, mobile payment apps, and other digital payment methods. Offering digital payment options can also improve the overall customer experience, as diners may appreciate the convenience and speed of electronic payment methods. This may include a system for paying directly via web or app solutions, without involving the servers.
27	POS system	A point-of-sale (POS) system for restaurants is a computer-based technology that streamlines the payment process in the restaurant. It typically includes hardware such as a touch screen terminal, cash drawer, barcode scanner, receipt printer and card reader, as well as software that may include menu management, ordering, billing, inventory tracking and reporting capabilities.

Step 6 - After-Sales Service

The restaurant's journey and its operational flow extend beyond the moment when the diner settles the bill and departs the premises. There are ample opportunities to enhance the post-meal experience further. As mentioned in the initial phase, diners frequently turn to the internet for venue selections, often relying on restaurant reviews to inform their decisions. This is the opportune moment to prompt customers to share their feedback by rating the service and food. Consistency is key in responding

to these reviews, such as expressing gratitude for positive feedback and, in the case of negative reviews, responding with politeness and respect to mitigate any potential harm to the restaurant's reputation.

In this phase, we have identified and recommended effective practices to minimise food waste, exploring alternatives to prevent unnecessary food disposal.

These, therefore, constitute the following best practices for post-service:

Index	Best practice	Description
29	Encourage diners to make recommendations, post reviews, etc.	Diners' reviews can be one of the main sources of feedback and improvement. Moreover, recommendations are the main reason diners try new restaurants, so encouraging those two things can be beneficial for the business.
30	Food waste measuring and tracking solutions	This best practice involves using technology and data analysis to measure and track the amount of food waste generated by a restaurant. This information can then be used to identify areas of waste and implement strategies to reduce it. Adopting measuring and tracking solutions for food waste can help restaurants reduce their costs and improve their sustainability and waste management practices while also providing valuable data and insights to help with decision-making.
31	Alternative uses for surplus food	This best practice involves finding creative ways to use food that would otherwise go to waste. This may include donating excess food to local organisations, such as food banks or shelters, or repurposing surplus ingredients in new menu items. Implementing alternative uses for surplus food can also enable restaurants to reduce their waste and costs, improve their sustainability and waste management practices, and support local communities. This best practice also includes finding ways to prioritise the use of ingredients that are close to their expiration date, such as by offering special deals on menu items made with these ingredients.
32	Packaging of surplus or deliveries (sustainable packaging)	Implementing sustainable packaging can help restaurants reduce their waste and environmental impact, improve their sustainability practices, and meet the growing demand for eco-friendly solutions.
35	Cleaning management (monitoring, control) ⁵	This best practice includes regular, scheduled cleaning, training employees on proper cleaning procedures, and conducting regular inspections to ensure that cleaning standards are being met. Implementing a cleaning management system can help restaurants maintain a clean and hygienic environment, reduce the risk of foodborne illness, and meet health and safety regulations.

⁵ This best practice spans the entirety of the restaurant's workflow, encompassing the need for cleanliness before diners arrive, maintaining cleanliness throughout the service, and ensuring a thorough cleaning once the customer departs the premises.

Step 7 – Repeat or Recommend

As we reach the final stage of the operational flow, the objective is to create a cyclical engagement rather than a linear progression. If a diner departs feeling content, having relished both the food and service, the customer might foster loyalty, either through return visits or by recommending the restaurant to friends, family, and acquaintances. This forms a link back to the initial phase, signifying a desire to revisit your establishment.

Therefore, maintaining excellent, attentive, and detailed service throughout the entire process is paramount. According to McKinsey & Company's report "What's next for

digital consumers," 38% of consumers believe that the best way to enhance their experience is by offering comprehensive end-to-end services and 22% emphasise improvements in after-sales services. Numerous strategies can help in achieving this goal, with a noteworthy best practice being the implementation of a loyalty program. As an example, the report from Deloitte titled "The Restaurant of the Future Should Evolve to Serve Consumers in New Ways 2021" emphasises the importance of loyalty programs. According to the report, a typical consumer actively participates in two restaurant loyalty programs, and a substantial 79% acknowledge that their involvement significantly impacts their dining decisions.

Index	Best practice	Description
33	Digital solution for user engagement (loyalty programmes and strategies)	This best practice enables customers to earn rewards for their purchases, such as discounts, complimentary items, and exclusive offers. The loyalty program may personalise the customer experience by monitoring order history and preferences. With a digital solution, restaurants can efficiently monitor and reward customer behaviour, build customer loyalty and gather valuable data for insights.

Non-culinary processes

While not directly integrated into a diner's service flow, restaurants are also responsible for overseeing diverse non-culinary operations, such as human resources, finance and analytics, tax

and bureaucratic compliance, and cybersecurity. These aspects are just as crucial to the business as those discussed earlier, albeit centred on the back-office and management facets. The following outlines best practices for handling the non-culinary processes within a restaurant.

Technology and Infrastructure

Index	Best practice	Description
36	Tech infrastructure (including WIFI, internet, network, and tech systems)	Installing tech infrastructure is the first step required to implement, in one way or another, most of the best practices. Furthermore, some of them can even be beneficial for the customers.
37	Cybersecurity management	Cybercity might be seen as unimportant to small businesses; however, in reality, they may suffer from cyberattacks too, which can be impactful for smaller businesses.
38	Digitalising documentation	Moving from print paper to digital documents can improve management and access. It becomes easier to organise information without physical or space limitations, and one part of the business can be linked or automatised with other parts.
39	Automated digital documents	Such tools help in the process of digitalising documents.

Human Resources

Index	Best practice	Description
40	Automate employees turn management	Creating turns for your employees can become a time-consuming task. Considering daily and weekly working hours, holidays, or even workload makes this task difficult to get right the first time and keep your employees happy. Automatising this task will help to design turns easily and can be linked to other areas (such as booking) to organise and predict the required workforce.
41	Measure employee performance	Tracking the performance of your employees can help you assess how they work while also detecting problems. With this information, it is easier to make decisions that will benefit the business.
42	Digitalising and gamification of training	Using digital tools and gamification for training can improve its quality and uniformity. Relying on other employees to undergo training may cause friction, worsen the quality of the service during that period, and create inconsistency between workers, damaging the service standard and causing problems.

Index	Best practice	Description
43	Team feedback and co-creation	Including the team in the feedback and cocreation of new ideas or fixing problems can increase the probability of their success. A team usually has a varying vision and knowledge that comes from field experience and can provide insights that might have been overlooked.
44	Better internal communication	Providing adequate internal communication tools can improve how the team share knowledge, experience and problems. This can reduce the time to acknowledge and fix problems related to the restaurant or employees, which should improve costs and efficiency.

Financials

Index	Best practice	Description
28	Checking business data - Business insight	One of the main actions restaurants can take to become more resilient is to know their business. Every tool that can help in showing data and how to use it should be useful for this idea. When owners know how the business is performing with data, they can make better decisions and change a few aspects due to shocks as they are based on data.
34	Digitalising and gamification of training	Using digital tools and gamification for training can improve its quality and uniformity. Relying on other employees to undergo training may cause friction, worsen the quality of the service during that period, and create inconsistency between workers, damaging the service standard and causing problems.

All in all, we emphasise once more that the compilation of best practices represents universally beneficial approaches that have demonstrated success in various restaurants. However, each restaurant must determine which practices

should be prioritised, considering that some of them may already be in place. Hence, the subsequent sections of this guidebook provide tools, information, and comprehensive details on the implementation of these best practices.

4. Examples of Successful Implementation of Digital Solutions

Case studies and testimonials depicting the successful adoption of best practices within small- and medium-sized restaurants.

The guidebook defines best practices with the assumption that widespread implementation of these practices within a business will yield its associated benefits. Nevertheless, due to the unique nature of each restaurant, the application of each best practice may vary. For RESTwithEU, it became imperative and pertinent to test certain best practices in authentic settings, utilising existing European digital solutions available in the market. In this context, various pilot tests were conducted to comprehend the digitalisation process pertaining to diverse aspects and challenges faced by restaurants.

The path toward digitalisation extends far beyond the mere adoption of technology, as it involves instigating a shift in culture and habits to enhance overall business functionality. This includes the integration of digital tools and processes; nonetheless, the ultimate goal is to ensure that each aspect of restaurant operations aligns with a meaningful purpose. Therefore, we will guide you through the process with recommendations and step-by-step instructions following the presentation of first-hand accounts and experiences shared by various restaurants. This will allow us to explore the process and understand the impact of adopting technology.

Throughout this exploration, we underscore the importance of drawing insights from tangible successes and invaluable lessons derived from these

experiences. This will be presented in the form of a use case, illustrating the restaurants and solutions engaged, the methodology employed, the intended purpose, and the achieved outcomes.



4.1. Case Study: Improving the Digital Presence; Meat Steak House and Verkiai Proving Boost Eat

In today's fast-paced digital landscape, a restaurant's digital presence has transcended being just a supplementary asset, as it is almost mandatory for the restaurant's success. Social media, third-party platforms, or a restaurant's website provide new tools and ways to interact with customers long before they come to the business. Building a community, facilitating access to the menu or open hours, and allowing booking or online ordering are some of the processes that can impact a business's wellness due to its digital presence.

We will review two case studies that addressed Challenge 1 - Digital presence: Connecting with diners. These restaurants had two different businesses and goals; however, they

worked with the same solution provider, eatable technology (Boost Eat), a white-label user-centric marketing and sales Software as a Service (SaaS) that facilitates restaurant revenue management practices through options such as online ordering, reservation, and order and pay at the table.

4.1.1 Verkiai

In this first case study, we will see how Verkiai, a family-owned restaurant in Lithuania that primarily focuses on fine dining, improved its digital presence with the help of eatable technology (Boost Eat). The goal of the pilot was to create a website that attracts and retains customers and facilitates the process of making a reservation. This pilot differed from others as the business's main offering was the booking of the place, rather than everyday dinner.

This led to a few specific challenges unique to this kind of business; however, it served as a good opportunity to depict the restaurant its importance to understanding the objective and the manner in which the solution provider can usually customise their offering to match the objective. The main goals for the pilot included:

- Creating a 3D tour of the place
- Ensuring a responsive website
- Implementing event packages, contact, and pre-booking

With these clear objectives, the restaurant and the solution provider started implementing the ideas.

Implementing the Tool

As stated earlier, this restaurant had specific needs that the solution provider could not fulfil by itself. In this case, the main problem was the inclusion of a 3D tour, which required a third-party provider. Therefore, the project was divided into the following steps:

- Find and create the 3D tour provider
- Develop a website that can integrate both the solution provider system and the 3D tour
- Gather and add all the additional data and information regarding the restaurant and venue
- Implement SEO good practices and additional functionalities

The creation of the 3D tour was completed without any issues. Once a valid company was found, they were approached for this pilot. The company started the recording of the venue to create the 3D tour. This feature was integrated into the website and was available on both computer and mobile devices.

The website was created in WordPress. The restaurant selected a template and

provided all the information regarding the restaurant, which the solution added to the website, such as the "About us" page.

The last step was to add the rest of the functionalities, such as a pre-booking form (so that customers could ask for a quote giving the necessary information), analytics, and notifications for the admins of the platform.

What Did We Learn from This Experience?

- The website must be optimised for mobiles, especially if it has specific features, such as 3D tours.
- Employing templates for the creation of the website would accelerate the design and development; however, this approach needs to fit the business.
- SEO cannot be left behind, since it increases the visibility of the website. Therefore, the allocation of resources for this task when facing a website development project is crucial.
- Using third-party integrations is always a risk. Establish good communication to be able to work together and solve any issues or incompatibility. It is recommended to increase the deadline to be able to face unexpected glitches or downtimes during the development.

How Was the Experience from the Restaurant's Perspective?

When the pilot ended, a form was sent to the restaurant to assess their experience and learning.

- The pilot experience was rated a 7 out of 10.
- The 3D tour allowed them to show the venue in a better way, providing more information to the customer without the need to visit the place in person.
- *"We make better contact with customers, and it help us assisting the introduction of the premises online."*
- They kept the tool as *"it increased sales"*.
- It has inspired them to continue their digitalisation. They are aiming to introduce sales of service packages directly from the website.

4.1.2 Meat Steak House

For this second case study regarding digital presence, we will analyse how Meat Steak House faced the challenges. Meat Steak House is a restaurant owned by a renowned chef (Le Cordon Bleu graduate and Michelin-starred experience) who offers premium beef in the country, with open flame grilling. It provides service in two venues, one with 70 seats and the other with 80 outdoor

seats and 30 indoor seats. The goals of this pilot were as follows:

- Find an easier way to take commands
- Avoid loss of time and fails in the table-kitchen process
- Integrate multiple processes in one platform to avoid paper and manual processes
- Expand business with takeaway

With the goals well defined, the tool implementation journey began.

Implementing the Tool

As seen earlier, the project was divided into various categories to depict the different parts of the process:

- Configuration of the tool with the information on the digital menu and restaurant
- Integration with the POS system
- Configuration with the kitchen and room process (printer and tablets)
- Photography sessions for the menu
- Onboarding and training of the solution and new processes

The first step consisted of creating the menu. Although it appeared easy, working

with a company from another country turned out to be problematic due to the language barrier. However, once these issues were resolved, the restaurant acquired access to the back office of the tool and was able to add all elements to the menu.

The integration with the POS system also required attention, as there were technical issues that needed to be resolved. The POS needed to send the API to Boost Eat as it was not supported at that time; however, the integration was too expensive and could not be tackled during the pilot. Therefore, a payment integration into Boost Eat was considered an appropriate solution.

During this process, the restaurant added printers and tablets to the restaurant, and the servers could send the orders directly from the table to the kitchen, which provided them with a ticket. This was possible thanks to the functionalities of the solution provider.

Since the restaurant aimed to provide a fine dining experience, during the pilot, the restaurant ordered a photo session to have professional images taken for the menu and the website.

As in every process, the last step was testing and training to make sure that the orders reached the kitchen and were registered by the POS, and the payments efficiently made through the system.

What Did We Learn from This Experience?

- POS compatibility with solutions is not always a given. When choosing solution providers, make sure that they are compatible with each other.
- Different businesses have various experiences. If you have a fine dining place, your process might be different than that in a fast-food restaurant, as your customers will be seeking different things.
- Staff can manage various levels of digitalisation. If your employees do not have the capacity for adoption, implementation might not be successful. Make sure to provide proper training and make gradual implementation, if needed.
- Languages might pose a problem during communication and software implementation from solution providers from other countries.

How Was the Experience from the Restaurant's Perspective?

When the pilot ended, a form was sent to the restaurant to assess the experience and their learning.

- The pilot experience was rated a 10 out of 10.
- *"We improved the e-shop and its*

management. Now we have the opportunity to print dishes stickers straight from the order."

- *"It helps to be more productive and generate more sales."*
- They opted to keep using the digital solution, because *"we are now more digital. It is very comfortable for our guests, and we save time of our personnel and increase the sales."*
- The tool *"allows us to have a takeaway shop. It is comfortable for the guests."*
- It has inspired them to embrace digitalisation in their business. They are now considering implementing QR codes for the guests to make the orders directly and changing the kitchen printer with screen and interactive computers to update orders to the waiters.



4.2. Case Study: Gathering and Using Business Data

Gathering and using business data in a restaurant has emerged as a transformative tool that can revolutionise the manner in which businesses operate

their decision-making. Adopting data management systems that gather, analyse and create insights into your business operations and your customers' preferences and behaviours not only provides you with apt knowledge of the well-being of your restaurant but also enables the possibility to create a better experience for your customers.

In this case study, we will observe how Botilia Sto Pelago, a family-owned bar, pub and café, faced the implementation of these systems. Located in Preveza, Greece since 2012, it has grown from a small art café to a full beer pub with a diverse selection of beers and cocktails. Thanks to a charming mix of local and imported plants, metalworks and artworks from local artists, this business can seat up to 130 guests and host a diversity of events. For this pilot, InfinityMobile from Belgium was chosen to accomplish the task of implementing their customer loyalty and engagement platforms, which integrate web3 and commerce capabilities and help restaurants manage multiple sales channels, thereby collecting and activating customer data.

The pilot program involved them to address **Challenge 5 - Business Insights: Gathering and Using Data (Data and Market Intelligence)**. The objective was to gather data and market intelligence through the implementation of a customer identification segmentation and loyalty programme for clients at the restaurant. Understanding and incorporating the

client's needs and feedback is a pillar of a restaurant's strategy within the European Union. The goals were to:

- Create an online ordering catalogue
- Acquire customer identification
- Introduce a loyalty programme
- Employ digital marketing
- Add a digital payment system to the ordering

With this general guideline, both the restaurant and the solution provider started working on the implementation.

Implementing the Tool

The implementation of the tool followed the same path as the goals described before. The first step was to create the digital presence of the restaurant through Sayl digital menu solution, the solution provider commercial name. This task is critical as it lays the foundations of the whole project. The activities followed were:

- Set up the account
- Prepare the material (menu, pricing, payment options, look and feel, etc.)
- Create the landing page
- Check payment providers

The second part was about setting up the loyalty programme. For this part, the main difficulty comes from the ownership and staff. The tool already provides the technical part of this programme, but the staff need to get familiar with it to be able to deliver a good experience to the customers who want to benefit from it.

The next milestone was customer identification and data analysis. As with the second step, the tool has the mechanism to gather and show the data, but the responsibility for the usage resides at a management level, which needs to invest time and empower staff to be able to get insights and conclusions and have implications in marketing efforts.

The final activity was implementing and testing the new processes. In this case, it involved testing the ordering journey, from digital ordering to customer identification and loyalty programme setup, to hardware connections such as printing orders in the kitchen. This final step is what integrates the new process into the restaurant operations. Hence, before this process is made live to the public, it is critical that the process has been tested and the whole staff have been trained to solve any new problem along the way.

What Did We Learn from This Experience?

- In this type of digital solution, the management must be fully on board, as it requires their efforts in time and

culture to be able to reap its benefits.

- Training is usually required; however, with the implementation of more complex tools like this one, it becomes more relevant. Not only is it important to learn to use this tool, it is also imperative to understand and use the data gathered. The loyalty and marketing part of this tool might be difficult to implement in less tech-savvy businesses.
- Payments can cause complexities while implementing digital tools, especially when working with other countries. As seen in other pilots, special laws and requirements of countries must be fulfilled and not every partner/solution might comply with these requirements.

How Was the Experience from the Restaurant's Perspective?

- When the pilot ended, a form was sent to the restaurant to assess their experience and learning.
- The pilot experience was rated a 7 out of 10.
- *"We learned how to create a digital catalogue, create a website, manage digitally received orders and digital payments, among other things related to the tools of the software provider."*
- *"We adopted a custom digital*

catalogue and digital ordering system. From our data, customers heavily preferred ordering to the available waiters instead of the solution. Presentation and implementation were a big contributor for these results, but the solution itself seems to be a difficult fit for most places in Greece.”

- They do not intend to keep using the digital solution, because “*the tool prohibited operational costs.*”
- The tool “*enables us to have faster operations with less mistakes, makes us more effective and efficient.*”
- It has inspired them to continue their digitalisation. They are aiming to introduce PDAs for servers, create a newsletter, and improve the loyalty system.



4.3. Case Study: Implementing a Booking System

Introducing a booking system in a restaurant has demonstrated a transformative impact on the reservation process, bringing about significant improvements in both the booking

procedure and its management. This not only enhances the customer experience by providing easier reservations, but also aids the restaurant in organising space, managing customers, and handling reservation changes and cancellations. Furthermore, it has the potential to reduce the occurrence of no-shows.

In this case study, we will delve into the operational journey of Antica Trattoria Suban 1865, a family-owned Italian restaurant nestled in the heart of Trieste. With a rich history dating back to its establishment in 1865, the restaurant has been cherished through generations, preserving culinary traditions and prioritising customer well-being. The restaurant, boasting a team of 15 dedicated employees and accommodating up to 90 guests, sought a comprehensive solution to streamline its operations. It is a known fact that family-owned businesses usually prefer a lower level of digitalisation, as the know-how usually dates from the beginning of the business. The same was the case for Antica Trattoria Suban.

Hence, we introduced Superb, the selected solution for our case study and an all-encompassing platform crafted to transform restaurant management. Superb integrates reservation management, POS capabilities, payment processing, and takeaway services. It was the perfect ally for a restaurant steeped in legacy, just like Antica Trattoria Suban.

As part of the RESTwithEU project, the pilot program specifically tasked Antica Trattoria Suban 1865 with addressing **Challenge 2 - Facilitating booking: Easier reservation management.** Against this backdrop, the restaurant managed reservations using manual procedures. To secure a reservation, customers were required to either call the restaurant or visit in person beforehand. Phone reservations were then handled by the waitstaff and recorded on paper. However, this approach posed challenges, as staff members could not occasionally answer the phone promptly due to other responsibilities such as taking orders or serving food. These circumstances led to various issues:

- Whenever a waiter was unable to answer the phone, **a potential new reservation or cancellation** (which could open up the opportunity to accommodate someone else) was overlooked, with no guarantee that the customer would attempt to make contact again.
- **Paper-based bookings inherently carried a higher risk of errors**, as it was susceptible to miscalculations, overbooking, alterations to reservation names or numbers, and depending on the method, the possibility of misplacement.

The existing approach to managing bookings posed a potential risk of revenue loss, which could significantly impact

the future of the business. In addressing this challenge, Superb suggested the implementation of its booking module to streamline and improve the reservation process.

Implementing the Tool

Typically, when introducing a new operational method, the restaurant owner exhibits reluctance towards implementing a tool that would alter established practices. Primary concerns regarding the implementation of the tool included the apprehension that its adoption might burden the staff with additional workload, especially considering the existing challenges with managing phone reservations. Additionally, there was hesitation regarding the learning curve associated with adopting something new.

In addressing these challenges, Superb proposed a two-step implementation process:

1. **Transition from traditional pen-and-paper methods to a digital tool:** By making this shift, staff would only need to adjust the way in which they recorded reservations, while the remainder of the process remained unchanged.
2. **Integrate the tool with a website form:** Implementing a booking form on the website will diminish or eliminate the necessity of checking the phone and will facilitate reservations without manual data entry.

While not the ultimate implementation, this initial step aided the restaurant in grasping the functionality of the tool and its potential to alleviate staff workload, ultimately enhancing the experience for all parties involved. The primary benefits the restaurant stood to gain from adopting this tool and process were as follows:

- The waitstaff would experience a significant reduction in phone-related tasks, or potentially none at all if phone reservations are discontinued, since a substantial portion of bookings would take place online.
- Reservation management would become more efficient through automatic table organisation and real-time availability updates.
- A decrease in no-shows would be anticipated, facilitated by the ease of cancellations, automatic reminder functionalities, and the potential implementation of a waiting list.

The conclusive implementation process unfolded as follows:

- The restaurant completed a form to enable Superb to initiate the initial setup.
- A meeting was conducted to outline specific needs and details regarding the booking form.
- The solution was implemented on the website.

- The staff underwent training on both the tool and the newly established process.

What Insights Have We Gained from This Experience?

- Restaurants and businesses may encounter resistance or difficulties when adapting to new processes and tools. Effective solutions involve comprehensive training, support, and open communication to address staff concerns and ensure a successful transition.
- Integrating a new software or tool into existing operations and workflows can introduce unforeseen challenges. Compatibility issues or difficulties in synchronising the system with other tools may disrupt operations, emphasising the importance of thorough checks before the selection of a solution.
- Digital tools come with the risk of encountering technical difficulties unfamiliar to the staff or ownership. Adequate training and support are essential to enable staff to handle unforeseen events confidently.

What Was the Restaurant's Perspective on the Experience?

At the conclusion of the pilot program, a feedback form was sent to the restaurant

to glean insights into their experience and the lessons learned:

- The pilot experience received a stellar rating of 10 out of 10.
- Feedback from the restaurant included statements such as, *"It helped me save time, improve my ability to use a new application, and provided the customer the possibility to book even when we are closed or busy at work."*
- *"I've more time to carry out other tasks and when we are closed, I offer my customer the option to book a table or register on the waiting list, improving my work scheduling."*
- Expressing a commitment to continuing with the digital solution, as the restaurant found it to be easy, convenient, and effective in mitigating no-shows.
- The hope was expressed that more restaurants and colleagues would embrace similar growth opportunities.
- The positive experience has inspired the restaurant to further digitalise, with plans to enhance Hazard Analysis Critical Control Points (HACCP), refine ingredient traceability, and optimise inventory and order management.



4.4. Case Study: Keeping Food Safe

When talking about restaurant operations, it is easy to focus on those that are more related to the public, such as a website, the menu, delivery, table service, etc. However, there is one operation that is more important and impactful than all other operations: Food safety. Food is the main product in a restaurant; therefore, maintaining its safety not only ensures a high quality of the dishes served to the customers but is also critical due to the health implications.

For this case study, we will assess how Ritual (Sc Giovis Delivert SRL), a standalone restaurant established in 2018 and located in Deva, Romania, approached this challenge. Starting from a van, Ritual now boasts a 100 sqm restaurant that focuses on healthy, vegan and wellness menus, with a commitment to promoting nutritional and culinary knowledge through their academy. Kitchen OS is the service provider for this pilot, a digital solution that addresses the challenges in hospitality and food services with its main focus on kitchen and back-house operations.

This pilot program allocated them **Challenge 6 - Traceability and Cleaning: Keeping Food Safe**. The objective was

to digitise the food inspection and control registers, enhancing food traceability through labelling, creating a system, and training staff to prevent food losses with a monitoring system. The goals defined were to:

- Improve food and safety inspection fulfilment via digitalisation.
- Implement digital food traceability in the kitchen.
- Ensure and monitor that the restaurant staff are using the food safety system and maintaining training records.
- Manage assets more efficiently through technology.
- Reduce food losses.

With this general guideline, both the restaurant and solution provider started working on the implementation of this tool.

Implementing the Tool

The project was divided into several work packages following a logical path that allowed the restaurant management and team to become ready for the implementation and use of the tool. The work packages included:

- Setting up of the digital system and creation of the food safety requirements

- Setting up the hardware and connecting the equipment
- Providing training on managing the system
- Testing the system in the staff's day-to-day operations

The setup of the system involved creating user identification profiles, as well as including the assets available in the restaurant, such as coolers, fridges, etc. This was followed by the creation of requirements like inspections and control checklists to automate the processes and alerts in the system.

The second step involved installing the hardware and connecting it to the food-safe system. Following this step, the tool was able to already gather the data, and the team could begin testing the digital alerts and learn how to use them.

Once the system was in place, more thorough training was necessary to be able to understand the entire process for the staff to log the requirements, check the checklist, update the inventory, and respond to the alerts.

Last but not least, intense testing was conducted to ensure that all the hardware was properly connected to the system for reporting to the central dashboard.

What Did We Learn from This Experience?

- Regulation frameworks regarding food inspection and control might have different requirements in each country. Therefore, it is important to make sure that the solution provider reflects and foresees these local specifications.
- Training and a period of adaptation are key to efficiently implementing this tool. Although the process would become well-organised, it would require time to accommodate the day-to-day operations.
- The tool will improve the tracking of the procedures and will provide alerts when needed; however, good practices and actions from the staff would still be necessary.
- Larger restaurants will need to invest more to be able to cover all aspects of their management. Therefore, greater systems and hardware will be required, as well as better training for the staff to cover all the rotations.

How Was the Experience from the Restaurant's Perspective?

When the pilot ended, a questionnaire was sent to the restaurant staff to assess their experience and learning.

- The pilot experience was rated 10 out of 10.

- *"We digitalise the small things that needed to be done by hand (in the stock and inventory)."*
- They now complete the documents with the help of the digital solution instead of pen and paper.
- They wish to continue using the digital solution, because *"it eliminates a lot of work and stress from the chef's shoulders."*
- The tool *"makes everything work faster and safer."*
- It has inspired them to continue their digitalisation, as they are now aiming to introduce an ordering system to improve their table service operations and management.

5. Solutions Developed During the Project

Hackathon



5.1. Overview of the Solutions Developed During the Project

Innovation and collaborative efforts serve as powerful instruments that enable the exploration, creation and formulation of solutions that are currently non-existent. The research and benchmarking detailed in point three of this guidebook have paved the way for the application of these techniques in designing novel digital solutions tailored for the restaurant industry.

To address contemporary challenges faced by restaurants, RESTwithEU orchestrated a hackathon in Madrid. A hackathon is an event where people come together to innovate, learn, collaborate, and generate ideas and networks. It is an intensive experience where creative solutions are generated for different challenges and that provides professional opportunities for participants. This event drew participants, including industry experts, creative minds, designers and developers, from across Europe, pooling diverse talents to collaboratively devise innovative digital solutions.

Hackathons offer several benefits such as those listed below:

- 1. Fostering innovation:** They provide an environment for generating innovative ideas and developing creative solutions. Teams formed of multidisciplinary profiles with different skills and perspectives encourage out-of-the-box thinking.
- 2. Collaboration and teamwork:** From the beginning to the end of a hackathon, participants work as a team to create the best solution, emphasising collaboration and teamwork. This encourages connections with different individuals and collaborations with other developers, designers and experts from various fields, promoting knowledge exchange and professional networking.
- 3. Intensive learning:** Working with multidisciplinary profiles allows participants to learn from other professionals. Additionally, hackathons provide insights into soft skills such as communication and creative thinking, as well as the knowledge of methodologies such as design thinking and lean startup. These are useful for creating new products, services or business ideas.
- 4. Prototyping:** Teams are required to create a prototype within a tight timeframe, which enhances their ability to create quick and efficient solutions.

The central goal of the RESTwithEU Hackathon was to forge ground-breaking solutions tailored for small and medium-sized enterprises (SMEs) in the food sector, targeting areas overlooked by current solutions while fostering digitalisation, resilience and sustainability. Additionally, the event aimed to establish a collaborative and innovative space, encouraging the generation of solutions to address challenges within the restaurant sector and promote the growth of restaurant SMEs.

Throughout the hackathon, the focus was on achieving the following objectives:

1. Formulating innovative solutions for addressing challenges within the restaurant sector.
2. Establishing a personal network with European stakeholders involved in the project.
3. Fostering a collaborative space and promoting teamwork among individuals with diverse profiles.
4. Developing a prototype within a tight timeframe of two days.
5. Working on and enhancing soft skills throughout the event.

The winners of the hackathon received financial support and assistance in developing their ideas in the coming months, ensuring their proper implementation.

5.1.1 Hackathon Challenges

In contrast to the previously listed industry challenges, new challenges were defined for the hackathon so that participants could design new solutions for unresolved gaps in the market. These challenges were formulated specifically to provide participants with clear and defined objectives to reference throughout the defined process of the hackathon.

- **Challenge 1 - Streamlining operations:** Business intelligence and data analytics solutions can help restaurant SMEs optimise their processes by providing real-time data on inventory levels, customer demand and staff availability, one of the main challenges in the industry. Additionally, data analytics can help restaurants identify bottlenecks in their order fulfilment process and optimise their kitchen workflows to minimise wait times and improve customer satisfaction. Overall, integrating business intelligence and data analytics into their operations can help restaurant SMEs make data-driven decisions, improve operational efficiency and reduce costs. Restaurant SMEs may struggle to manage various aspects of their operations, such as inventory management, staff scheduling and order fulfilment. Developing solutions that streamline these processes can help restaurants run more efficiently and be more competitive.

- **Challenge 2 - Enhancing the customer experience:** In the restaurant sector, enhancing the customer experience has become a critical challenge in the highly competitive market. Customers have come to expect seamless, convenient and personalised experiences when dining out, and restaurants must respond to these changing expectations by implementing solutions that enhance the customer experience. Solutions such as mobile ordering, personalised recommendations and loyalty programmes can help restaurants attract and retain customers, increase revenue and gain a competitive advantage in the market.
- **Challenge 3 - Managing online presence and reputation:** With the rise of online review sites and social media, restaurant SMEs must maintain a strong online presence and reputation. Solutions that help restaurants manage their online reputation, track customer feedback, and engage with customers online can help them build a loyal customer base, increase their online visibility and gain a competitive advantage in the market.
- **Challenge 4 - New solutions in food waste and sustainability:** A new challenge was introduced at the hackathon at a later stage due to the absence of qualifying solutions

in the open call. As this challenge is significant as an industry challenge with implications for both financial and environmental sustainability in the restaurant sector, a new award was incorporated into the hackathon—a special prize for teams innovating in food waste and sustainability solutions. As defined previously, food waste is a major challenge in the restaurant industry—from both environmental and financial perspectives. It is estimated that the average restaurant generates thousands of euros of food waste each year, resulting in significant costs and inefficiencies. The hackathon sought to explore and create a solution for this challenge.

The hackathon, thus, endeavoured to discover novel solutions for these four challenges, organising participating teams to address and innovate upon distinct challenges.

5.1.2 Hackathon Structure and Methodology

The first RESTwithEU Hackathon took place in the third week of June in Madrid. It was a weekend experience where tech enthusiasts, restaurant experts, designers and stakeholders from all over Europe came together to develop new ideas and solutions to build the future of the restaurant sector.

To attain optimal results, the hackathon

was meticulously crafted with a well-defined structure, encompassing five distinct phases:

1. Challenge conceptualisation
2. Brainstorming
3. Idea definition
4. Prototype
5. Preparation of the idea presentation

Moreover, to provide theoretical support for each of these phases, four experts in the field conducted workshops explaining the theoretical framework of each phase:

1. **Challenge conceptualisation workshop:** This workshop explained the importance of empathising with the client (restaurant SMEs) when conceptualising a challenge and the need to determine and understand the real problem.
2. **Product design workshop:** It explained the importance of creating a real value proposition that addresses the main issues of the clients.
3. **Prototype workshop:** It explained prototypes, their purpose and the different types of prototypes with examples to help teams think outside the box and create real prototypes.
4. **Elevator pitch workshop:** This workshop focused on how to sell

the idea. As many participants had a technical background, such as developers, this workshop provided communication and sales skills to present ideas in the best way and attract the audience and the jury.

During the two days, the teams were supported by a facilitator to ensure a smooth session. The facilitator guided them throughout the process, redirected them when necessary and provided feedback to create the best solutions. To reduce stress, increase performance and improve concentration, activities such as yoga and mindfulness were scheduled by the best professionals. Furthermore, a cross-functional leader was present both in-person and online to guide the session and participants, ensuring the best participant experience.

A team of European mentors was available to provide feedback based on real experiences and challenge the team to develop ideas and create innovative and realistic solutions to the challenges based on these ideas.

Lastly, a jury panel with representation from all fields and countries was assembled to evaluate and score the presented ideas and select four winners for the awards.

The hackathon was based on design thinking and lean startup methodologies. Design thinking is an approach to problem-solving that focuses on user

needs to generate creative and innovative solutions. It involves empathy, problem definition, idea generation, prototyping and testing and encourages thinking outside the box, experimentation and constant iteration to develop user-centred solutions. This approach is widely used in fields such as product design, business innovation and complex problem-solving.

On the other hand, lean startup is a business methodology that aims to minimise risk and maximise learning in the process of launching a product or service. It is based on creating a minimum viable product (MVP) to quickly validate business hypotheses and gather user feedback. The methodology focuses on efficiency, agility and delivering value to the customer while avoiding waste of resources on unnecessary features. The focus is on early validation and constant adaptation to achieve business success.

5.1.3 Hackathon Participants

With a relevant turnout, the hackathon garnered more than 150 pre-inscriptions, ultimately bringing together a diverse group of 85 participants from 14 European countries. These individuals, hailing from various corners of Europe, coalesced into 14 multidisciplinary teams, each uniquely positioned to tackle the challenges laid out in the hackathon.

The composition of the teams reflected a well-rounded blend of expertise:

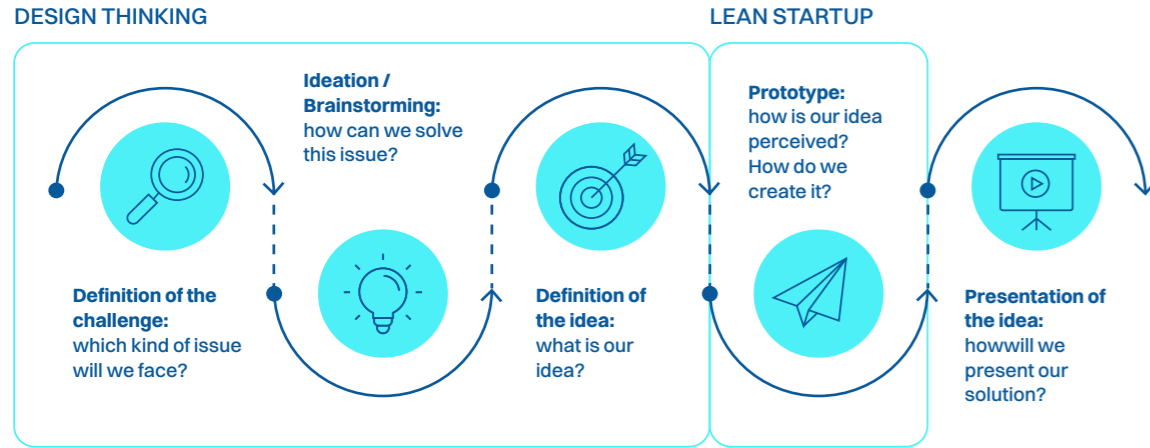
- **32% developers:** Contributing technical prowess and coding proficiency.
- **24% restaurant experts:** Bringing valuable industry insights and first-hand knowledge of restaurant operations.
- **19% designers:** Infusing creative and user-centric design elements into the solutions.
- **25% business professionals:** Providing strategic acumen and a business-focused perspective.

Moreover, a notable 70% of participants opted for the live experience in Madrid, while the remaining 30% actively engaged in the hackathon online, showcasing a dynamic blend of both in-person and virtual collaboration.



5.2. Description of the Solutions and How They Address Specific Challenges in the Restaurant Sector

The hackathon was based on design thinking and lean startup methodologies.



Design thinking is an approach to problem-solving that focuses on user needs to generate creative and innovative solutions. It involves empathy, problem definition, idea generation, prototyping and testing and encourages thinking outside the box, experimentation, and constant iteration to develop user-centred solutions. It is widely used in fields such as product design, business innovation and complex problem-solving.

The Proposal from Team 1: GASTROFREAKS

Challenge

Streamlining operations.

Solution

Innovative data solution for independent restaurants. This solution aims to address a critical problem faced by independent restaurants—ineffective understanding

and utilisation of their data, resulting in lower sales and diminished profits.

Problem to solve

Independent restaurants often struggle to leverage their data efficiently, leading to suboptimal decision-making and financial outcomes.

Value proposition:

The proposed solution involves the creation of a sophisticated software tool designed to analyse, collect and present data in a manner that transforms raw information into actionable insights. By implementing this technology, independent restaurants can enhance their operational efficiency and make informed decisions having a positive impact on sales and overall profitability.

Impact on SMEs

- **Informed decision-making:** Enables

restaurant owners to make better decisions based on comprehensive data analysis.

- **Sales boost:** Allows restaurants to identify trends and patterns to drive targeted efforts, resulting in increased customer engagement and higher sales.
- **Cost reduction:** Restaurants can pinpoint inefficiencies to reduce operational costs and improve overall financial performance.
- **Operational streamlining:** Restaurants will be equipped with the necessary tools to be well-prepared for streamlined operations.

Next steps

- **Find first customers and access data:** Identify and engage with early adopters among independent restaurants, establishing protocols to access and integrate relevant data.
- **Initial data analytics:** Conduct a thorough analysis of acquired data, showcasing the software's capabilities in providing actionable insights.
- **Prove value:** Present findings to potential clients, demonstrating how the software adds tangible value to their operations.

The proposal from Team 2: GUESTIMATE

Challenge

Streamlining operations.

Solution

Enhancing resource allocation and revenue optimisation for small restaurants.

It is a comprehensive solution addressing the critical challenges faced by small restaurants in resource allocation, revenue enhancement and waste reduction.

Problem to solve

The team primarily focused on improving resource allocation, increasing revenue and minimising waste in small restaurants.

Value proposition

The proposed solution involves the development of a precise forecasting system for anticipated demand in the upcoming days, utilising advanced techniques in restaurant sales prediction. This initiative is geared towards empowering small restaurants with the tools necessary to make informed decisions regarding resource management.

Impact on SMEs

- **Cost savings:** Small restaurants can realise significant savings in terms of products, energy, storage and labour.
- **Leveraging demand:** By accurately predicting demand, restaurants can optimise meal preparation during downtimes, stock up on popular items and adjust offerings dynamically based on changes in demand.
- **Eco-friendly practices:** The solution promotes eco-friendly practices by reducing food waste, minimising the carbon footprint and conserving Earth's valuable resources.

Next steps

- **Model preparation using weather and traffic data:** Develop a robust model incorporating weather and traffic data across markets to enhance the accuracy of demand forecasting.
- **Launch Web-based service:** Introduce a Web-based service offering real-time updates and feedback features, providing small restaurants with reliable estimates of expected demand.
- **Push for tiers of service:** Advocate for a tiered service approach, allowing for the organic integration of features tailored to the specific needs of restaurant management.

- **Possibility of integration across industries:** Explore the possibility of extending the solution to SMEs of varying industries and sizes, ensuring its adaptability and scalability.

The proposal from Team 3: LEPSI

Challenge

Streamlining operations.

Solution

Enhancing resource allocation and revenue optimisation for small restaurants.

It is an innovative solution aimed at addressing the time constraints and analytical challenges faced by restaurant owners who actively engage in the day-to-day operations of their businesses.

Problem to solve

Restaurant owners, deeply involved in the operational aspects of their establishments, often lack the time or expertise to comprehensively analyse the available data.

Value proposition

The solution centres around making data universally understandable and user-friendly, ensuring that every restaurant owner, regardless of their background, can leverage data to make impactful decisions for their business.

Impact

The proposed solution aims to reduce the staggering 60% of food waste in the bin, presenting a tangible and immediate benefit to the industry.

Next steps

- **Develop point of sale (POS) integration:** Streamline data accessibility by integrating the solution seamlessly into POS systems, facilitating easy data retrieval for restaurant owners.
- **Integrate new public data:** Enhance the scope and depth of data by incorporating external factors such as events and weather, providing a more comprehensive understanding of the business environment.
- **Improve analytics algorithm:** Refine the analytical algorithms to ensure accuracy, relevance and actionable insights, thereby maximising the utility of the data provided.
- **Improve user experience (UX) and user interface (UI):** Prioritise UX and UI enhancements to create an intuitive and visually appealing platform that facilitates ease of use for all restaurant owners.
- **Integrate real-time data and dashboards:** Implement real-time data integration and dynamic dashboards, empowering restaurant owners with up-to-the-minute insights for informed decision-making.

The proposal from Team 4: GOOSTO

Challenge

Enhancing the customer experience

Solution

Elevating customer experience for restaurant SMEs

It is a comprehensive solution targeting the critical need for enhanced service customisation in small and medium-sized restaurants, recognising its profound impact on overall customer experience.

Problem to solve

Restaurant SMEs face various challenges in improving service customisation, a crucial aspect that significantly influences the overall customer experience.

Value proposition

The proposed solution involves the creation of a responsive Web application employing gamification to capture data, ultimately generating a curated menu. This approach aims to provide insights into and enhance the dining customer journey.

Impact

- **Improved customer experience.**
- **Curated menu:** Saves time for waitstaff and reduces ordering time.

- **Easy implementation:** Compatible with any existing POS system.
- **Retention of customer data:** Facilitates understanding and utilisation of customer insights.
- **Retains best reviews:** Captures positive reviews that are often overlooked, contributing to a positive brand image.
- **Easy onboarding:** Swift and efficient onboarding for seamless integration into existing restaurant operations.
- **Enhanced customer loyalty:** Better net promoter score and improved connection with customers.

Next steps

6-Month plan:

- **Design and develop the MVP:** Create an MVP to showcase the core functionalities and value proposition.
- **Obtain the first 10 pilot tests:** Engage with initial pilot tests to gather user feedback and refine the solution.

1-Year plan:

- **Reach 30 customer milestone:** Expand the solution to reach 30 customers, emphasising continued refinement based on user feedback.

- **Expand to the Italian market:** Extend the reach to the Italian market, adapting the solution to regional preferences.
- **Include AI assistant:** Integrate AI to enhance user interaction and customisation.
- **Garner investment to develop the idea.**

2-Year plan:

- **Reach the first 100 customers:** Scale the solution to reach a broader customer base, emphasising continuous improvement.
- **Expand to the German market:** Further expansion into the German market, adapting the solution for cultural nuances.
- **Increase the team size:** Strengthen the team to support ongoing development, customer support, and market expansion.

The proposal from Team 5: CUSTOMEALS

Challenge

Enhancing the customer experience.

Solution

Empowering local restaurants with customer-centric POS innovation.

It is a solution addressing the challenge of local restaurants being slow to adapt to market changes, through the development of a customer-centric POS system.

Problem to solve

Local restaurants often face challenges in adapting to rapidly changing market dynamics.

Value proposition

The proposed solution involves the creation of a customer-centric POS system designed to facilitate easy customisation of meals according to each customer's preference.

Impact

- **Cost-based customised meal sales:**
 - Strategic upselling and cross-selling: Optimise revenue through personalised offerings and strategic upselling.
- **Minimisation of customer interaction:**
 - Reduced staff requirements: Decrease staffing needs by minimising direct customer interaction, leading to cost savings.
- **Error-free and ingredient-appropriate plates:**
 - Minimised food waste: Ensure

error-free and ingredient-appropriate plates, reducing food waste and enhancing sustainability.

- Customer comfort: Allow customers to feel at ease leaving any uneaten food, fostering a positive dining experience.

Next Steps

MVP Phase:

- **Development:** Create and refine the MVP of the customer-centric POS system.
- **Testing in a real restaurant:** Implement the MVP in a real restaurant setting to gather practical insights and user feedback.

Persevere/Pivot phase:

- **Discover new insights:** Analyse feedback from the MVP phase to uncover new insights and identify areas for improvement.
- **Bug fixes and adjustments:** Address any bugs or issues identified during the testing phase, making necessary adjustments to enhance performance.

Growth phase:

- **Enhancing scalability:** Focus on enhancing the scalability of the system to accommodate a growing user base.

- **Raising money:** Seek additional funding to support the system's growth and expansion into new markets.

The proposal from Team 6: LOCALBITES

Challenge

Enhancing the customer experience.

Solution

Empowering small restaurant owners with AI-driven customer management.

This is a solution aimed at alleviating the challenges faced by small restaurant owners, who often grapple with limited time, resources and expertise in the realm of customer attraction and retention.

Problem to solve

Small restaurant owners encounter difficulties due to constraints in time, resources and knowledge, hindering their ability to effectively attract and retain customers.

Value proposition

The proposed solution involves the development of an AI-powered platform, offering user-friendly and low-effort tools specifically designed to enhance customer attraction and retention for local SME restaurants.

Impact

The anticipated impact of the solution extends to approximately 1,700,000 SMEs in the food sector restaurants across the EU.

Next steps

- **Launch website:** Establish an online presence to communicate the vision and objectives of the AI-powered platform.
- **Develop the MVP:** Create the MVP to showcase the core functionalities and value proposition.
- **Pilot with three restaurants:** Engage in a pilot phase with three selected restaurants to test the platform in real-world scenarios and gather valuable feedback.
- **Build the platform:** Based on insights gained during the pilot phase, proceed with the development of the comprehensive AI-powered platform.
- **Define go-to-market strategy:** Strategically plan and articulate a go-to-market strategy, outlining the steps for the platform's introduction and widespread adoption.

Proposal from Team 7: FRESH LEMONS

Challenge

Managing digital presence and digital tools.

Solution

Revolutionising restaurant reputation management.

It is a comprehensive solution addressing the critical issue faced by restaurants, where a single negative review can significantly impact customer retention.

Problem to solve

Restaurants experience substantial customer loss due to the negative impact of online reviews, with an average of 30 customers lost per negative review.

Value proposition

The proposed solution involves condensing the intricacies of restaurant consulting services into a concise five-minute daily task list. This real-time professional advice service is designed to be both effective and cost-efficient.

Impact

The anticipated impact of the solution is rooted in the statistics surrounding negative reviews:

- 22% of customers refrain from dining after reading one negative review.
- After three negative reviews, this percentage increases to 59%.
- On average, a single negative review results in the loss of approximately 30 customers.

Next steps

- **Secure funding:** Secure financial support to facilitate the development and implementation of the solution.
- **Conduct market research and analyse competitors:** Conduct thorough market research and competitor analysis to inform strategic decisions and enhance the solution's market positioning.
- **Create wireframes and design MVP:** Develop wireframes and design an MVP to visualise the solution's structure and functionality.
- **Develop backend infrastructure and server-side logic:** Establish a robust backend infrastructure and server-side logic to ensure efficient data processing and management.
- **Implement frontend development with user-friendly UI/UX:** Execute frontend development, focusing on a user-friendly UI and UX to enhance accessibility and engagement.
- **Integrate app functionalities:** Integrate essential app functionalities such as user registration and social media integration to broaden accessibility and user engagement.

The proposal from Team 8: YUMSCORE

Challenge

Managing digital presence and digital tools.

Solution

Revolutionising authentic reviews with YumScore.

It is an innovative solution addressing the prevalent issue of fake online reviews, where 40% of reviews lack authenticity.

Problem to solve

The challenge at hand is the prevalence of fake online reviews, constituting 40% of the total reviews available.

Value proposition

The proposed solution involves the creation of a digital tool, YumScore, specifically designed to gather exclusively live and interactive reviews, ensuring the authenticity and reliability of the feedback.

Impact

The anticipated impact of YumScore is multifaceted, contributing to more business, increased customer reach, enhanced customer retention, effective marketing strategies, compatibility with various POS software, accurate data for operational improvements,

and an overall positive influence on the image of the restaurant sector. End customers will be delighted to discover authentic recommendations for the right restaurants.

Next steps

- **Landing page:** Establish an informative landing page to introduce YumScore, outlining its features and benefits.
- **Waiting list sign-up:** Encourage interested parties to sign up for the waiting list, generating anticipation and gauging initial interest.
- **MVP development:** Develop the MVP of YumScore, showcasing the core functionalities and demonstrating its potential.
- **Pitching to investors:** Present the concept and MVP to potential investors, seeking the necessary funding to further develop and launch YumScore.

The proposal from Team 9: CATER

Challenge

Managing digital presence and digital tools.

Solution

Empowering SMEs through open banking data.

This is a groundbreaking solution aimed at addressing the challenge of acquiring costly and difficult-to-obtain data, particularly for SMEs.

Problem to solve

The identified problem revolves around the difficulty and expense associated with obtaining valuable data.

Value proposition

The proposed solution centres around harnessing the EU open banking regulation to provide SMEs with opportunities to gain a competitive edge through consumer data.

Impact

The anticipated impact of this platform is significant:

- **Opportunities for competitive advantage:** SMEs will have the chance to leverage competitive advantage from customer data.
- **Equal capabilities for SMEs:** This initiative ensures that SME restaurants can enjoy the same data utilisation capabilities as multinational corporations.
- **Rewarded consumers and enhanced loyalty:** Consumers will be incentivised to share their data, allowing restaurants to optimise and promote consumer loyalty through data-driven strategies.

Next steps

- **Basic APP and API integration with one bank:** Establish the groundwork by developing a basic application and integrating APIs with one banking institution.
- **Create the APP and integrate APIs:** Expand on the initial development, creating a comprehensive application and integrating APIs from multiple banking sources.
- **Conduct EU-wide marketing campaign:** Launch an extensive marketing campaign across the EU, targeting SMEs and promoting the benefits of leveraging open banking data.

The proposal from Team 10: WASTE BUSTERS

Challenge

Food waste and sustainability.

Solution

Revolutionising ingredient management for SME restaurants.

It is an innovative solution addressing the challenge of food waste during the reception and processing of ingredients, a common issue stemming from inefficient usage.

Problem to solve

The identified problem revolves around food waste occurring during the reception and processing of ingredients due to inefficient usage.

Value proposition

The proposed solution involves the implementation of AI-optimised stock monitoring and menu planning for SME restaurants. This tool aims to streamline stock management and enhance ingredient utilisation efficiency.

Impact

The anticipated impact of the solution is substantial:

- **Increase in overall profitability:** An increase in overall menu profitability of up to 10%.
- **Cost reduction:** Cuts costs by 2%–6%, including a reduction in garbage-related expenses (country-dependent).
- **Stock monitoring:** Helps monitor stock efficiently, including freshness and expiry dates.
- **Supplier quality tracking:** Helps keep track of supplier quality for better decision-making.
- **Time savings:** Saves time with automated ordering suggestions.

- **Optimal use of ingredients:** Ensures the optimal utilisation of all parts of raw ingredients, including imperfect items that might otherwise be wasted.

Next steps:

- **User research with restaurants:** Engage in comprehensive user research with restaurant owners to test hypotheses and identify pain points in the field.
- **Feasibility of functionalities:** Assess the feasibility of implementing the proposed functionalities based on user feedback and technical considerations.
- **Beta MVP development:** Develop a beta MVP incorporating the key features outlined in the proposal.
- **Pilot launch of beta MVP:** Launch the beta MVP in a pilot phase to gather real-world feedback and evaluate its performance in a practical setting.
- **User testing:** Engage in user testing to further refine the solution based on user experiences and feedback.

The proposal from Team 11: The Mitigators

Challenge

Food waste and sustainability

Solution

It is an innovative solution addressing the challenge of seasonal product waste in the food industry.

Problem to solve

The identified issue revolves around the wastage of seasonal products, leading to environmental concerns and market losses.

Value proposition

The proposed solution introduces a bill-based approach to reducing food waste through seasonal menu recommendations, providing a strategic and data-driven approach to address the problem.

Impact

The anticipated impact of the solution is multi-faceted:

- **Reduction of greenhouse emissions:** Implementing seasonal menu recommendations will contribute to a reduction in greenhouse gas emissions associated with food waste.
- **Reduce seasonal product wastage:** Minimise the wastage of seasonal products by aligning menu recommendations with available seasonal ingredients.
- **Reduced market time losses:** Efficient

management of seasonal products will lead to reduced losses associated with market time.

- **Differentiation and competitive advantage:** Establish a unique selling proposition for restaurants, differentiating them from competitors and providing a competitive advantage.

Next steps:

- **Integrate with B2B food providers like Amazon Fresh:** Forge partnerships and integrate the solution with B2B food providers, enhancing accessibility and market reach.
- **Take advantage of local marketplaces:** Leverage local marketplaces to extend the solution's reach, fostering collaboration with regional suppliers and restaurants.
- **Work on certifications:** Pursue certifications to validate the effectiveness and sustainability of the bill-based approach, building trust with stakeholders.
- **Work on price recommendation:** Develop and implement a system for price recommendations aligned with seasonal menu offerings and market conditions.
- **Figure out CRM and invoice management:** Develop and integrate

customer relationship management (CRM) and invoice management features to enhance overall business operations.

Proposal from Team 12: Chef.ai

Challenge

Food waste and sustainability

Solution

It is an innovative solution aimed at addressing the challenges faced by chefs in reaching reasonable profit margins.

Problem to solve

The identified problem revolves around the difficulties chefs face in achieving reasonable profit margins.

Value proposition

The proposed solution involves the creation of an easy-to-use Web application tailored for chefs, empowering them to craft zero-waste menus seamlessly.

Impact

The anticipated impact of the solution encompasses several dimensions:

- **Reduces food waste by reuse:** The Web application facilitates the reduction of food waste through innovative reuse strategies.
- **Saves money:** By optimising ingredient usage and minimising waste, chefs can save costs significantly.
- **Optimises workload:** The application streamlines menu planning and ingredient utilisation, optimising the overall workload for chefs.
- **Happy customers:** Creative and sustainable menu offerings allow surprising and even rewarding customers, making them happy.

Next steps:

- **Building the application using NEXT.js, Node & MongoDB:** Develop the Web application using the NEXT.js framework, Node, and MongoDB for a robust and scalable platform.
- **Possibilities of automatic menu scanning:** Explore the potential for incorporating automatic menu scanning features, enhancing efficiency for chefs.
- **Investigation of stock integrations:** Investigate and integrate functionalities that allow seamless synchronisation with stock management systems, ensuring real-time ingredient availability.
- **First tests:** Conduct initial testing of the application and gather feedback from chefs to refine and enhance user experience and functionality.

The proposal from Team 13: Waste Watchers

Challenge

Food waste and sustainability.

Solution

It is a pioneering solution aimed at addressing the pressing issue of food waste in the restaurant sector, recognising its adverse impact on energy, water, human labour hours and valuable dietary resources.

Problem to solve

The identified problem revolves around the extensive food waste in the restaurant sector, leading to resource depletion, environmental pressure and additional costs for disposal.

Value proposition

The proposed solution entails the development of a software as a service (SaaS)/market as a service (MaaS) platform that empowers SMEs to optimise stock management. This platform also aids customers in making informed decisions, promoting better stock management, enhancing consumer comprehension and optimising operational costs.

Impact

The anticipated impact of the solution is substantial:

- **Less purchasing of food:** The platform encourages less purchasing of food, leading to cost savings and efficient resource utilisation.
- **Food sold, not thrown out:** By utilising food instead of discarding it, the financial loss associated with waste transforms into profit.
- **Less food waste reduced environmental pressure:** The overall reduction in food waste contributes to less environmental pressure and a more sustainable approach.

Next steps

- **Standardise storage solutions:** Establish standardised storage solutions for various food storage purposes, laying the foundation for efficient stock management.
- **Create a SaaS/MaaS solution:** Develop a comprehensive SaaS/MaaS solution, integrating innovative features for SMEs.
- **Engage restaurants in product usage:** Actively involve restaurants in the product, seeking their feedback to optimise the platform and minimise the effort required by restaurants.
- **Optimise to reduce effort:** Continuously refine and optimise the platform based on restaurants' feedback to reduce the effort required by establishments.

- **Restaurants begin using the system:**

Encourage widespread adoption of the system among restaurants, leading to cost savings, customer acquisition and a significant reduction in food waste.

The winners were **WASTEBUSTERS** (Special Prize), **CUSTOMEAL** (First Prize), **GOOSTO** (Second Prize), and **GASTROFREAKS** (Third Prize).

They had been contacted and were preparing for the pilot testing phase, which aimed to validate their prototypes in real-life scenarios with European restaurant SMEs. The support program encompassed various stages, including preparation and kick-off, prototype development, and pilot testing. Key milestones included the announcement of winners, initial project plan submissions, virtual kickoff meetings, and iterative prototype development. The timeline spanned over several months, allowing winners to refine their prototypes based on feedback from restaurant SMEs and project stakeholders.

Throughout the process, winners received guidance from the RESTwithEU team and a dedicated facilitator to ensure the success of the pilot testing phase. The collaboration between winners, the project team, and restaurant SMEs aimed to validate prototypes and address actual challenges faced by the sector.

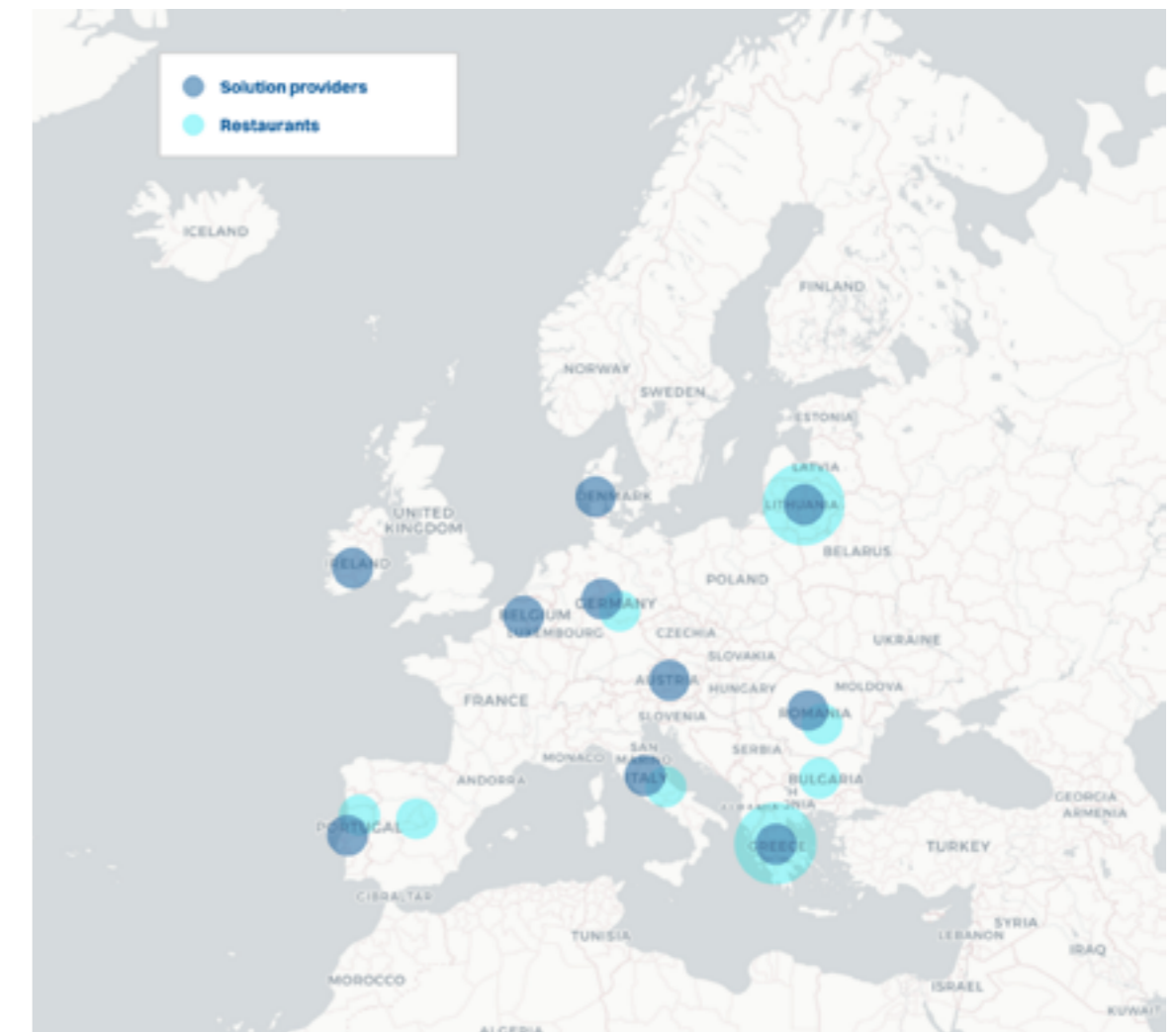


6. Overview of the Solutions Piloted During the Project

Throughout this project, ten existing solutions underwent testing across various restaurants in the European Union. This section elucidates the pivotal considerations and insights gained from each of these solutions.

A compelling rationale for the digitalisation of restaurants lies in the provision of precise insights into the practical implementation of these solutions within real restaurant settings. In this project, we have undertaken an open-call initiative to find and pilot existing market solutions tailored to address ten distinct challenges identified in the restaurant industry research. These pilot programs were conducted in a diverse

array of ten European Union restaurants, spanning multiple countries, varying in size, and encompassing different restaurant typologies. To ensure a holistic understanding, these restaurants represent a wide spectrum of dining establishments found across the EU, ranging from standalone, rural single-location restaurants to multi-location restaurant chains situated in bustling metropolitan areas.



The pilot initiatives were conducted in restaurants that had limited exposure to new digital solutions, addressing each of the identified industry challenges. These pilot projects aimed to thoroughly evaluate the restaurant experience when implementing these solutions. They sought to identify the necessary steps, resource requirements, and potential risks, with the overarching goal of deriving valuable insights that could be shared with other restaurants. The culmination of this knowledge is delivered in the various pathways meticulously defined in this guidebook.

The principal learnings from these pilot initiatives have paved the way for restaurant owners to embark on their recommended paths to digitalisation with a profound understanding of the terrain they are about to navigate. However, a successful digital transformation journey demands careful consideration of various factors and potential challenges. In this guidebook, we explore critical considerations and best practices to help restaurant owners and stakeholders navigate the digital landscape effectively.

I. Strategic Planning and Digitalisation Preparedness:

- **Assessing current restaurant situation:**
 - Conduct an assessment of your restaurant's current situation and operational challenges before

embarking on any digitalisation journey. This assessment may help you understand the specific areas in which digitalisation can benefit your restaurant and decide the optimal digitalisation process. It is paramount to have a clear picture of your current situation to determine the right digital solutions for your restaurant.

- Start by examining your restaurant's current operations, including your workflows, processes, and systems. Identify any bottlenecks, inefficiencies, or areas that could benefit from automation or improved technology. Observe both FoH and BoH operations to acquire a comprehensive understanding of your restaurant's operations. Consider the challenges at hand, such as high staff turnover, long wait times, inaccurate order taking, inventory management issues, or difficulty in managing customer feedback. These challenges can provide insights into the areas where digitalisation can make the most impact.

- **Define your objectives:** Start by clearly defining your objectives for digitalising your business. Whether it involves improving efficiency, customer experience, increasing sales, or all of them simultaneously,

being sure of what you want to achieve will help you narrow down your options.

- **Identify your pain points:** Identify the areas in your restaurant where you are currently facing challenges. It could be slow service, inventory management, or the lack of effective communication between staff members. Knowing your pain points will help you determine the specific solutions you need.

II. Choosing the Right Solution(s):

Choose the solution according to the unique settings and needs of your restaurant. Take into account the following learnings and recommendations:

- **Research different solutions:**
 - Conduct research on the various digital solutions available in the market, depending on the conclusions of the previous assessment of the business. There are several options to choose from, including POS systems, online ordering platforms, reservation management systems, inventory management software, and CRM tools. Select the most suitable solutions for your restaurant.
 - Seek recommendations

and references. Reach out to other restaurant owners or industry professionals for recommendations and references. Ask about their experiences with various solutions and any challenges they faced during implementation. This will provide you with first-hand insights and help you make an informed decision.

- **Technical requirements:**
 - Recognise and prepare for the hardware and infrastructure required to implement digital solutions effectively.
 - Every solution may necessitate basic infrastructure for operation, such as an internet connection, a computer for solution management, screens, tablets, and mobile phones.
- **Budget and financial planning:**
 - Recognise that the availability of funds plays a pivotal role in covering the initial setup and hardware investment required to get the digital solution up and running.
 - Assess financial requirements and consider that digital transformation may entail expenses related to both

hardware and software components, including training and maintenance expenses.

- **Plug-and-Play solutions vs. custom solutions:**

- In certain scenarios, plug-and-play solutions, which are essentially ready-to-use with minimal onboarding, may suffice. However, it is essential to note that even these solutions may require a period of adaptation to accommodate specific restaurant content and needs. Conversely, there are instances where a custom application becomes imperative to address unique requirements effectively. The choice between the two depends on the individual circumstances and objectives of the restaurant.
- In both cases, tailoring solutions to match your restaurant's specific settings and needs is essential.

- **Consider solutions with multiple capabilities:**

- Recognise the value in comprehensive solutions that serve multiple purposes, as opposed to specific-process solutions.
- The worth of such solutions is also contingent upon the type

of restaurant and the nature of its offerings. Incorporating an all-in-one back-office solution or an enterprise resource planning (ERP) system into a restaurant significantly streamlines the digitalisation journey. This is achieved by simplifying processes, centralising data management, providing advanced reporting and analytics capabilities, and enabling seamless integration with digital channels.

- Solutions designed for specific processes can be advantageous in certain situations, as they are tailored to address particular challenges or needs within a restaurant's operations, offering specialised functionalities to optimise those specific areas. This approach can be especially beneficial when a restaurant wishes to target specific pain points or enhance specific aspects of its business.
- Nonetheless, it is essential to note that while these specialised solutions excel in their designated areas, they may lack the versatility of comprehensive systems. This is because they often require integration with other tools and platforms to create a holistic digital ecosystem.

- Workflow optimisation is the heartbeat of a well-functioning restaurant, as each aspect of restaurant operations, from order management and kitchen processes to customer service and reservations, should be intricately connected. Such interconnectedness not only streamlines operations but also serves as a robust error-reduction mechanism. Achieving this seamless scenario is possible with both systems, provided that the advantages and disadvantages of each are carefully considered and weighed.
- In all cases, consider the user-friendliness of the solutions you are considering. Look for intuitive interfaces and easy navigation that will require minimal training for your staff. Demo versions or free trials can provide you with an insight into how user-friendly a solution is.

- **Third-party integrations and solution compatibility:**

- Make sure the solutions you choose have the ability to integrate with your existing systems. For example, if you already have a POS system, make sure that the new software can be seamlessly integrated with this

system. This would help you avoid any operational disruptions and ensure a smooth transition.

- When integration between these solutions is not feasible, it can lead to a situation where processes are duplicated, resulting in unnecessary complexity and inefficiencies.
- For a successful integration of digital solutions, consider their compatibility, data synchronisation, and integration capabilities.
- Choose solutions that can grow and adapt to your business. As your restaurant expands, you may need to add further functionalities or modify existing processes. It is essential to select solutions that can accommodate these changes without requiring a complete overhaul.

- **Identify risks and barriers:**

- Consider the importance of ensuring that the solution is adapted to your language and that the solution provider can communicate with you seamlessly and without any language-related barriers.
- At the country level, it is imperative to consider the need

for local adaptation in certain solutions to align with local legislation and procedures.

III. Onboarding, Adoption and Organisational Mindset:

- **Digitalisation onboarding, changing your processes with a new digital solution:**
 - Transitioning from a manual process to a digital solution can be a transformative game changer for the restaurant, requiring staff training, onboarding, and ongoing support.
 - The introduction of new digital solutions signifies more than merely replicating existing procedures with a digital interface. It is crucial to recognise that the implementation of digital solutions often triggers changes within the restaurant's operations and workflows.
 - The staff will require not just training and skill development but also a transitional phase to adapt to new operational methods. This includes considering the adoption process and the inevitable learning curve associated with implementing new digital solutions in a restaurant setting. During this transitional period, both staff

and management require time to acquaint themselves with the new technologies and workflows. Hence, it is important to proactively anticipate this learning curve and offer the essential support and training required for a seamless transition.

- This also highlights the significance of identifying and engaging employees who embrace change and demonstrate robust digital proficiency while introducing digital solutions in a restaurant environment. Selecting the right employees for this transition could make all the difference in ensuring the successful and smooth adoption of digital solutions.
- During the onboarding process, it becomes essential to input important restaurant data into the solution. This data encompasses a range of critical information owned by the restaurant, including multimedia content such as photos, menu details, table distribution arrangements, and contact information, among others. This transfer of data, often referred to as data migration, forms a pivotal aspect of the onboarding process, ensuring that the digital solution is fully equipped to serve the restaurant's needs.

- **Time and Effort:**
 - The time and effort required for implementation should be acknowledged and carefully considered, as the process demands not only dedication but also meticulous planning, testing, and resource allocation. Therefore, it is paramount to be prepared for a commitment that extends beyond the initial stages, as successful implementation often hinges on continuous diligence and adaptation.
- **Resistance to change:**
 - Recognise and proactively address resistance to adopting new digital tools among employees and management.
 - Effective communication with your staff is crucial when implementing changes. It is important to ensure transparency regarding the nature of the changes, their timing, and the reasons behind them. This not only fosters a sense of inclusion and trust among your team but also prepares them for the adjustments ahead. Open lines of communication ensure that everyone is on the same page, minimising resistance and facilitating a smoother transition.
- **Mindset and Return of Investment (ROI) understanding:**
 - It is entirely common and understandable not to immediately recognise the profound impact that digital solutions can have on a business. In the initial stages, a restaurant must commit to making investments in terms of budget, resources, and employee training, which naturally leads to a transformation in its operational procedures. It is crucial to acknowledge that this transformation does not happen overnight. While there may be apprehension regarding such investments, restaurant managers must understand that these changes are, without a doubt, an investment that will yield substantial returns in the long run.
 - Hence, it is conceivable that resistance might emerge when considering these investments. However, based on the recommendations of experts and the lessons learned from the project's pilot experiences, we ardently advocate for the return on such investments. They have the potential to diminish process costs, streamline resource utilisation, and ultimately usher in new avenues for profit generation.

IV. Implementation and Ongoing Considerations

- **Performance measurement and process evolution:**

- Measure the performance of implemented solutions, acknowledging the fact that conclusive results may take time to manifest.
- Understand that digital solutions may necessitate changes in restaurant processes and workflows.
- During the implementation of new digital solutions, it is imperative to remain prepared and flexible as iterations and refinements may be necessary to achieve optimal results.
- To prevent technical glitches, make sure to conduct thorough testing and quality assurance before launching any digital solution. Effective communication with the solution provider is equally vital for promptly resolving common technical bugs that may arise. Technical issues, including software bugs, system crashes, or compatibility problems, have the potential to disrupt operations and cause frustration.

- **Data security and privacy:**

- Digital solutions necessitate the collection and storage of sensitive data, encompassing customer information and financial records. Therefore, it is crucial to ensure that restaurants maintain awareness of rigorous security measures and stringent compliance with data protection regulations.
- Solution providers themselves must uphold strict adherence to data protection regulations, confirming the security of all confidential information.
- In certain instances, it becomes essential to assess the readiness of diners, suppliers, and other stakeholders to securely exchange data electronically.

- **Connecting processes for increased efficiency:**

- Integrating processes within a restaurant is pivotal for ensuring operational smoothness and enhancing efficiency. Through the creation of robust connections among pivotal sectors, such as order management, inventory control, kitchen operations, and customer service, restaurants can achieve a range of benefits. These encompass performance optimisation, error reduction leading to accurate orders,

effective inventory management reducing food waste, improved customer experiences, and an enhanced digital presence. The result is easier reservations, more seamless and direct communication, and a superior overall dining experience.

- These essential connections can be effortlessly established and enhanced through the implementation of digital solutions.



7. Pathways for Implementing Digital Tools in the Restaurant Sector

Deploying digital tools within the restaurant setting has the potential to amplify efficiency, elevate the dinner experience, and augment business profitability. This section offers insights into their effective implementation in restaurant operations.



7.1. Understanding Pathways: A Guide to Interpretation

Throughout the preceding sections of this guidebook, we have explained the analysis of the restaurant sector, scrutinising its digitalisation, articulating challenges that restaurants resonate with and aspire to address, and delineating best practices within the industry. The synthesis of these elements culminates in the RESTwithEU pathways, representing the amalgamation of insights and outcomes derived from our exploration.

Digitalisation pathways refer to the various routes that restaurants can take to incorporate digital technologies and processes into their daily operations and overall functioning. These pathways aim to offer support, assistance, and recommendations to help you initiate and navigate digitalisation processes effectively.



Crafted in direct response to the ten challenges discerned within the sector, these pathways meticulously showcase the primary best practices associated with each challenge – specifically those with the potential for profound impact. Additionally, each pathway includes recommendations, highlighting key considerations that are essential before embarking on their implementation. Step-by-step explanations have been provided to empower restaurants with the knowledge and guidance required to adeptly incorporate these practices into their operations.

The pathways, inherently dynamic, incorporate ongoing recommendations within each, guiding the seamless progression of new digital processes. In essence, these pathways are interconnected, enabling a fluid transition from one to another. Initiating any specific pathway allows for a natural continuation into others, ultimately fostering a comprehensive digital transformation for your restaurant.

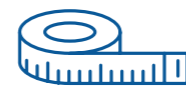
Defined with the intent of aiding less-digitised businesses, these pathways provide a fundamental and straightforward overview, with the overarching goal of propelling restaurants within the European Union towards higher rungs on the digitalisation ladder. For those establishments that have already integrated solutions, we urge you to glean fresh insights from the pathways, delve into novel technologies, and envision

elevated levels of digitisation for your business.

As reiterated throughout this guidebook, the diversity among restaurants makes crafting universally adaptable recommendations an exceptionally intricate task. Recognising the complexity of this endeavour, the given recommendations are deliberately broad and geared towards establishments with lower levels of digitisation. Therefore, it is recommended that you approach the insights presented in the pathways with a discerning eye, identifying elements that align with your needs while disregarding those that you have already addressed.

Embarking on the digitisation journey necessitates a customised approach, as there is no one-size-fits-all solution. Begin by prioritising areas that pose significant challenges in your daily operations or align closely with your overarching business objectives. The subsequent pathways will unfold organically, revealing new processes that seamlessly connect. In the restaurant industry, everything is intertwined - from reservations leading to table management, to the undeniable link between reservations and your online presence. Embrace the interconnected nature of digitisation, allowing your unique business needs to guide the implementation of new processes.

The Digital Pathway tool is an initiative developed during the RESTwithEU Pilot Project, designed to explore and identify the most relevant best practices to assist and steer you on your journey towards restaurant digitalisation. Tailored to aid small- and medium-sized restaurant businesses, this tool pinpoints and prioritises digitalisation efforts. It guides users through a brief and user-friendly form, exploring their objectives and digital landscape, followed by providing actionable steps to achieve the goals.



7.2. Digitalisation Measurement and Assessment, Before Embarking into Digitalisation

A key insight derived from the research and echoed by the guidance of collaborating experts underscores the imperative for restaurant managers to acquire a comprehensive understanding of their business from each conceivable perspective. This profound awareness stands as a potent antidote to one of the foremost culprits behind business failures. Conversely, it transforms into a formidable competitive advantage, helping businesses to thrive and maintain long-term sustainability.

Hence, before embarking on the digitalisation journey, it is important for restaurant managers to thoroughly scrutinise their operational landscape - which we may refer to as a “restaurant diagnosis”. It allows managers to identify areas of strength and weakness within their operations, enabling them to make informed decisions when implementing digital solutions. This self-assessment involves the examination of the current technology used by the restaurant and its compatibility with potential new systems.

It also delves into the intricacies of day-to-day operational procedures and assesses the skills and capabilities of the staff. However, it is also concerned with the customers’ requests or preferences, scalability options for these solutions, anticipated returns on investment, and competitive positioning relative to other players in the industry. Moreover, this encompasses the assessment of critical restaurant metrics that offer straightforward insights into elements such as customer satisfaction, order processing efficiency, inventory turnover, and overall financial performance.

All of these aspects should be carefully incorporated into an implementation plan, which acts as a guiding roadmap, akin to a navigational roadmap to guide restaurants towards a successful transition into the digital era. Understanding your current status is a crucial initial step before embarking on the various pathways.



7.3. Introducing RESTwithEU Digital Pathways

In the course of this guidebook, we have emphasised that our project has identified and articulated ten pivotal challenges influencing the restaurant sector. We have strategically restructured the most impactful strategies, framing them as challenges unique to the restaurant industry. The intention behind this approach is to render these challenges more relatable for restaurants. By presenting them as challenges, we aim to inspire and encourage restaurants to delve into and adopt the associated best practices, fostering a sense of motivation and relevance for the implementation of effective strategies in their businesses.

Each challenge is accompanied by a pathway, which intricately outlines the most pertinent and impactful best practices. The best practices are organised in a manner that ensures a coherent combination, seamlessly integrating into the established flow of the restaurant, as demonstrated earlier. This allows you, as a restaurant, to acquire insights into the implementation process and understand key considerations to bear in mind throughout the journey.

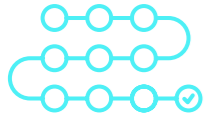
Consequently, each of the ten industry challenges would be intricately associated with its respective pathway:

- **Pathway 1 – Digital presence: Connecting with diners:** In today's digital age, a strong online presence is essential for restaurants to stand out and attract customers. Don't miss out on the opportunity to showcase your culinary delights and unique offerings through the Internet.
- **Pathway 2 – Facilitating booking: Easy reservation management:** Elevate customer satisfaction by providing a seamless solution for securing their desired dining times. Optimise your restaurant's efficiency with a user-friendly reservation management platform.
- **Pathway 3 – Intelligent warehouses: Towards optimised food and stock tracking:** Take control of your inventory to ensure a more efficient restaurant. Elevate efficiency through meticulous tracking, acquire insights into optimal restocking timings, and minimise food waste. Implementing this strategic approach will significantly reduce financial losses, fostering a more profitable and sustainable business model.
- **Pathway 4 – Improving table service: Faster and better processes:** Enhance the dining experience by reducing waiting times, minimising

errors, streamlining processes and equipping your staff with the tools and resources to craft a distinctive offering. Enable orders to reach the kitchen seamlessly, and empower customers to make digital payments directly.

- **Pathway 5 – Business insights: Gathering and using data:** Understand your business situation by learning everything about your restaurant's operations and customers' preferences. Data is the key to making better decisions and responding effectively to changes and challenges.
- **Pathway 6 – Traceability and cleaning: Keeping food safe:** Prioritise the critical aspects of sanitation, hygiene, and food traceability in your restaurant, as they directly impact the well-being of your diners. Implement tools that enhance your protocols to ensure the safety and integrity of your food.
- **Pathway 7 – Digital restaurant tools: Implementing technological infrastructure:** Leveraging technology is one of the quickest ways to enhance a restaurant's operations. Integrating computers, tablets, Wi-Fi, and other tools allows for implementing innovative digital solutions, streamlining and automating previously difficult processes. Invest in these tools to
- **Pathway 8 – Delivery, takeaway and others: New business models and revenue channels:** Adapting to shifts in customer behaviour requires restaurants to align with a new reality that is suitable for their business model. While delivery and takeout remain primary avenues, it is imperative to encourage creativity in identifying innovative revenue channels that complement your business.
- **Pathway 9 – Maximising employee potential: Managing and motivating restaurant employees:** Employees play a vital role in delivering outstanding customer service for a restaurant. To improve staff organisation, consider implementing streamlined communication channels, optimising work processes and scheduling, and fostering a collaborative work environment.
- **Pathway 10 – Mitigating food waste: A new approach to sustainability and cost savings:** Explore strategies to minimise food waste in your restaurant, unlock creative ways to repurpose leftovers, and ensure that each penny is utilised wisely, thereby sparing your establishment from unnecessary expenses.

witness tangible results from day one.



7.4. Step-by-Step Guidance of the Piloted Studies

Leveraging insights gained from extensive research and the practical application of the ten industry challenges through pilot programs (evaluating existing market solutions across 10 diverse restaurants in the European Union, encompassing various sizes, locations, and typologies), the project culminates in identifying crucial considerations for restaurants embarking on the digitisation of their business processes. The project further outlines the sequential steps for implementing each of the best practices derived from this comprehensive study.

7.4.1 Pathway 1 – Digital Presence: Connecting with Diners

In today's digital age, maintaining a strong online brand presence is vital to the success of any business, including restaurants. Having a robust digital presence enables restaurants to connect with a wider audience, engage customers, and build a loyal following. It further serves as a virtual storefront that showcases your unique offerings, ambiance, and dining experience. A

well-crafted online brand presence, encompassing a visually appealing website, active social media presence, and engaging content, not only attracts customers but also helps establish credibility and trust. It allows you to communicate your brand story, share updates and promotions, and engage with your audience in real-time. In an increasingly competitive market, a strong digital presence sets you apart, boosts brand visibility, and creates opportunities for growth.

Get ready to embark on a digital journey and harness the power of online brand presence to leave a lasting impression on your target audience. Let's explore the world of digital possibilities and elevate your restaurant's presence in the online landscape.

What Are the Recommended Best Practices for This Challenge?

- **BEST PRACTICE 1:** Build and nurture your online brand presence ([page 137](#)).
- **BEST PRACTICE 2:** Improve diner discovery through profile management on restaurant discovery apps, effective review handling, and SEO ([page 139](#)).
- **BEST PRACTICE 3:** Digitalise your menu ([page 140](#)).

We highly recommend embracing these best practices for the following compelling reasons:

- **Online visibility matters:** If you do not have a website, or you have not invested in your website's maintenance, it is time to make a change. Relying solely on map applications may not be enough, especially if your restaurant is not located in a high-traffic area. Keep in mind that today's diners turn to the internet for research before dining out.
- **Adapt to the digital age:** If your restaurant has yet to adapt to the digital age and you have been running it the same way for the past two decades, it is time for a transformation. Initiating your online presence is a significant first step, which opens doors to a world of new best practices that can revolutionise your operations. This will enable your website to become the central hub of your business.
- **Competitive edge:** Staying competitive in today's market is essential. The slightest improvement in your restaurant can make all the difference between mere survival and thriving success. By adopting these practices, you can gain an edge over the competition and attract more customers.

- **Attract new diners:** If you have noticed a decline in your customer base and are receiving fewer phone calls and struggling to attract new diners, you must consider adopting a fresh approach. Implementing these best practices will help revitalise your restaurant's appeal and draw in a new wave of customers.

BEST PRACTICE 1: Build and nurture your online brand presence

In the modern business landscape, it is evident that establishing an online presence is essential, especially with a well-designed website as the fundamental cornerstone. A website serves as a central hub for presenting basic business information, spanning from operating hours to menu offerings and social media connections. In addition, it often forms the bedrock upon which more sophisticated functionalities are built, including reservations, delivery services, and streamlined order management. Nonetheless, it is crucial not to overlook the importance of getting the basics right.

Recipe for success: Crafting your restaurant's online presence – A five-step guide:

1. **Decide what your website is about:** Once you have chosen your solution provider (either an existing solution or a customised development), the

first step is to clarify the purpose of your website and identify its essential features. You must think ahead, even if you plan to start with a small-scale website, as this foresight can simplify future implementations and expansions. What information are you looking to include, and what information do your customers seek? This may comprise details such as your opening hours, photos, the menu, contact information, and links to your social media profiles. Consider sharing the story of your restaurant's origin, its underlying motivations, and what sets it apart from competitors.

2. Gather the necessary information:

Whether you choose to build the website on your own or enlist the services of a professional, you must ensure that you have all the necessary materials and information prepared in advance. This proactive approach will help prevent delays and misunderstandings. Typically, a restaurant website includes photographs of your establishment, signature dishes you offer, written descriptions regarding your business, the menu (with or without prices), and various contact options (such as social media links, phone numbers, and reservation systems). It is advised to have all these elements ready before beginning the website creation process.

3. Consider all aspects carefully:

Your website may be scalable:

While creating a website may seem straightforward, it can quickly turn complex beyond imagination. Establishing an initial structure is essential to avoid any unnecessary costs. If you intend to expand your website by incorporating new sections, such as booking and ordering systems, make sure that it can be seamlessly integrated with your existing restaurant operations to maximise efficiency and convenience. To delve deeper into these best practices, we offer additional best practices on booking (Pathway 2 - Facilitating Booking: Easy Reservation Management and BEST PRACTICE 3: Digitalise your menu) and ordering (Pathway 4 - Improving Table Service: Faster and Better Processes).

4. Design and develop your website:

Developing a visually appealing and user-friendly website is key to establishing an online presence. Confirm that your website reflects your restaurant's branding by showcasing high-quality photos of your establishment and dishes and providing all the essential information your customers seek. Keep in mind the features you initially outlined, such as the menu, contact information, and links to your social media profiles. The design and development phase is where your vision transforms into a fully functional online platform for your restaurant. Ensure that the user

experience, which is a critical aspect of your design process, aligns with the purpose and vision you defined in step one.

5. Monitor and keep your website updated:

It is critical to monitor the performance of your website regularly following its launch. Employ web analytics tools to track visitor metrics, identify areas for improvement, and ensure a smooth user experience. Regularly update your website to reflect any changes in your business, such as modified opening hours, menu updates, changes in contact information, or new locations. Keeping your website fresh and updated is imperative to providing the best possible experience for your customers and maintaining a positive online reputation.

BEST PRACTICE 2: Improve diner discovery through profile management on restaurant discovery apps, effective review handling, and SEO

Maintaining a digital presence encompasses various elements, including effective search engine optimisation (SEO), strategic review management, and leveraging discovery apps. Implementing robust SEO strategies ensures that your restaurant ranks higher in search engine results, making it easier for potential customers to discover and choose your establishment for their needs.

Proactive review management allows you to monitor and respond to customer feedback, thereby enhancing your reputation and building trust. Additionally, leveraging discovery apps and platforms further expands your reach, helping new customers discover your restaurant and engage with your services. By embracing a comprehensive strategy for your digital presence, your restaurant can effectively attract and retain customers, ultimately driving growth and success.

Recipe for success: Improve diner discovery and reputation management - A five-step Guide:

- 1. Search for your business online and check the results:** Begin by conducting a thorough search of your restaurant online and examine the results that appear. This initial step is crucial to evaluate your current digital presence, offering valuable insights into how potential customers perceive your business and identifying opportunities for improvement.
- 2. Identify the applications and search engines where you want to appear:** Subsequently, pinpoint the specific applications and search engines where you would like your restaurant to feature prominently. Create accounts on these platforms and diligently follow their procedures for claiming ownership of your restaurant's information. Many platforms offer options such as "I'm

a Business” or “I’m a Restaurant” to facilitate this process. Taking control of your digital presence on these platforms empowers you to actively manage and curate how your restaurant is portrayed in the online realm.

3. Consistently maintain your restaurant’s information:

Consistency remains key, much like in the previous best practice. Keep your restaurant’s information readily accessible and meticulously up to date. The accuracy and timeliness of this information are vital to guarantee potential customers’ access to trustworthy and updated details regarding your establishment.

4. Review and optimise the restaurant content to be SEO-friendly:

When crafting online content, always bear in mind the principles of SEO. Optimise your content to align with search engine best practices, utilising relevant keywords, and making sure that your website’s structure and content are search engine friendly. These strategies collectively work to enhance your online visibility and expand your reach to a broader audience. If required, do not hesitate to seek professional guidance and assistance to ensure your SEO efforts are on point and yield the best results.

5. Solicit customer feedback and reviews:

Remember to encourage

your customers to share their experiences by leaving reviews on popular platforms at the end of the service. Actively engage with their reviews, responding professionally and courteously, regardless of whether they are positive or negative. Utilise their feedback as an opportunity to improve and enhance your restaurant’s reputation. Positive reviews and the respectful handling of negative feedback not only improve your online image but also act as social proof, thereby attracting new diners and demonstrating your dedication to customer satisfaction. By continuously monitoring and managing customer reviews, you actively contribute to your restaurant’s online presence and its potential for success.

BEST PRACTICE 3: Digitalise your menu

Digitalising a menu in a restaurant refers to the process of converting a traditional, paper-based menu into a digital format that can be accessed and viewed on electronic devices, such as smartphones, tablets, and computers. With a digital menu, your restaurant can provide customers with an immersive and interactive experience, displaying your offerings in a visually appealing and informative manner. Digital menus allow for easy updates, as they help restaurants to feature seasonal specials, promotions, and dietary information

instantly. Indeed, every advantage it offers to the restaurant also extends to diners and the restaurant’s online visibility. It has become increasingly common for potential customers to peruse menus online and determine their dining choices based on what each establishment presents. Ultimately, as demonstrated below, digitising the menu, although appearing straightforward, can serve as a pivotal step that aligns with various other restaurant processes.

Recipe for success: Designing an interactive digital menu – A five-step Guide:

- 1. Begin with your menu’s evaluation and analysis:** Before delving into the digital menu transformation, you must conduct an initial assessment. Assuming that your restaurant already has a menu in a traditional format, be it printed or in another form, take a close look at your existing offerings with the aim of understanding your menu’s structure, items, descriptions, and pricing. This serves as the foundation for digitising your menu effectively. Make sure that your menu is up to date and prepared before commencing the digitisation process.
- 2. Choose a solution provider and onboard them into digital menu development:** With the rise of digital menus in response to the COVID-19 pandemic, a plethora of solutions have flooded the market, simplifying

the process of creating digital menus for restaurants. Your first step should be selecting the one that aligns best with your specific requirements and budget. These options vary, from those exclusively offering digital menus to more comprehensive solutions that incorporate physical elements like QR codes and labels. Some even offer advanced features that can smoothly connect the digital menu with your ordering system and POS setup. Carefully assess your needs to determine which solution suits your restaurant best. After choosing your solution provider, initiate the interaction. In this step, you will closely collaborate with your selected solution provider or follow the provided manual, sharing the necessary information to customise the digital solution to meet your restaurant’s distinct requirements. Alternatively, if the platform is self-managed, you will be responsible for inputting menu information directly into the platform.

- 3. Enrich your digital menu with visual components:** If the solution permits, take the opportunity to enrich your menu by incorporating high-quality images of your dishes and beverages. This addition is pivotal for streamlining the digitisation process, and more importantly, for improving the customer experience. The visual appeal of your offerings can significantly influence diners’ choices

and expectations. The choice is yours; however, we strongly recommend that you include professionally taken photographs. While images captured with your mobile phone are acceptable, higher-quality pictures can significantly enhance the final appearance of your digital menu. Professional photographers specialise in this type of work, and their services are worth considering for achieving the best results.

Keep in mind that there will be a transitional phase for you, your staff, and your customers, and the results will become apparent in due time.



Explore the complete pathway, containing all the necessary information to implement the best practices outlined in this challenge, [located in the annex of this guidebook](#). In addition to the step-by-step instructions provided above, the pathway includes the benefits of its application, a thorough list of recommendations and prerequisites before initiating the implementation of the best practices, and a detailed description of the executed pilot experience.

Keep in mind that you can utilise the Digital Pathway Tool to identify and prioritise pathways based on your business objectives and current digitalisation status.

4. **Digitalise your menu using the solution platform:** This step is dedicated to the concrete digitisation process, during which you will either directly input menu items, descriptions, and prices into the digital platform or provide this information to your solution provider for menu configuration. Additionally, you can seamlessly incorporate eye-catching visuals into the menu, enhancing the presentation of each item.
5. **Test, launch, and manage your digital menu:** We highly recommend conducting a preliminary test with a small sample of customers prior to the full implementation. Choose off-peak hours and involve your regular patrons in a controlled trial. Inform them about the introduction of a new menu, allowing them to explore it and provide feedback or suggest any changes. Following thorough testing and necessary adjustments, extend the changes to the entire restaurant.

7.4.2 Pathway 2 – Facilitating Booking: Easy Reservation Management

Gone are the days when diners had to resort to manual reservation procedures involving phone calls or emails to secure a dining reservation. In the present era, a mere click consigns the outdated reservation procedure in the restaurant industry to the annals of history. The adoption of a modernised booking system, seamlessly integrated with the restaurant's infrastructure, is increasingly hailed as a best practice, and its implementation can be tailored to suit the unique characteristics of each establishment.

These innovative solutions empower clients to effortlessly make reservations, select their preferred dining choices, and receive instantaneous confirmations. By embracing these digital booking tools and management systems, restaurants can significantly improve their efficiency, reduce errors, minimise no-shows, improve diners' experience and optimise their seating capacity.

Hence, get ready to revolutionise your reservation process and deliver a hassle-free experience that encourages repeat visits from your patrons. Let's delve into the realm of booking platforms and management systems to unlock the full potential for growth and success in your restaurant.

What Are the Recommended Best Practices for This Challenge?

- **BEST PRACTICE 4:** Easy reservation management ([page 144](#)):
 - **Diner perspective:** A table reservation system
 - **Restaurant perspective:** An efficient reservation management system

We strongly recommend embracing these best practices for the following compelling reasons:

- **Improved booking efficiency:** If you are reliant on traditional paper-based booking methods and encounter difficulties in maximising your venue's capacity, implementing a digital reservation system can significantly improve your ability to manage bookings and optimise your restaurant's seating.
- **No more missed opportunities:** There is a chance that numerous reservations are missed because it is not possible to consistently answer phone calls while attending to your restaurant's demanding tasks, resulting in missed opportunities to serve potential customers. A reservation system enables both you and your staff to focus on delivering a dining experience rather than fielding

phone calls, ultimately enhancing productivity and the quality of service provided.

- **Minimised no-shows:** With a well-structured reservation system in place, the likelihood of no-shows is significantly reduced, resulting in a more efficient operation and maximising your revenue potential.
- **Improved accessibility and enhanced diner experience:** Incorporating a reservation system ensures that customers have the flexibility to make bookings around the clock, irrespective of your restaurant's ongoing activities. This extended accessibility not only accommodates a global clientele but also empowers potential diners to peruse your restaurant's availability and select the most convenient time to suit their preferences.

BEST PRACTICE 4: Easy reservation management

Diner perspective — A table reservation system: In our rapidly evolving world, ensuring a smooth and hassle-free booking process is fundamental for the success of restaurants. The integration of a restaurant reservation system has become indispensable, granting diners the convenience of effortlessly reserving tables, whether through the restaurant's website or a third-party application. This user-friendly process typically includes selecting the desired date, time, party

size, and if applicable, the preferred dining location, followed by a simple confirmation step. Restaurants have the flexibility to either develop an in-house reservation system accessible through their website or opt for a third-party platform that centralises bookings within a single application. This duality of choice empowers restaurants to effectively manage their seating capacities while ensuring that diners can conveniently secure their preferred dining experience, thus promoting both customer satisfaction and operational efficiency.

Restaurant perspective — An efficient reservation management system: For the restaurant, a reservation management system enables efficient and organised scheduling of reservations and table allocation. It helps optimise staffing, manage customer flow and ensure smooth operations by providing a centralised platform to keep track of bookings, manage waitlists and handle customer data. The use of a reservation management system can help restaurants plan for busy periods, improve the overall dining experience for customers, and increase operational efficiency.

Recipe for success: Simplify table reservation – A five-step guide:

1. **Start with the requisites:** Begin by establishing the necessary framework for reservation management. Ensure you have the table layout readily available, decide on the placement of

the reservation system (possibly on your website), and select the software that best aligns with your needs and preferences. Start by selecting a reservation management system that suits your restaurant's specific needs. Seek user-friendly software that accommodates your specific requirements, and ensure you have the required infrastructure and hardware in place to set up the solution.

2. **Setting up the basics:** Once you have chosen the solution, start the process by adapting to it, onboarding the tool and establishing communication with the provider. Tailor the system to align with your restaurant's operational hours, real-time availability and seating capacity. This process involves following the specific requirements outlined by the solution provider, which may include determining factors such as the maximum number of guests for table bookings (including group reservations), preferred dining locations (such as terraces or dining halls) and any pre-selected menu choices. Based on the provider's protocols, they may request this information and subsequently present a tailored proposal. Additionally, you might be asked to provide input regarding colours, images and fonts to maintain branding consistency with your restaurant. Remember to include contact information, such as an email or phone number.

3. **Designing the booking form and implementing the solution:** With the availability of the necessary data, this step involves designing and developing the booking form. This implies integrating the entire flow into the output placement, which could be the restaurant's website or a third-party application.

4. **Staff training and solution testing:** Provide comprehensive training for your staff, especially those tasked with reservation management, to ensure their proficiency in using the system, including handling booking confirmations and addressing special requests or adjustments. Before the system's launch, undertake meticulous testing to detect and resolve potential issues. Examine various scenarios, including peak booking periods, to ascertain the system's adaptability to diverse situations. Verify the accuracy of bookings received. Additionally, communicate the introduction of the new reservation system to your customers, guiding them through its usage and ensuring their awareness of the booking process and any associated procedural modifications.

5. **Ask for feedback, collect data, and improve the booking process:** Regularly analyse reservation data to identify patterns and areas for improvement. Use this information to fine-tune your reservation strategy

and adapt to evolving customer preferences. By remaining flexible and responsive, you can enhance the overall efficiency of the restaurant and provide an improved dining experience for your guests.



Explore the complete pathway, containing all the necessary information to implement the best practices outlined in this challenge, [located in the annex of this guidebook](#). In addition to the step-by-step instructions provided above, the pathway includes the benefits of its application, a thorough list of recommendations and prerequisites before initiating the implementation of the best practices, and a detailed description of the executed pilot experience.

Keep in mind that you can utilise the Digital Pathway Tool to identify and prioritise pathways based on your business objectives and current digitalisation status.

7.4.3 Pathway 3 – Intelligent Warehouses: Towards Optimised Food and Stock Tracking

Managing your restaurant's inventory is a complex and multifaceted process that plays a pivotal role in the overall efficiency and success of your establishment, and it is imperative to discuss the intricate task of managing the ingredients featured in your menus. This task encompasses the rigorous process of upholding food safety standards, beginning from the moment these ingredients arrive from suppliers until they are served at the table. The task entails meticulous scrutiny to ensure that everything remains in perfect condition and impeccable quality.

It must be ensured that nothing goes to waste and that nothing is inadvertently omitted, as both scenarios have a direct impact on the bottom line, impacting the restaurant's costs and profitability. This challenge calls for strategies to effectively digitise these processes within your restaurant, ultimately leading to the establishment of an intelligent warehouse. The goal is to streamline these operations, reducing the time and effort required with meticulous control, and ensuring that your restaurant operates efficiently.

What are the Recommended Best Practices for This Challenge?

- **BEST PRACTICE 5:** Menu engineering and recipe digitalisation ([page 148](#)).
- **BEST PRACTICE 6:** Inventory tracking digitisation ([page 149](#)).

We strongly recommend adopting these best practices for the following compelling reasons:

- **Upgrade inventory tracking:** Presently, your inventory tracking is either minimal or relies on rudimentary methods, often involving a substantial amount of paperwork, such as delivery notes and due date records. This can cause inefficiencies, errors and increased labour costs, making it imperative to consider upgrading to more advanced, digital solutions to improve your inventory management.
- **Reduce your restaurant's food waste:** It is likely that you have observed a significant amount of food wastage in your operations, and this not only impacts your sustainability efforts but also impacts your appeal to eco-conscious consumers. Reducing food waste and optimising your resource utilisation are essential steps towards creating a more sustainable restaurant model that benefits both the environment and resonates with eco-conscious customers.
- **Digital transformation within your restaurant:** If you are seeking to

propel your business forward by adopting a sophisticated digital system to manage your inventory, streamline supplier relations and optimise kitchen processes. This strategic move not only enhances your competitive advantage but also enables your restaurant to operate more efficiently, resulting in quicker service, fewer errors and the agility to promptly respond to shifting customer preferences and market trends.

- **The focus is on efficiency:** In your restaurant operations, you seek to attract more diners by enhancing efficiency through cost reduction, expense management and customer satisfaction. Achieving this efficiency hinges on adopting best practices that streamline processes, offering meticulous control over inventory and resource allocation while curbing unnecessary costs. Enhancing process efficiency revolves around pinpointing manual and repetitive tasks and striving to automate them.
- **Gain insights for informed decision-making:** If you aspire to access a greater volume of improved insights into your business operations, these best practices enable you to gather valuable data on ingredient usage, customer preferences and market trends. These data can inform future menu decisions, helping you refine your offerings and stay ahead of the competition by making informed

choices that align with evolving consumer tastes and industry trends.

demand for each dish, the possibilities become truly remarkable.

BEST PRACTICE 5: Menu engineering and recipes digitalisation

In the aftermath of the COVID-19 pandemic and the economic repercussions of Russia's invasion of Ukraine, which have largely led to inflation, certain items and ingredients have been notably affected. In "Challenge 1 – Digital Presence: Connecting with Diners," we discussed the concept of creating a digital menu and highlighted the advantages it brings, such as the flexibility for restaurants to adjust prices seamlessly, without the need to strike through physical menus or undertake menu reprinting. In this best practice, we take it a step further.

The price of dishes is determined by the restaurant's costs to prepare them, which include ingredient prices, production expenses, employee wages and added profit margins. By extending digitalisation to restaurant operations, you attain multiple benefits. These include the standardisation of your dishes, assurance of consistent preparation processes and ingredients, meticulous tracking of dish costs (referred to as menu engineering or, simply, the practice of assigning price tags to each dish) and continuous monitoring of ingredient price fluctuations. By integrating these data with kitchen processes and a system that gauges the

Recipe for success – A five-step guide to digitising your recipes:

- 1. Assess your restaurant's performance:** The impact of rising ingredient prices on your business necessitates some form of action. It is imperative to identify how these changes have influenced your restaurant, particularly highlighting the key elements at play. Acquiring a comprehensive understanding of each aspect of your business will provide clarity as you embark on this process. This encompasses a thorough examination of your suppliers, the ingredients, shifts in your staff, price escalations, salaries and other economic variables. By comprehensively assessing these factors, you can better navigate and address the challenges posed by ingredient price increases.
- 2. Have all the information at your fingertips:** Make certain that you possess convenient access to all data concerning your menu, including dish costs and profitability. These data will serve as the foundation to be uploaded into the solution, requiring the dedication of the necessary resources. We recommend patience as the implementation and integration process might take some time; however, the results are certain to be

highly beneficial in optimising your restaurant's operations.

3. Watch out for supplier engagement:

Your suppliers and supply chain management are critical components in this newly digitised process. BEST PRACTICE 6: Inventory tracking digitisation will delve into how to effectively engage with your suppliers and streamline this aspect of your business. By fostering strong supplier relations and implementing digital solutions, you can further optimise your restaurant's response to ingredient price fluctuations. If you have doubts regarding your suppliers' cooperation, consider postponing the implementation of this best practice or seek an alternative solution that does not rely on them.

4. Introduce all data into the system or solution:

Now that you have assessed your restaurant's performance, gathered essential information about your menu and strengthened supplier relations, it is time to introduce all this valuable data into your chosen system or solution. This step involves careful data entry, ensuring that your digital tool has accurate and up-to-date information. Take the time to meticulously input dish costs, profitability data, supplier details and ingredient prices. Additionally, include the necessary steps in the recipes by following the guidelines specified by the tool. Engage your chefs and

kitchen staff in this process, as they will be the primary users of the recipe tracking system in the kitchen.

This foundational process might require some dedication of resources; however, the results are certain to be highly beneficial in optimising your restaurant's operations. By maintaining this database within your system, you will be well-prepared to make informed decisions and effectively manage ingredient price fluctuations, ultimately enhancing both kitchen efficiency and your restaurant's bottom line.

5. Try it, test it, and begin making data-driven decisions:

With all your data accurately integrated into the system, you can now put your digital solution to the test. Start by running simulations and scenarios to assess how the changes in ingredient prices impact your menu and overall kitchen operations. Analyse the results and adapt your menu and procurement strategies accordingly. Put it to use for a specific period, examine all the insights provided by the solution, and begin adapting your procedures and your restaurant in response to the data and recommendations it offers.

BEST PRACTICE 6: Inventory tracking digitisation

Conventional inventory management practices have often relied on old-school

methods, including paper and pen or basic digital documentation. While these methods have served their purpose, they are no longer sufficient for today's dynamic industry. This best practice guide outlines the transition from outdated inventory tracking to modern digitisation in the restaurant business. We will explore key steps to select the right solution provider, assess supplier readiness, overcome resistance to change, ensure technical compatibility and utilise data for data-driven inventory management. These steps can help your restaurant streamline operations, cut costs and enhance customer satisfaction through efficient inventory tracking.

Recipe for success: Implementing an efficient inventory management – A five-step guide:

- 1. Assess your current inventory and needs:** Begin by conducting a complete assessment of your current inventory management practices and needs. Simultaneously research digital solutions that align with your requirements. Evaluate the layout of your warehouse and your existing processes and identify the pain points and challenges. Determine the specific functionalities and features that you need in a digital solution to address these issues. Look for software or tools specifically designed for the restaurant industry, comparing factors such as functionalities, user-friendliness, pricing and customer

support. Make sure that the solution you choose is adaptable to your unique inventory challenges, whether it involves perishable goods, varying order volumes or multiple suppliers.

- 2. Digital transformation and data gathering:** Shift your focus from mere digitalisation to a holistic digital transformation. Consider how your existing processes can be fundamentally improved through the adoption of the chosen digital solution. Map out and analyse your existing processes, with a special emphasis on the stocktaking processes. Prioritise the collection of all the necessary data required by the system, including information about suppliers, ingredients and recipes. The significance of this step cannot be emphasised enough, as it requires dedicated time and consideration. It is imperative to recognise that transitioning from manual to digital processes is a gradual adjustment, and it may require time before its full benefits become evident.
- 3. Ensure adherence to solution requirements, and when required, implement supplier integration:** As mentioned above, to implement your selected digital inventory management solution effectively, first confirm that your restaurant possesses the requisite hardware and software, typically a computer or tablet with an up-to-date

operating system, to support the system. Simultaneously assess the advantages of supplier integration to optimise your ordering and replenishment processes, taking into consideration factors such as supplier cooperation, technical feasibility and potential automation opportunities. Collect all supplier data, whether it is currently stored on paper or in other systems and assess its suitability for integration with the chosen solution. Collaborate with the solution provider, maintain open communication with them, and seek their guidance on the necessary steps before commencing the solution configuration.

- 4. Onboarding into the solution, implementation, and training:** With the foundation laid in the earlier steps, it is now time to transition into the selected digital solution. Begin by preparing the software and configuring it to your restaurant's specific needs. Migrate your existing data, such as supplier details and inventory lists, ensuring data integrity. Thoroughly train your staff on using the software and conduct testing to address any issues. Run the digital system in parallel with manual processes for a transitional period and gather feedback for further refinements. Gradually adopt the new system to minimise disruption, while providing continuous support and monitoring. Once confident, make the full transition, embracing

the real-time benefits and enhanced inventory management capabilities of your digital solution. A well-executed onboarding process is key to reaping the system's full potential and enhancing your restaurant's operations. Keep in mind that the onboarding process for each solution will vary.

- 5. Monitor and optimise: Data-driven inventory management:** With your digital solution in place, it is now time to unlock the power of data-driven inventory management. In this step, you will utilise the system's capabilities to gather real-time insights into your restaurant's stock levels, supplier performance and consumption patterns. Monitor inventory trends and analyse historical data to make informed decisions regarding stock replenishment and menu optimisation. Leverage reporting and analytics tools to identify cost-saving opportunities and areas for improvement. As you harness the wealth of data at your disposal, your restaurant's inventory management will become more efficient, responsive and cost-effective. Implement continuous improvement in the process by identifying enhancements and gradually applying them.



Explore the complete pathway, containing all the necessary information to implement the best practices outlined in this challenge, [located in the annex of this guidebook](#). In addition to the step-by-step instructions provided above, the pathway includes the benefits of its application, a thorough list of recommendations and prerequisites before initiating the implementation of the best practices, and a detailed description of the executed pilot experience.

Keep in mind that you can utilise the Digital Pathway Tool to identify and prioritise pathways based on your business objectives and current digitalisation status.

This, in turn, results in an increased number of positive reviews and an influx of recommendations from satisfied patrons. Achieving this level of excellence necessitates the optimisation of processes, reduction of wait times, and ensuring that the staff is equipped with the necessary tools and resources to deliver exceptional service.

The days of taking orders manually on paper or shouting them through the kitchen are over. These methods not only lead to more errors but also project a less favourable image of the establishment. Therefore, the solution lies in empowering your waitstaff with digital devices and seamlessly transferring orders directly to the kitchen. This minimises errors while expediting the entire process. In certain cases, the customers can also improve efficiency by using their own devices or digital kiosks to place orders themselves, thereby accelerating the service.

It is time to embark on a journey to streamline your table service processes, forging a seamless connection between the front end and the kitchen. You should acquire tools that craft remarkable dining experiences, resulting in increased customer satisfaction. It is further helpful to embrace the challenge of making your processes swifter, more efficient, and truly magical in the eyes of your patrons.

What Are the Recommended Best Practices for This Challenge?

- **BEST PRACTICE 7:** Introduce digital ordering and command management systems ([page 153](#)).
- **BEST PRACTICE 8:** Allow digital payments ([page 154](#)).

BEST PRACTICE 7: Introduce digital ordering and command management systems

In our fast-paced and ever-changing world, ensuring a seamless and convenient order management process is paramount for the success of restaurants. The integration of digital ordering and the internal order management system is not indispensable, as it offers patrons and restaurant staff the convenience of placing and managing orders effortlessly, whether through the restaurant's website or a third-party application. This user-friendly process typically involves selecting the desired dishes, customising options, specifying pickup or delivery preferences, and confirming the order with a simple tap. Restaurants have the flexibility to either develop their in-house digital ordering and order management system that is accessible through their website or opt for a third-party platform that consolidates orders within a single app. This versatility allows restaurants to efficiently manage their order flow while ensuring that diners can easily access their preferred dining experience, thus enhancing both customer satisfaction and operational efficiency.

Recipe for success: Perfecting your restaurant's online ordering system – A five-step Guide:

1. **Create a digital menu:** When placing orders, the servers can take orders using your system or device, or customers can place orders automatically via a digital menu. Incorporating images in the digital menu can simplify the process; however, it is especially valuable when customers can explore the menu independently. To gain deeper insights, consult the BEST PRACTICE 3: Digitalise your menu, as detailed in "Challenge 1: Digital Presence: Connecting with Diners."
2. **Accessing the menu:** If you intend to utilise a digital menu for customers to view or place orders, you must provide them with a means of access, such as a QR code. If customers are going to place orders using the digital menu, you will need to print QR codes for each table. Additionally, it is critical to ensure that your business has a reliable internet connection for the customers to access the digital menu seamlessly. We encourage you to infuse creativity into this task. Utilise QR codes that customers can access via mobile phones and place them in convenient spots, such as napkin holders, directly on the tables, or even on napkins. It is crucial to consider that you may have patrons who either lack mobile phones or encounter

7.4.4 Pathway 4 – Improving table service: Faster and better processes

While dining out, customer service and the speed of service consistently top the list of priorities. Elevation of the dining experience and enhancement in the speed of service directly correlate with increased customer satisfaction.

difficulties accessing the digital menu, so be prepared with alternatives to accommodate all diners and provide assistance whenever required.

3. **Connect all your devices:** Connecting your tablet, mobile device, or other gadget to the POS system eliminates the need for your waitstaff to duplicate orders. Furthermore, by establishing a connection between your POS system and the kitchen through a printer or a screen, you can further streamline the process, reducing redundant tasks and enhancing efficiency while optimising your processes to prevent duplicating your staff's workload.
4. **Close the table service process with easy payments:** If the solution includes a payment feature, it can empower customers to settle their bills without waiting for the server to bring the check, thereby expediting your table turnover rate. Be sure to explore the BEST PRACTICE 8: Digital payments in this challenge for further insights.
5. **Train your staff:** When introducing new tools, allocate some time to train your staff. Before implementing these tools in the actual scenario, it is recommended that all your staff be trained on how to operate them and how to address any issues to avoid a negative impact on the business.

BEST PRACTICE 8: Digital payments

Table service holds immense significance, particularly when viewed through the lens of digital payments. In today's fast-paced world, customers expect convenience and speed in their dining experiences. By embracing digital payment solutions, restaurants can offer a seamless and efficient transaction process, allowing diners to settle their bills quickly and conveniently at the table. This not only enhances customer satisfaction but also streamlines operations by reducing the need for manual handling of cash or card transactions. With digital payments, restaurants can provide a frictionless payment experience, improve table turnover, and create a modern and customer-centric environment that keeps up with evolving consumer expectations.

Recipe for success: Crafting your restaurant's digital payment strategy - A five-step Guide:

1. **Collaborate with a payment service provider and assess the necessary device and material requirements:** To effectively integrate digital payment methods into your restaurant's operations, the initial and pivotal step involves a partnership with a trusted payment service provider before conducting a comprehensive assessment of the essential hardware and materials required. Forming a strategic collaboration with a

reputable payment service provider is a crucial requirement to facilitate a seamless shift towards digital transactions. Close cooperation with this provider is imperative to meticulously scrutinise the specific devices and materials necessary to facilitate the chosen digital payment solutions. This evaluation encompasses various components, including POS systems, card readers, QR code scanners, mobile payment terminals, and other vital hardware and software elements.

2. **Integrate digital payments with your software:** Explore the integration of digital payment solutions with your restaurant's existing software systems and make sure that the chosen payment method harmoniously works with your POS software, accounting systems, and other operational tools. Collaborate with your software providers or payment service partners to formulate a cohesive and efficient digital payment ecosystem that streamlines transactions, reduces duplicate steps for your staff, and ensures accurate final accounting results.
3. **Implement and train your staff:** Once the digital payment solution is in place, the subsequent step is to integrate it into your restaurant's daily operations. The chosen solution must not only prioritise user-friendliness but also reliability and efficiency

to enhance the experience of your customers, guaranteeing smooth and hassle-free payment transactions. Staff training plays a critical role during this phase, as it ensures that your employees can proficiently manage the new technology, assist customers in navigating the payment process, swiftly address any issues, and ultimately deliver a stress-free payment experience.

4. **Test new payments and make the experience even better by connecting with ordering:** Before delving into further developments, it is essential to adopt a gradual approach to implementing new payment procedures, commencing with a carefully structured transition phase. This transitional juncture is pivotal in placing staff training and adaptation at the forefront. It is an indispensable period, allowing both your team and patrons to acclimate to novel payment methods and systems. To enhance the overall dining experience, the divide between digital payments and the ordering process should be bridged, as recommended in the prior best practice. This endeavour entails rigorous testing and seamless integration, culminating in a more fluid transition from order placement to payment. By forging these critical connections, you can enhance order accuracy, minimise wait times, and fine-tune restaurant operations, culminating in a more synchronised

and elevated dining experience for your customers.

5. Metrics and continuous evolution:

The final step in perfecting your restaurant's digital payment system is based on metrics and constant evolution. Hence, it is crucial to establish a robust system to track and analyse key performance metrics related to your digital payment solutions. These metrics can include transaction success rates, customer feedback, and processing times, among others. Utilising the insights acquired from these metrics to refine your digital payment processes can help you stay aligned with the latest industry trends and proactively adapt to evolving customer preferences.



Explore the complete pathway, containing all the necessary information to implement the best practices outlined in this challenge, [located in the annex of this guidebook](#). In addition to the step-by-step instructions provided above, the pathway includes the benefits of its application, a thorough list of recommendations and prerequisites before initiating the implementation of the best practices, and a detailed description of the executed pilot experience.

Keep in mind that you can utilise the Digital Pathway Tool to identify and prioritise pathways based on your business objectives and current digitalisation status.

7.4.5 Pathway 5 – Business Insights: Gathering and Using Data (Data and Market Intelligence)

The previous challenges have focused on addressing various restaurant-specific issues, including those related to reservations, table and order management, as well as inventory and

food tracking. However, among the most significant responsibilities of restaurants, the need to stay informed regarding their business performance and the broader market dynamics is consistently highlighted by industry experts. It is not solely a matter of discerning whether your establishment is thriving or struggling; rather, it pertains to the ability to quantify these aspects accurately. This accuracy provides valuable insights to make well-informed decisions while also preparing for challenging situations where this information is indispensable for sustained operations. This information is also critical in some cases, where restaurateurs need to make the tough decision to close down the business. Let's explore the ways to obtain a more comprehensive understanding of your business.

What Are the Recommended Best Practices for This Challenge?

- **BEST PRACTICE 9:** Implement a POS system in your restaurant ([page 158](#)).
- **BEST PRACTICE 10:** Harness business data insights for informed decision-making ([page 160](#)).

We strongly recommend embracing these best practices for these compelling reasons:

- **You are eager to delve deeper into your business to learn more about it:** To pave the way for

success, it is imperative to acquire a comprehensive understanding of your current business status. Embracing these best practices will furnish you with a transparent view of your restaurant's performance, enabling you to pinpoint areas for enhancement and expansion. Are you aware of your annual business profits? Do you have a clear grasp of your monthly expenses, cash flow, and supplier expenditures? With these practices in place, you will have all the critical information at your fingertips.

- **You aim to base your decisions on data rather than solely relying on intuition:** Intuition holds excellent value, as no one can understand your business better than you. However, we offer an additional tool to provide you with valuable data for more informed decision-making. Are you aware which of the dishes yields the highest profits? Do you know the days when filling your restaurants is a challenge? Are rising food and ingredient prices impacting your profitability? All this information is already present within your business; we aim to assist you in organising it effectively, enabling you to make well-informed decisions.
- **You should centralise your restaurant control:** In your restaurant, all processes are interconnected. While we understand that some restaurant owners prioritise offering gastronomic experiences,

it is essential to remember that a restaurant, at its core, is a business driven by financial outcomes. In the restaurant industry, as in any other, success is ultimately dictated by the payment from customers. In such a scenario, a centralised system that can efficiently track and oversee multiple facets of your restaurant's financial transactions within a single platform is of vital importance. This solution extends beyond merely documenting customer orders and payments, since it also includes vital components such as reservations and inventory management, table allocation, and order processing.

- **You aspire to gain business resilience:** Experts emphasise that a key factor in bolstering the resilience of your restaurant is gaining an in-depth understanding of its business. It encompasses insights into your customers, daily operations, and the broader market landscape. Armed with this information, you can make more informed decisions and adapt more effectively to shifts and challenges.

BEST PRACTICE 9: Implement a point-of-sale system in your restaurant

In essence, a POS system for restaurants is a computer-based technology that streamlines the payment process. This system usually incorporates hardware

to oversee customer payments and their management. Furthermore, it also encompasses features for handling seating arrangements, table assignments, menu items, and inventory control.

As the heart of a restaurant's digital infrastructure, a robust POS system is no longer a luxury but rather a necessity for establishments that are striving to thrive in today's competitive market. Let's explore various perspectives and reasons why restaurants, regardless of their size or culinary speciality, should prioritise the implementation of an integrated POS system, recognising it as an essential requirement in today's competitive market.

Recipe for success: Unleash the potential of a point-of-sale system - A five-step guide:

1. **Assess your restaurant's unique needs:** Every restaurant is distinct, and your choice of a POS system should align with your specific requirements. Begin by assessing the nature of your establishment. Fine dining restaurants may prioritise systems that enhance staff-customer interactions, whereas casual establishments and bars may require features such as bill splitting and quick transactions. Think of your POS system as a tool to empower your staff to provide exceptional customer service.

2. **Choose a reliable provider:** After identifying your requirements, select the most suitable POS system catering to your needs. This selection process entails considering various factors, including the unique demands of your business, your budget, the necessary hardware components, the devices essential for recording sales (such as computers or tablets), the number of cash registers required, and the types of accepted payment methods. Consider your connections with banks or financial institutions along with the potential for integrating your POS system with other software in use.

3. **Set up the POS system in your restaurant:** Commence with thorough planning, considering the ideal device placements, and ensuring hardware compatibility. Subsequently, entrust the professional installation to a technician or IT expert to mitigate potential technical issues. The core of your POS system resides in its software; hence, collaborate closely with your selected POS provider to tailor the software to your restaurant's distinct requirements. This includes configuring menu items, pricing, tax rates, and payment preferences. Ensure that the software is fine-tuned to your specific restaurant operations and be aware that guidance and support from the solution provider are usually available throughout the entire process.

4. **Invest in staff training:** Implementing a POS system is a significant change for your staff. Therefore, providing proper training to operate a POS system is essential, especially if you plan to use mobile devices for POS operations. Invest time and resources in training to ensure that your staff can maximise the operational benefits of the system. Well-trained employees can use the system efficiently and provide a better service to your customers. Throughout the process, maintain a focus on your staff, fostering transparency in your plans and building trust with them. It is not uncommon to face resistance to change, particularly in digital transformation efforts. Therefore, to address this issue, identify and begin with the staff members who are most enthusiastic and committed to embracing the changes.

5. **Foster integration between your POS system and other restaurant solutions and explore external third-party integrations:** While your POS system functions as the control hub for your restaurant, it is critical to evaluate its seamless integration with other vital software applications. Which applications are currently in use and require synchronisation with your POS terminal? This encompasses inventory and supplier relations, your reservation and table management system, and your CRM. Reach out to your solution provider to investigate

these potential connections, as they will enable the streamlined management of your restaurant, ensuring that all aspects of your operation are interconnected.

BEST PRACTICE 10: Harness business data insights for informed decision-making

Operating a restaurant presents formidable challenges. Beyond providing exceptional service to patrons, it requires meticulous inventory management, diligent oversight of ingredients, fostering a positive working environment for kitchen and dining room staff, attentiveness to the restaurant's public perception (including both word-of-mouth and online reviews), efficient reservation management, and vigilant kitchen supervision. All of these tasks demand access to timely and accurate information for sound decision-making. Unfortunately, such essential information is not always readily available, and we recognise that the burden of handling bureaucratic and financial responsibilities typically falls upon consultants and accountants, particularly in small, family-owned businesses.

In the context of this best practice, we aim to highlight a fundamental recommendation by industry experts: restaurant managers should maintain immediate access to vital data and insights related to their business operations. What data and information

are accessible to restaurant managers? How can they obtain and effectively utilise this information? Let's further assess this best practice, which, in contrast to other readily available practices, delves not only into software or hardware but also into the outcomes derived from them.

Recipe for success: Track your restaurant metrics - A five-step guide:

- 1. Examine the restaurant - What information do you have regarding it?** Before applying this guide, take a close look at your restaurant and understand its unique characteristics, including the type of cuisine, size, the demographics of your clientele, and the specific expectations and challenges that make your establishment stand out.
- 2. Have you gathered all the necessary components? Metrics represent the final phase:** At this step, you should ensure that all the fundamental elements are in place. This step involves verifying that the tools, software, and processes are in a position to collect the data required for the digital transformation. Avoid unnecessary complexity, and steer clear of intricate tools for result measurement. Utilise the tools you are already employing or intend to adopt.
- 3. Data compilation through digital solutions:** During this phase, you

are required to investigate the digital solutions at your disposal for data acquisition. Examine the current tools in operation, such as the POS system and ordering and booking management systems. If needed, evaluate the possibility of incorporating new solutions and prioritise selecting tools that provide data visualisation and extraction capabilities to maintain a streamlined and efficient approach to data management.

- 4. Analyse your data:** This step involves identifying areas for improvement, addressing challenges, and crafting and implementing solutions based on the data insights. If you feel overwhelmed, do not hesitate to seek support from experts or data analysts. Implement the necessary changes, measure their impact, and remember to compare post-implementation results with the initial data to track your progress.
- 5. Continuous improvements:** The final step emphasises the importance of ongoing improvements. It is a cycle of refinement and enhancement based on the insights acquired from your data. Always keep an eye on whether the implemented solutions are successful and be ready to adapt and optimise your restaurant's operations for continuous success.



Explore the complete pathway, containing all the necessary information to implement the best practices outlined in this challenge, [located in the annex of this guidebook](#). In addition to the step-by-step instructions provided above, the pathway includes the benefits of its application, a thorough list of recommendations and prerequisites before initiating the implementation of the best practices, and a detailed description of the executed pilot experience.

Keep in mind that you can utilise the Digital Pathway Tool to identify and prioritise pathways based on your business objectives and current digitalisation status.

7.4.6 Pathway 6 - Traceability and Cleaning: Keeping Food Safe

Sanitation and hygiene, along with the traceability of food, are undeniably among the most critical aspects of a restaurant's operation. These factors play a pivotal role as they directly influence the well-being and health of your diners. First, it is an obligation on the part of restaurants

to keep the premises and kitchens clean, maintain the inventory, and control the state of each ingredient. However, control does not need to be necessarily manual and rudimentary. This challenge presents new, digital methods to control the traceability and cleanliness of your restaurants. This function, despite being an internal task for the restaurant, is relevant for the diners: health inspection or bad food is on the top of the list of deterrents to return to a restaurant and can reduce recommendations and reviews. Implementing tools that help in traceability systems or cleaning protocols and processes can help in keeping food safe. Let's dive into ways to enhance these tasks as outlined in the best practices established for this challenge.

What are the recommended best practices for this challenge?

- **BEST PRACTICE 11:** Monitoring food safety ([page 163](#)).
- **BEST PRACTICE 12:** Cleaning management ([page 164](#)).

We strongly recommend embracing these best practices for the following compelling reasons:

- **Enhanced food safety and compliance:** Implementing digital traceability and cleaning management systems ensures that your restaurant consistently meets and exceeds food safety standards. This minimises

the risk of foodborne illnesses and potential legal issues, safeguarding your customers as well as your business.

- **Performing the task manually despite the risk of errors:** Engaging in manual processes, despite the potential for errors, may be a consequence of a lack of the essential tools and systems required to optimise operations and improve efficiency. This deficiency can result in increased workloads, high chances of errors, and delays in managing pivotal tasks, such as tracking and monitoring, which are fundamental for upholding food safety and quality standards. As a direct response to this challenge, several easily accessible digital solutions can enable meticulous oversight of this pivotal facet within your restaurant.
- **Enhanced customer trust and reputation:** By diligently implementing digital traceability and cleaning management, you demonstrate a strong commitment to food safety and quality. This fosters customer trust and contributes to a positive reputation. Happy, confident customers are more likely to become loyal patrons and brand advocates, bolstering your restaurant's long-term success.
- **Continuous improvement and adaptability:** The adoption of digital solutions allows for continuous

improvement and adaptability. Through data-driven insights, you can identify areas for enhancement in food safety, cleaning, and overall operations. This flexibility is crucial in staying ahead in a competitive and ever-evolving industry.

BEST PRACTICE 11: Monitoring food safety

Ensuring food safety and traceability is of utmost importance, since any health issues arising from your restaurant, especially related to food, can not only decrease diners' interest but also potentially lead to the closure of your establishment, depending on the visibility of the issues. Therefore, embracing digitalisation is a transformative force in upholding your customers' well-being, safeguarding your reputation, and meeting legal requirements. Traditional methods that are prone to errors and time-consuming processes can be revolutionised through digitalisation, enhancing both customer safety and your business's integrity.

Recipe for success: Keeping food safe – A five-step guide:

1. **Know your procedures:** Begin by conducting a comprehensive assessment of your restaurant's specific food safety requirements and challenges and identify areas where a digital solution can make the most
2. **Research and select the right solution for your restaurant:** It is essential to conduct a thorough evaluation of your options as you research digital solutions. Strive to find a solution that not only caters to the specific needs of your restaurant but also encompasses the crucial features essential for effective food safety management. These solutions often feature user-friendly interfaces that simplify the onboarding process for your restaurant staff. Based on the solution, they can include features such as HACCP forms, temperature monitoring for ingredients, digital checklists, and standardised protocols. They may also offer real-time alerts to notify staff or management of critical parameters, such as temperature or hygiene standards, as well as reporting tools to track performance. Ensuring seamless integration with your existing restaurant processes is a pivotal element, as it guarantees a smooth and efficient alignment with daily operations, thereby posing as a fundamental factor for achieving success.
3. **Customise the solution and implement it in your restaurant:** Work closely with the chosen solution provider to customise the system

to meet your restaurant's unique requirements. This may include setting up temperature sensors, critical control points, and safety checklists. Implement the solution gradually to allow for a smooth transition and minimal disruption to daily operations.

4. **Train your staff in the new digital procedures:** Provide thorough training for your staff to ensure that they accurately understand how to effectively use the new digital solution. This includes providing training on data input, monitoring, and reporting procedures. Emphasise the importance of food safety protocols and the manner in which the digital system supports compliance. Maintain transparency throughout the entire process, as any alterations to any daily operations can potentially disrupt your staff's routine. It is vital to communicate openly with your team and stakeholders, providing them with clear information and guidance regarding the changes being implemented. This transparency fosters understanding, minimises resistance, and ensures a smoother transition to the new food safety practices. Additionally, it encourages open dialogue and feedback channels, allowing for constructive discussions and adjustments as needed, to ensure that the restaurant is running efficiently and harmoniously.

5. **Continuously monitor the effectiveness of the new solution and strive for ongoing improvement:** Regularly monitor the performance of the digital solution and track its impact on food safety practices. Utilise the data collected to identify areas for improvement and make necessary adjustments. Ask for feedback from your staff and customers to refine the system and make sure that it continues to enhance food safety. Furthermore, encourage employees to report any safety concerns or suggestions for improvement.

BEST PRACTICE 12: Cleaning management

In the fiercely competitive restaurant sector, maintaining impeccable cleanliness and hygiene standards is not merely a regulatory necessity but also a fundamental component in crafting a delightful dining experience. To this end, numerous restaurants are increasingly adopting digital cleaning management solutions. Within this framework, we explore the streamlining of record-keeping processes, the identification of areas that require routine surveillance such as machinery, and the integration of digital monitoring across various facets of restaurant operations, spanning from the dining area to the kitchen and bathrooms. This guide explores recommendations for seamlessly integrating digital cleaning management into your restaurant operations. These solutions have been

selected to simplify cleaning procedures, improve operational efficiency, and enhance your restaurant's position. Let's delve into the transformative potential of digital solutions in revolutionising your cleaning management practices, making a substantial contribution to the overall success of your establishment.

Recipe for success: Enhancing cleaning management – A five-step guide:

1. **Select the appropriate solution for your cleaning requirements:** To successfully implement a digital cleaning management solution in your restaurant, begin by assessing your cleaning needs. Identify the critical areas and tasks that require routine cleaning and maintenance. This should include various sections of your restaurant, such as the kitchen, dining areas, restrooms, and more. Once you have a clear understanding of your cleaning requirements, proceed to choose the right software for the job. Thoroughly research and select a digital cleaning management software or platform that not only aligns with your restaurant's needs and budget but also offers essential features like cleaning schedules, checklists, monitoring capabilities, and integration options. This step will lay the foundation for a more efficient and effective cleaning management system in your establishment.
2. **Onboard and customise your cleaning management solution:** In the second step, it is crucial to onboard the chosen solution in collaboration with the solution provider or their support team. This collaborative approach ensures that you receive guidance and support during the initial setup of the solution. Subsequently, customise the digital cleaning management tool to meet your restaurant's unique requirements. This phase not only involves the technical setup but also makes sure that the software can address your specific cleaning needs and schedules. Adequate configuration and tailoring of the tool will also guarantee that it smoothly integrates into your restaurant's operations, making it more efficient and effective in maintaining cleanliness and hygiene standards.
3. **Establish clear cleaning protocols and schedules:** This step is not dependent on the use of a digital solution. However, based on the features provided by the selected solution, you may be required to integrate your cleaning protocols into the system. If you already have these protocols in various formats, such as paper documents, or if you have not yet formally established them, this is the opportune moment to do so. These protocols entail the development of precise instructions for your staff, detailing when and how cleaning

tasks should be executed.

4. **Staff training:** Focus on providing thorough training to your staff in the use of the digital cleaning management solution and make sure that they are proficient in creating and following cleaning schedules, using checklists, and effectively utilising the monitoring features. Implement the solution in your daily operations, fostering a culture of cleanliness and accountability within your restaurant. Implement this transition methodically, incorporating trial and transition periods to facilitate your staff's adaptation to the new procedures. Maintain transparency throughout the process, as you may face some initial resistance to adopting these new digital methods.

5. **Continuous monitoring and improvement:** In the fifth and final step, establish a system for ongoing monitoring and improvement of your digital cleaning management solution. Regularly review reports, track progress, and seek feedback from your staff and customers regarding the system's effectiveness. Utilise this data to make continuous enhancements and refinements to your cleaning processes, ensuring that your restaurant maintains the highest standards of cleanliness and hygiene over time.



Explore the complete pathway, containing all the necessary information to implement the best practices outlined in this challenge, [located in the annex of this guidebook](#). In addition to the step-by-step instructions provided above, the pathway includes the benefits of its application, a thorough list of recommendations and prerequisites before initiating the implementation of the best practices, and a detailed description of the executed pilot experience.

Keep in mind that you can utilise the Digital Pathway Tool to identify and prioritise pathways based on your business objectives and current digitalisation status.

7.4.7 Pathway 7 – Digital Restaurant Tools: Implementing Technological Infrastructure

Technology is a fundamental pillar for restaurants and the catering industry in today's business landscape. Ensuring that all aspects of the business – from the kitchen to the dining area – are equipped with up-to-date technology

is crucial for success. Failure to do so can lead to operational challenges. A complete technological infrastructure that seamlessly integrates with all processes can enhance efficiency, reduce staff workload, and build trust with customers. In an era of fierce competition, a robust technological foundation distinguishes businesses, improves operations, and unlocks growth opportunities.

Most of the improvements implemented by restaurants require some form of technology. A restaurant's technology infrastructure includes an integrated system of technological components and solutions that support the operations and functions within a restaurant, such as computers, tablets, intelligent machinery, high-speed internet, and cloud-based digital tools. Furthermore, it also refers to a diverse array of components, encompassing POS systems, kitchen management software, reservation and guest management systems, online ordering platforms, inventory and supply chain management tools, payment processing systems, CRM software, and various other technologies. It is a holistic approach to utilising technology to enhance various aspects of the restaurant business, from FoH operations such as customer service and reservations to BoH functions like food preparation, inventory control, and financial management.

Restaurants should adopt the tools and technologies that can be tailored to suit their specific needs. Depending on

your unique characteristics, embracing a technological upgrade can lead to fewer challenges and greater resilience following the integration of these solutions. Get ready to delve into the world of technological possibilities as we explore how you can enhance your restaurant's tech infrastructure in this complete and comprehensive guide.

What Are the Recommended Best Practices for This Challenge?

- **BEST PRACTICE 13:** Implement a solid tech infrastructure in your restaurant ([page 168](#)).

We strongly recommend embracing these best practices for the following compelling reasons:

- **Establish the groundwork for all future developments:** Introducing technological infrastructure lays the initial foundation to digitise your restaurant. With a sturdy infrastructure in place, the incorporation of digital solutions becomes seamless. Beyond securing internet service and essential business devices, such as mobiles, computers, or tablets, the focus must be on enriching this foundation with applications and solutions that enhance your day-to-day operations.
- **Integrating every aspect and process of your business:** Every technological

integration in your restaurant leads to an enhancement in the connectivity among your processes. Interconnected systems pave the way for improved automation and efficiency, facilitating data compilation, and providing valuable information for informed decision-making.

- Revealing how advanced technology transforms the customer experience:** Surprisingly, every action within your restaurant, even measures undertaken in the back office, contributes to the overall perception of your business. The speed of service and the ease of booking a table influence customers' choice of returning. Going beyond the fundamental aspects of technology and digitalisation can serve as a distinctive selling point. Have you considered transforming your restaurant into a fully automated, robotic experience? It might be the key to creating a business that stands out as truly unique and appealing.
- Ensure the security of your data:** As you leverage digital tools, various risks emerge that demand attention. Therefore, it is recommended to make cybersecurity a top priority to safeguard not only customer data but also your business operations.

BEST PRACTICE 13: Implement a solid tech infrastructure in your restaurant

In the modern business landscape, it is evident that establishing a robust tech infrastructure, with a well-designed IT framework as the foundational cornerstone, is essential. This technological framework serves as the central nervous system to present vital business information, ranging from network reliability to cybersecurity measures and software integrations. Furthermore, it often forms the foundation upon which more sophisticated tech capabilities are built, including digital ordering systems, automated workflows, and streamlined data management. However, the significance of ensuring the correct tech basics must not be underestimated.

Recipe for success: Implementing technological infrastructure – A five-step guide:

- 1. Assess your needs:** Before diving into tech implementations, take the time to assess your restaurant's specific requirements. Identify areas where technology can make a difference, whether it includes streamlining orders, enhancing customer service, or improving internal operations. This information will help you prioritise and decide the solution you wish to implement. Consider your budget and prioritise the solutions that will have the most significant impact.
- 2. Choose the right tools (and providers):** Once you have identified

the areas for improvement, select the tools that align with your goals. They can be as straightforward as purchasing a tablet or a mobile phone or securing an internet service. In other instances, you might encounter new and potentially challenging technologies and software. In such cases, conduct thorough research and opt for reputable providers that offer user-friendly and scalable solutions. Make sure that these tools are tailored to meet your specific needs.

- 3. Incorporating integration into your business:** Verify that the selected tools can integrate seamlessly with each other. A cohesive tech ecosystem facilitates efficient data sharing, such as between your POS system, kitchen operations, and online ordering platforms. The goal is to establish streamlined workflows that enhance overall efficiency. While researching your tools and provider, employ this criterion to guide your selection process. Examine the additional challenges within this European project to specify the workflows and identify the tools that can be chosen to streamline these tasks.
- 4. Train your staff:** Training your staff is critical, as employees should be well-versed in the new systems to maximise their benefits. Many tech providers offer training resources, and some may even provide

on-site training for your team. A knowledgeable and confident staff is essential for a smooth transition to digitised systems. The shift to new processes and technologies may pose challenges by introducing new responsibilities and altering the routines of your staff. Hence, it is imperative to engage your staff throughout the entire process transparently and select employees who are most dedicated to embracing the change.

- 5. Continuous improvement:** Tech implementation is a continuous process. Collect feedback from your staff and customers about their experiences with the new technology and use this feedback to make necessary improvements and adjustments. Remaining current with technological advancements is equally essential for sustaining a competitive advantage and resilience within your business. This step is pivotal, as each new implementation of technology opens the door to enhanced processes, new automation, and the potential for business improvement.



Explore the complete pathway, containing all the necessary information to implement the best practices outlined in this challenge, [located in the annex of this guidebook](#). In addition to the step-by-step instructions provided above, the pathway includes the benefits of its application, a thorough list of recommendations and prerequisites before initiating the implementation of the best practices, and a detailed description of the executed pilot experience.

Keep in mind that you can utilise the Digital Pathway Tool to identify and prioritise pathways based on your business objectives and current digitalisation status.

scenario as customers increasingly prioritised convenience and easily accessible goods. While the specific adjustments required by individual restaurants may vary, it is evident that the demand for delivery and takeaway remains strong, especially in densely populated areas.

This challenge examines opportunities for restaurants to diversify their revenue streams by expanding their customer base through home delivery services. Notably, during the pandemic, some restaurants, in addition to offering delivery and takeout, also explored innovative avenues to generate income. These avenues included selling ingredient boxes for home cooking, catering, operating food trucks in open locations, and hosting workshops, among others. In this challenge, we will focus on best practices and strategies for successfully implementing and offering these services, helping restaurants adapt to the evolving market and thrive in these evolving times.

What are the recommended best practices for this challenge?

- **BEST PRACTICE 14:** New additional restaurant revenue with delivery and takeout services ([page 171](#)).

We strongly recommend embracing this best practice for the following compelling reasons:

- **You aim to align with evolving consumer behaviours:** The COVID-19 pandemic has accelerated shifts in consumer behaviours, as demonstrated by the heightened demand for home delivery and takeout services, among other notable examples. This evolution represents a fundamental change in the manner in which people interact with the food service industry. Even with the sense of normality returning after the pandemic, many customers still prioritise convenience and easy accessibility. Therefore, restaurants need to adapt to these changes. The shift in consumer behaviour is not limited to the pandemic's aftermath, as the desire for at-home dining experiences and the convenience of ordering food online are enduring preferences. Teleworking, for example, has become a prominent fixture in the lives of many individuals. As remote work and telecommuting continue to be embraced, the demand for convenient dining options remains high.
- **You need to increase your customer base:** You may find the need to expand your customer base for various reasons, such as intense competition in your local area or under-utilised dining spaces, thereby prompting the exploration of new revenue streams. If your culinary offerings and restaurant setup lend themselves to delivery without compromising food

quality, integrating delivery services can open new avenues for growth. This approach not only enables you to reach a broader audience but also ensures your establishment remains competitive in an ever-evolving restaurant landscape.

- **Diversifying revenue streams and staying competitive:** The introduction of delivery and takeout services diversifies a restaurant's income sources while broadening its customer reach, thereby contributing to financial stability, especially during uncertain or fluctuating demand periods. In this highly competitive food delivery landscape, adhering to best practices that address these demands is essential. By enhancing service quality, operational efficiency, and customer satisfaction, restaurants can distinguish themselves and thrive in a crowded market, securing a competitive edge.

BEST PRACTICE 14: New additional restaurant revenue with delivery and takeout services

The increase in food delivery and takeout reflects a shift in consumer behaviour, emphasising convenience and online platforms. This trend, fuelled by factors such as urban lifestyle changes and digital nomadism, highlights the crucial need for restaurants to incorporate

7.4.8 Pathway 8 – Delivery, Takeaway and Others: New Business Models and Revenue Channels

The COVID-19 pandemic accelerated changes in leisure, travel, and working habits. A notable surge in the demand for delivery and takeout services was observed during the pandemic, which led restaurants to adapt to this evolving

delivery services into their arsenal. Adapting to this shift is vital for staying competitive, reaching new markets, and meeting evolving consumer expectations in today's dynamic dining landscape.

Recipe for success: Implementing delivery and takeout services in your restaurant – A five-step guide:

- 1. Evaluate your current circumstances and determine the initial actions to undertake:** Assess your restaurant's readiness for this additional revenue stream, considering factors such as logistics, staff capacity, materials, kitchen capabilities, and other aspects outlined in this guide. Begin by contemplating simpler options, such as initiating restaurant pick-up services, conducting small-scale tests in nearby areas, and validating the preparedness of your restaurant for this venture.
- 2. Select the right delivery service:** Choose the most appropriate provider or solution for your restaurant. Only undertake this task if you are confident; otherwise, rely on experts and existing solutions. Research and assess potential delivery service providers, considering their reputation, delivery coverage, and fees. If you are unsure, seek advice from industry experts, or explore turnkey solutions for a seamless implementation of delivery and takeout services. If you choose to

manage it independently, make sure that your restaurant is equipped for increased order demand. Establish a user-friendly platform for order placement, ensuring quick acceptance and efficient kitchen management.

- 3. Prepare the menu and the ordering system, or onboard into the selected platform:** Ensure that your menu is tailored for delivery and takeout and consider items that travel well along with the packaging that preserves quality. Implement a user-friendly online ordering platform for seamless customer interactions. If you are handling your delivery, create an efficient process for order acceptance and kitchen management. Nonetheless, if you are partnering with third-party services, onboard smoothly into their platform, ensuring a cohesive and user-friendly experience for customers. You would need to input your menu items and prices onto the platform, along with essential business details, location, and other required information.
- 4. Implement a robust management system, conduct staff training, and carry out thorough testing procedures:** Implement a robust management system to streamline order processing, delivery coordination, and overall restaurant operations. Consider all the necessary technology to optimise

preparation, ranging from the POS system to kitchen displays. Provide comprehensive training to your staff, including kitchen personnel, delivery drivers (if you are managing in-house delivery), and customer service representatives. Ensure that they are well-versed in the nuances of the new delivery and takeout services, emphasising efficiency, quality control, and customer satisfaction. Conduct thorough testing of the entire system, from order placement to delivery, to identify and address any potential issues before the official launch. This step is crucial for a seamless and successful integration of delivery and takeout services into your restaurant operations.

- 5. Launch and monitor the service:** Execute your delivery and takeout services and closely monitor their performance. Ensure that your staff is well-trained and familiar with the management system. Keep a close eye on order processing times, delivery efficiency, and customer feedback. Continuously assess and refine your processes to enhance overall service quality and implement marketing strategies to promote your new services and attract a broader customer base. Lastly, stay agile and responsive to evolving customer needs and market dynamics.



Explore the complete pathway, containing all the necessary information to implement the best practices outlined in this challenge, [located in the annex of this guidebook](#). In addition to the step-by-step instructions provided above, the pathway includes the benefits of its application, a thorough list of recommendations and prerequisites before initiating the implementation of the best practices, and a detailed description of the executed pilot experience.

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7.4.9 Pathway 9 – Maximising Employee Potential: Managing and Motivating Restaurant Employees

In today's dynamic restaurant landscape, unlocking the full potential of your employees is pivotal to achieving success. It transcends being a mere necessity, since it serves as the

cornerstone for ensuring a superior dining experience, better operational efficiency, and high customer loyalty. Maximising your employees' capabilities indicates your commitment to excellence and innovation, fostering trust among customers. In an intensely competitive market, harnessing your employees' full potential sets apart your establishment, increases operational effectiveness, and enables sustainable growth.

Optimising employee management begins with the recognition that your human resources are the heart of your restaurant. By investing in training, motivation, and clear communication, you can empower your employees to provide top-tier service, adapt to evolving industry trends, and infuse their unique talents into your establishment. This guide explores the comprehensive strategies and best practices for unleashing your restaurant's employee potential, enhancing your customer service, and securing a lasting position in the culinary world.

What Are the Recommended Best Practices for This Challenge?

- **BEST PRACTICE 15:** Automate employee management and performance ([page 175](#)).

We strongly recommend adopting this best practice for the following compelling reasons:

- **Efficiency at its peak:** Creating a schedule can be quite a demanding task. Automating this administrative task can drastically save time that can be spent in other more relevant areas. This type of solution can work dynamically, making adjustments depending on your employees' needs or peak business hours.
- **Every minute counts:** Having a digital employee management system can increase the accuracy of tracking the working hours. This will reduce payroll errors, ensure fair compensation, and ascertain compliance with the labour laws and policies that apply to your business.
- **Improved communication:** Communication in a restaurant is key to making sure that everyone is satisfied. Feeling heard when you have a problem or receiving open and clear messages from the management team will improve the well-being of your employees and ensure smooth operation.
- **Easier training and career development:** Digital platforms can be paramount while training staff. Having an archive with all the information a new employee requires will reduce the load on management and co-workers and accelerate the onboarding process, thereby reducing the impact on day-to-day operations. This kind of tool can also help with

career development, as it will help detect your employees' areas of improvement or strengths.

BEST PRACTICE 15: Automate employee management and performance

Navigating the complexities of employee management and maximising performance efficiency have become pivotal tasks in today's dynamic work landscape. Automating these crucial facets of workforce management is no longer optional but strategically imperative. By leveraging cutting-edge technologies and innovative systems, businesses can revolutionise their approach to employee management, propelling productivity, streamlining operations, and fostering a more engaged workforce.

Recipe for success: Implementing technological infrastructure - A five-step guide:

1. **Assess your needs:** A plethora of solutions can have an impact on different areas of your restaurant. Take time to assess your requirements, identify the areas where the intervention will have the most impact, and choose the solution that will cover those best. You can choose to address issues in scheduling, internal communication, payroll assistance, or even employee satisfaction and

performance. Furthermore, consider your budget when deciding on the number of areas you wish to target.

2. **Start small and slow:** As this move will have a direct impact on your employees, you must start making changes in a small area and implement the solution slowly to make sure that there is no drastic change in how they operate. This will reduce the resistance to adopting new tools and will make the transition smoother.
3. **Make sure you have the basic infrastructure:** To implement this practice, you must have at least basic digital tools to make the solution work. You will require at least a computer to create and manage all the information. By using additional tools, such as tablets or mobile phones, you can expand the functionalities and create a better environment for the technological solution to work.
4. **Staff training:** Training your staff is crucial for the success of this technological integration. Employees must undergo a testing period to learn how to use the new system and interpret the new data. Some solution providers offer training with their packages, sometimes even on-site. Depending on the employees' initial level of digital ability, make sure you leave enough room for them to become proficient with the new system.

5. **Continuous improvement:** Every new tool or process implemented in your business has an adaptation and improvement phase. Make sure you are constantly collecting feedback from your staff and checking whether the new approach is improving your metrics. Use it to make adjustments and improvements. Once you are satisfied with the first implementation, utilise the information to stay up-to-date and introduce new processes

or areas into the equation to keep improving your business.

7.4.10 Pathway 10 – Mitigating Food Waste in the Restaurant industry: A New Approach to Sustainability and Cost Savings

Food waste is a major challenge in the restaurant industry from an environmental as well as financial perspective. In fact, it is estimated that the average restaurant generates thousands of euros of food waste each year, resulting in significant costs and inefficiencies. To address this pressing issue, this challenge focuses on mitigating food waste in your restaurant through sustainability practices that not only benefit the environment but also contribute to substantial cost savings.

What Are the Recommended Best Practices for This Challenge?

- **BEST PRACTICE 16:** Reduce food waste in your restaurant ([page 177](#)).

We strongly recommend embracing this best practice for the following compelling reasons:

- **Holistic approach to sustainability:** Adopting best practices on food waste reduction signifies your restaurant's

dedication to a complete approach to sustainability. By identifying and implementing diverse methods to tackle food waste, your establishment can actively contribute to the larger initiative, thereby promoting environmental responsibility within both the industry and the global community.

- **Financial impact and cost savings:** Addressing food waste is not merely an ethical concern; it is also a pragmatic decision. Implementing these best practices can result in substantial cost savings by reducing the quantity of wasted ingredients. This leads to a positive influence on the financial well-being of your business, fostering increased profitability. The financial impact is derived from lower purchases on food procurement, additional revenue generated by repurposing food that would otherwise be discarded, and decreased expenses related to waste management.
- **Reputation and customer loyalty:** As consumers become more aware of the environmental impact of their choices, a restaurant that proactively addresses food waste not only aligns itself with sustainability goals but also positions itself as a socially responsible entity. This commitment to ethical business practices plays a vital role in establishing a positive reputation and has the potential to foster strong consumer loyalty.

- **Regulatory compliance:** This practice goes beyond being merely a beneficial practice for cost reduction or a commitment to the environment and your customers. Countries within the European Union are now enacting measures and laws to minimise food waste as part of a broader initiative. Embracing these best practices can position you ahead of potential regulatory changes and make sure that you have already made significant progress.

BEST PRACTICE 16: Reduce food waste in your restaurant

The restaurant industry's impact on food waste is substantial, with Eurostat's estimates placing annual generation at a staggering five million tons, comprising approximately 12% of the European Union's total food waste. This not only has direct environmental implications but also results in a significant loss of resources and revenue for the industry.

Addressing food waste not only involves reducing the amount of food that goes to waste but also improving overall systems and processes. By taking a holistic approach, it is possible to reduce food waste while also increasing efficiency, saving resources, and improving profitability. Strategies, such as enhancing inventory control and streamlining supply chain operations, measuring and tracking uneaten food, and finding alternative uses for surplus food through repurposing or



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Keep in mind that you can utilise the Digital Pathway Tool to identify and prioritise pathways based on your business objectives and current digitalisation status.

reselling, hold promise in addressing this pressing issue. Nevertheless, food waste is not a process that can be digitised; rather, it is a goal or result to be achieved. Therefore, any solution that aims to optimise the processes that lead to a reduction in food waste could be considered a best practice to achieve that goal.

Three key principles for food waste reduction

We will discuss three principles, each serving as a cornerstone in the transformative journey toward sustainable culinary practices and responsible food waste management:

- **Prevention:** This involves implementing proactive measures at various stages of the food supply chain to curb waste before it occurs. From meticulous inventory management to strategic menu planning, the emphasis is on foresight and careful consideration to prevent excess production and spoilage.
- **Redistribution and recovery:** This principle focuses on the efficient use of surplus food by redirecting it to those in need rather than letting it go to waste. Collaboration with local food banks, charities, or community organisations allows restaurants to redistribute excess but still viable food items. Your kitchen and staff also have the opportunity to showcase creativity

by crafting dishes beyond the regular menu. This approach allows for the utilisation of ingredients that require immediate attention due to impending expiration or spoilage. These strategies share a common goal of maximising the use of every ingredient before it is necessary to discard it.

- **Recycling:** This approach involves repurposing food by-products, such as kitchen scraps and leftovers, to minimise environmental impact. The redirection of food waste from landfills can be achieved by employing composting or other environmentally friendly disposal methods. In essence, while the food may be unusable for its original purpose, it can serve as a less detrimental alternative in some capacity.

Note that these three principles follow a linear progression or hierarchy: prevention addresses the issue before it occurs, redistribution is the real-time response when excess arises, and recycling becomes the solution when no other alternatives are available.

Strategies to minimise food waste:

In this list, we present solutions and strategies aimed at minimising food waste in your restaurant. We prioritise the solutions that are the easiest to implement, considering both the level of effort and the initial financial investment required. This ranking is aligned with

the potential impact of each strategy on your business. Essentially, we begin with the simplest strategies that may have a smaller impact on the overarching goal of reducing food waste.

The order of strategies aligns with your restaurant's operational process, spanning from supplier relations to the departure of diners from the premises. Initially, you will find strategies related to the reduction of food waste after it is served at the table, gradually progressing to the commencement of operations, kitchen practices, and the broader supply chain.

To enhance clarity, the order mirrors the classification of principles discussed earlier. We begin with strategies falling under the "recycling" category and conclude with those categorised under "prevention". This systematic arrangement facilitates a holistic approach to strategies to implementing strategies for reducing food waste in your restaurant's operations.

- **Development of procedures for the recycling of organic waste, composting, cooking oil recycling, animal feed, and similar strategies:** This best practice, while not directly contributing to the reduction of food waste, presents a valuable opportunity to repurpose what would otherwise end up in a landfill. Composting is the decomposition of organic waste into nutrient-rich

compost, which can subsequently be utilised to enhance soil fertility or sold to local farmers and gardening enthusiasts. Distributing surplus food as animal feed, ensuring the proper recycling of cooking oil, and exploring similar innovative strategies constitute a basic approach to sustainable waste management within your facilities. Beyond being environmentally responsible, these practices may also yield profits, considering the potential for selling opportunities.

- **Alternative uses for surplus food and food donation:** Finding alternative uses for surplus food can also play a significant role in reducing food waste. Food recovery programs, such as food banks and soup kitchens, can redistribute surplus food to those in need. Furthermore, food that remains safe for consumption but does not meet aesthetic standards can also find a new purpose through donations to organisations dedicated to providing food assistance. Additionally, unconsumed restaurant-prepared food can be extended to new customers through intermediary solutions, actively working to minimise waste in the process.
- **Optimised quantities and portion sizes:** Precision in portioning is essential, as some dishes may feature excessive quantities that lead to uneaten leftovers, especially with items such as potatoes and

side salads. This surplus can prove to be counterproductive, leading to inefficient ingredient utilisation and potentially overwhelming customers with oversized servings. Introducing a variety of portion choices and alternative side options can effectively address this issue. Consider offering smaller portions of standard menu items with the flexibility for guests to request refills, ensuring that diners receive precisely what they desire while concurrently helping restaurants prevent unnecessary waste.

- **Menu design:** Considering the menu as a cohesive entity consciously crafted to share common ingredients, preparations, and processes empowers a restaurant with the mindset required to curtail waste at its source: the kitchen. Leveraging various parts of a single ingredient across multiple menu items allows establishments to optimise resource utilisation. It is crucial to impart training to all new culinary team members in the art of streamlining food preparation, adopting batch cooking or similar approaches, adhering to specific portion sizes, cross-utilising ingredients, and repurposing food trim and excess items. This strategic approach is intricately related to menu engineering, as defined in Challenge 3. As highlighted, menu engineering is a technique aimed at refining pricing strategies in restaurants by analysing menu items for their

popularity and profitability before making adjustments accordingly. A menu designed to minimise waste and adjusted based on supply chain prices effectively achieves both of these objectives.

- **Food waste measuring and tracking solutions:** Measuring and tracking uneaten food is crucial to understanding and addressing the problem. By monitoring the amount of food that is thrown away, you can identify areas where waste is prevalent and implement targeted solutions. For instance, a restaurant may find that a certain dish is consistently going uneaten and can adjust portion sizes or remove it from the menu. The act of measuring can often reveal an existing problem that needs to be addressed. In many cases, this process of assessment can help to identify areas for improvement and provide direction for how to do so. By taking the time to analyse and assess a situation, it is easier to discover any underlying issues and tackle them accordingly.

Furthermore, it may prove helpful to explore waste tracking systems that record essential details such as the weight and source. This information can be utilised to improve your kitchen operations, focusing on areas such as reducing prep trim and overproduction. To maximise the insights gained from this task,

quantify the results in terms of money to comprehend the financial impact of the waste, including wasted ingredients or unsold dishes. This perspective will offer a distinct and more tangible understanding of the outcomes. Smaller restaurants have the option of tracking waste using traditional methods, such as pen and paper or a spreadsheet (preferred), serving as an alternative to investing in specialised software.

You can also employ various methods for tracking food waste, ranging from simpler approaches to more sophisticated systems. Visual bin observations, involving the capture of waste through photos, offer straightforward data collection. Food waste audits provide a more detailed analysis, allowing tracking based on source, dish, or weight. Specialised kitchen stations, equipped with specific hardware and sensors, facilitate a more targeted measurement of food waste in distinct categories. For a scaled system, advanced food waste monitoring provides a holistic view of the entire waste management process. These approaches cater to different levels of detail and complexity, allowing you to choose the method that best aligns with your needs and available resources.

- **Inventory control and supply chain optimising solutions:** Implementing robust inventory control and

optimising supply chain solutions may be a pivotal strategy in the management of food waste within the restaurant. By maintaining meticulous control over inventory levels, you can minimise overstocking and prevent excess items from reaching their expiration dates. Simultaneously, optimising the supply chain ensures a streamlined and efficient flow of ingredients, reducing the chances of spoilage or waste due to logistical inefficiencies.

Before ingredients even reach the kitchen, consumption forecasts need to be assessed to understand the popularity of specific dishes, which can lead to more accurate order predictions for suppliers. As previously discussed in [Pathway 3 – Intelligent Warehouses: Towards Optimised Food and Stock Tracking](#), the implementation of a digital inventory management system not only reduces errors but also optimises resources. This system aids in identifying ingredients that should be prioritised for use to prevent unnecessary disposal. Furthermore, as highlighted in [Pathway 5 – Business Insights: Gathering and Using Data \(Data and Market Intelligence\)](#), the integration of a POS system allows for the identification and collection of data on dish consumption. Both of these tools serve as invaluable assets, providing insights that empower restaurants to proactively address and minimise

food waste right from the outset. It is necessary to remember that any information that enhances your ability to make better forecasts and plans, such as reservations (as explored in [Pathway 2 – Facilitating Booking: Easy Reservation Management](#)), directly influences the issue addressed in this challenge.

Finally, we strongly recommend fostering close collaboration with your suppliers and striving for increased flexibility in your ordering process. Emphasise partnerships with local suppliers, cultivating relationships that enable negotiation and the ability to place orders promptly as required, thereby avoiding risks associated with excessive inventory. This strategy ensures a more agile and responsive supply chain tailored to the unique needs and demands of your restaurant.



8. Results of Testing and Feedback from Restaurant Customers

We gathered input from restaurants that underwent digital transformation by implementing digital solutions within their operations.

In this guidebook, we have previously elucidated success stories regarding the integration of digital solutions within the restaurant sector. Presently, our objective is to complement these narratives with an additional section that delineates the outcomes observed in the months following the pilot and its full implementation in the restaurant.

The discernible impact of introducing these tools manifested within the relatively concise pilot durations. To ascertain the enduring effects, establishments that participated were approached and solicited to complete a subsequent assessment form approximately 2 to 3 months later. While not all establishments responded, those that did conveyed positive perspectives.

Among the 10 restaurants participating in the pilot experiences, four took the time to share their insights through the impact form. It's important to acknowledge that these establishments are currently operating at full capacity, with a primary focus on their core restaurant functions. Despite the challenges in finding time for supplementary activities, the responses from these four participants provide valuable perspectives, shedding light on the positive impact and success of the implemented tools within the dynamic context of their bustling operations.

The first topic discussed was the continuity and impact of the solution itself. All four restaurants unanimously affirmed

their ongoing utilisation of the tool for various reasons:

- The solution improves the workload or lowers the complexity of the tasks,
- It provides more information to the customers,
- It adds new value to the customers,
- It helped to increase sells,
- It enables a shift in focus towards more critical tasks.

In this regard, all four restaurants affirm that the implementation of the tool has had a positive impact on their operations and outcomes. Despite these favourable results, none of the restaurants have expanded their initial implementations. However, three out of four express confidence in their intention to introduce new tools.

Another crucial aspect in the digitisation process involves the impact on employees. The restaurants engaged in the pilots reported varying experiences in this regard. For some, the implemented solution had virtually no impact on their employees, affecting neither their roles nor tasks significantly. Others encountered challenges during implementation, attributed to either the complexity of the tool or the learning curve associated with new technology. Conversely, the last group found the

process to be straightforward for their staff. Regardless of the initial differences, the implementation of these tools has uniformly contributed to enhancing the efficiency of processes and tasks, benefiting employees across the board.

The final aspect examined in this survey focused on the impact on customers. Given the challenge of directly obtaining feedback, restaurants were queried about the observed effects on their clientele. While making broad generalisations is challenging due to the varied processes and unique experiences offered by each restaurant, a common theme emerged. The overall consensus is that every implemented tool has contributed to enhancing how customers interact with and derive value from the business. Notable improvements include reduced table booking times, enhanced context and information directly available on the website and the convenience of ordering from home. Consequently, three out of four restaurants reported experiencing positive changes in customer satisfaction as a result of these enhancements.

Principal conclusions and findings from Impact Survey:

Aggregating the feedback results, this list encapsulates the most pertinent lessons gleaned:

- Implementing digital tools usually help making process faster and easier, improving the workload (both from

time and complexity) and the business outcomes.

- Employees play a significant role when implementing tools as they are usually the ones operating them most of the time.
- Even digitalising processes that focus on improving internal management can impact the customer experience.
- It is generally encouraged for restaurants that have already implemented one digital solution to adopt additional ones.
- Once a business can see the impact and benefits of digitisation, it is easier for them to open up to digitising new processes and implementing more tools.



9. Policy Recommendations and Suggestions

This section covers the policy recommendations and practical suggestions aimed at steering the digital landscape of restaurants, fostering both growth and inclusivity.

In this guidebook, we have compiled strategies to support small and medium-sized restaurants within the European Union (EU) as they embark on their digitalisation journey, tailored to their specific needs and current digitalisation status. Our approach involved a thorough sector analysis by experts and stakeholders, as well as practical experience from implementing digital products or solutions in restaurants through an open call, which garnered interest from more than 200 participants. Throughout this pilot project, we identified several overarching strategies that went beyond individual establishments and spanned across sectors, potentially hindering the digital implementation of specific processes. In essence, there are specific areas that necessitate decisive action from local and European public administrations. These were identified by insights and evidence gathered during the pilots, to pre-emptively address obstacles, implementation failures and setbacks in the digitalisation processes of restaurants.

The first point we would like to address pertains to digital solutions as a whole: it has been challenging to find Europe-specific solutions, meaning those oriented and designed for all countries within the Union collectively. While all the solutions we analysed meet the minimum requirements set by European legislation, these solutions tend to be finely tuned to the specific circumstances of each country. What does this imply?

It means that restaurants will have access to solutions tailored to their own countries—solutions that can be adapted to their needs and align with the specific circumstances in that country. This inevitably leads to the possibility that a restaurant opting for Europe-specific solutions, but not solutions tailored to its country may encounter differences in the application of the solutions within the country. This aspect makes it easier to find tailored solutions in countries with more resources and population (such as Germany, France, Italy and Spain), while countries with fewer options for digital solutions may be left with less customised alternatives and encounter compatibility issues.

This statement requires clarification while discussing the absence of Europe-specific solutions. All identified solutions—those from the open call and met the requirements for participation—were indeed Europe-specific solutions. However, the specifics of their functionalities and their application in the day-to-day operations of businesses, particularly that of restaurants, required some adaptation. This is because the strategy employed during the pilot project involved pairing different home countries of restaurants with solution providers to ensure they were not the same. This adaptation led us to realise that while the solutions were designed for use by any restaurant in the EU, not all countries will benefit from their functionalities optimally and comprehensively. Hence, in this

section, we will outline all the issues, insights and proposed recommendations for evaluation by European institutions.

Adaptation to Local Legislations

Many processes within the typical restaurant workflow are influenced by the national laws that apply to the restaurant. As mentioned earlier, this implies that digital solutions incorporate the changes relevant to their country of origin (and, in any case, those that may contribute the most to their profitability) into their applications. Legislative changes affect matters related to employment laws and other legal aspects such as taxation, labour, health and safety regulations and more.

In some parts, adapting to local legislations is crucial for legal compliance and for the smooth and efficient operation of the restaurant. This involves staying current with changes in employment laws, wage regulations, and any other legal aspects that may impact the restaurant industry. Additionally, digital solutions should provide features that facilitate easy adherence to these laws, helping restaurant owners and managers navigate the complexities of local regulations without hindering their day-to-day operations.

In our recommendations to European institutions, we underscore the significance of establishing a framework

that fosters digital solutions in keeping pace with and adjusting to dynamic local legislations. This framework aims to facilitate swift adaptation to local legislation, ensuring that the entire sector can derive maximum benefit from these solutions. Such an approach will significantly contribute to the overall success and effectiveness of digitalisation initiatives within the restaurant industry across diverse European countries. Notably, this will be advantageous for solution providers, offering them a more favourable framework for implementing all local regulations.

The following anecdote will shed light on the importance of country-based customisation for digital solutions. One of the solutions selected in the open call faced the challenge of implementing the solution in a country with a different time zone. This altered the pilot, as it necessitated development to enable time zone adjustments within the application. While this example doesn't involve local legislation, it highlights a territorial aspect. A solution without this feature can pose challenges for restaurants—in other countries with similar territorial circumstances—that aim to use a European application.

Normalised Data Transfer

Data has become an indispensable component in many industries and businesses. The restaurant sector, less digitised than some others, has

yet to reach a point of widespread data handling, although we have observed, analysed and evaluated solutions that incorporate data-driven learning for improved decision-making. The upcoming months and years will witness increased digitisation in the restaurant industry as establishments across the EU adopt new digital solutions.

Now, we want to highlight a pilot test during this project. It focused on a solution digitising the supply chain and inventory management processes in a restaurant. Digitisation has implications for various aspects of restaurant operations and can propel the business into a significant digital transformation. However, the challenge arises from the starting point of digitisation, not so much for the restaurant (which introduced the digital solution for this purpose) but for the suppliers, who also need to digitise their data for seamless transmission in appropriate and standardised formats.

In this specific case, the restaurant must input its regular suppliers and ingredients into the system to maintain an inventory record and digitise recipes. The issue emerges when restaurants have to input data for their regular suppliers into the system and initiate communication with them, requesting that invoices, receipts and other documentation be digitised and in standardised formats to ensure smooth functioning. This may not be the case for many suppliers yet to begin their digitisation journey.

This situation implies that digitisation not only affects the pace of the restaurant's digitalisation efforts but also relies on stakeholders and other interested parties reaching a minimum level of digitisation to avoid creating digital gaps. In this scenario, restaurants may demand that suppliers have digitised systems and adhere to a common standard, facilitating standardised information transfer. The goal is to have all suppliers and restaurants, whether or not they collaborate, speak the same language and uniformly transfer information. We are specifically addressing the context of restaurants within the scope of this project, but this issue may be relevant to other sectors facing similar challenges in different situations.

Equal Digitalisation Opportunities

The ability of restaurants to digitise may not be the same depending on the country of origin. This means that we can encounter the EU digitising at different speeds. Some countries may have more resources to do so, while others, although eager to embark on the path of digitisation, may lack the proper tools to achieve it. In the pathways, we have made it clear that one of the initial steps for successful digitisation, after conducting the appropriate self-assessment, is to choose the solution that best suits the restaurant. This implies that there should be a wide variety of solutions, allowing restaurants to choose from

several types based on factors such as functionalities and features. This diversity in available solutions is crucial in catering to the varying needs and capabilities of restaurants across different countries. The digitalisation journey should not be hindered by limitations in options. Rather, it should be a dynamic process where each restaurant can select a solution tailored to its unique requirements.

Moreover, the disparities in resources among the EU member states highlight the importance of fostering an environment that promotes inclusivity in the digitalisation landscape. Efforts may be required to bridge the gap by providing support mechanisms, such as educational programs or financial assistance to those establishments that may face challenges in adopting digital solutions.

The financial aspect underscores a stark contrast among countries, particularly concerning the affordability of digital solutions. What may be a reasonable subscription fee of 100 euros per month for a restaurant in Germany or France may pose a significant challenge for establishments in other countries. As emphasised, a one-size-fits-all European solution may only be feasible for a handful of countries, exacerbating the financial hurdles for others in embracing digital solutions.

In any case, we advocate for European institutions, in addition to member

states, to promote equal opportunities for digitisation, irrespective of the size or location of businesses, to ensure they have access to necessary resources. These resources encompass financial aspects as well as education and training— including facilitation of implementation through employees by instituting education and training programs on digital tools, for instance. Moreover, standardisation and normalisation of frameworks are crucial. They involve the development of standardised frameworks and guidelines for digital solutions to guarantee compatibility and accessibility for businesses of all sizes. Collaboration strategies and knowledge exchange are equally essential, encouraging learning across different sectors and regions. This enables companies to glean insights from each other's experiences, discover best practices and collectively address challenges related to digitisation.

In the broader context, a harmonised approach to digitalisation within the EU ensures that the benefits are widespread and not concentrated in a few economically advantaged countries. This aligns with the principles of unity and collaboration, where each member state contributes to and benefits from the overall progress.



10. Guidebook Conclusions and Prospects for the Future

This section encompasses all the aspects defined and explained in this guidebook, to facilitate future updates and reviews.

To summarise, this guidebook is a complete resource developed by the European Union (EU) to support the digital transformation of small- and medium-sized restaurants across the EU. The guidebook is part of a pilot project initiated by the European Parliament and commissioned by the Directorate General of Communication Networks, Content and Technology (DG CNECT) of the European Commission. The project aims to develop and promote digital tools for SME restaurants across the EU, focusing on three key topics: changing leisure and travel behaviour, new ways of working and the sustainable management of food.

In a way, we can summarise the content of this guidebook as follows:

- It provides a brief overview of the current state of the restaurant industry.
- It gives insights into which aspects of their business processes can restaurants digitise, showcasing existing digital solutions and outlining the benefits of digitalisation.
- It focuses on the sector's 10 challenges and presents a complete list of industry best practices.
- It explains how to apply these proven best practices within actual restaurant settings, utilising existing market solutions and yielding valuable insights and guidance for restaurants

seeking to digitise their operations.

- It contains a detailed explanation of how to integrate these best practices into businesses through 10 pathways for restaurant digitalisation.
- It identifies market gaps, which refer to solutions not yet available for certain restaurant challenges, and provides experts, entrepreneurs and institutions with information on how to begin developing these solutions.
- It recommends European institutions to continue supporting digitalisation and, importantly, suggests legislative measures that can ease the digitalisation process for the sector and relevant stakeholders.
- It provides an overview of the future of the industry, emerging trends and a definition of the kind of restaurants we might encounter in the future.

In summary, the RESTwithEU Guidebook aims to underscore that digital transformation is not just an advantageous strategy for individual restaurants and the sector at large. It is also imperative for the restaurant and services industry to enhance resilience against adverse effects and foster sustainable prolonged growth.



The project had the objective of concentrating on three key themes crucial for the digitalisation of restaurants: changing leisure and travel behaviour, new ways of working and the sustainable management of food. The restaurant and hospitality sector faced substantial repercussions due to the pandemic, impacting people's mobility and imposing health restrictions that hindered visits to leisure establishments or travel between countries and territories. The immediate changes observed had the potential to instigate significant transformations: shifts in the travel behaviours of tourists, a rise in remote work leading to fewer meals and lunches in office settings and

meetings, and a heightened need for businesses and institutions to address the issue of food waste in restaurants.

These new behaviours represented, and continue to represent, a necessity for restaurants to confront, anticipate and define new strategies to continue attracting customers and providing their services. The ability to proactively respond to these shifts will be critical for restaurants to thrive in the evolving post-pandemic environment, fostering resilience and maintaining a competitive edge in the industry.

In that sense, the digital transformation in small and medium-sized restaurants in the EU provides a toolkit for enhancing operational efficiency, streamlining customer interactions and staying abreast of evolving market dynamics. Embracing this transformation equips restaurants with the tools necessary to navigate current challenges and to proactively anticipate and adapt to future shifts in consumer behaviour, industry trends and technological advancements. It serves as a strategic imperative for these establishments, fostering resilience, sustainability and competitiveness in an ever-changing business landscape. As outlined in the document, the digitalisation of restaurant processes encompasses the following benefits:

- **Increased efficiency, reduction of costs and improved margins:** Leveraging digital tools optimises

back-end processes, streamlines workflow and reduces operational costs, ultimately enhancing restaurants' profit margins.

- **Improved customer experience and satisfaction:** The integration of digital platforms transforms the dining journey for diners, from better and easier online reservations to personalised recommendations and facilities in payment, elevating overall customer satisfaction and fostering brand loyalty.
- **Operational adaptability:** Digitalisation grants restaurants the agility and ability to swiftly adapt to dynamic market trends, facilitating menu modifications, promotional strategies and operational adjustments in direct response to changing consumer preferences or potential supply chain challenges.
- **Employee satisfaction:** Implementing digital solutions boosts operational efficiency and contributes to employee satisfaction by automating routine tasks, allowing staff to focus on more meaningful aspects of their roles and facilitating their daily activities.
- **Business resilience:** Embracing digital strategies equips restaurants to navigate unforeseen challenges and prepare for external factors, enabling them to adapt to the ever-changing dynamics of the world and

the restaurant sector.

- **Better knowledge of the restaurant business:** Harnessing digital analytics provides restaurant owners with valuable insights into customer behaviour, market trends and operational performance, empowering informed decision-making for strategic business growth.
- **Reduction of food waste:** Digital tools enable precise inventory management and demand forecasting, effectively minimising food waste and contributing to sustainable practices, aligning restaurants with environmentally conscious operational standards.

Hence, the primary goal of this project was to identify and prioritise 10 challenges that could exert the most substantial influence on restaurants throughout their digitalisation journey, encompassing the best practices identified for the sector. These 10 challenges are a response to the current situation, as assessed during this project. However, times are evolving rapidly, and technological changes do not wait for any sector to adapt and progress. The year 2023 marked the beginning of the era of generative artificial intelligence, which, according to experts, could have an extraordinary impact on the daily operations of many industries. Digitalisation and technology have the potential to alter the status quo at any

moment, rendering some of the insights presented in this guide obsolete and necessitating periodic updates.

In this manner, the guidebook highlights ten pivotal challenges that restaurants may currently encounter on their path to digital transformation:

1. Digital presence connecting with dinners
2. Understanding customer behaviour facilitating booking and reservation management
3. Optimising food and stock tracking
4. Improving table service
5. Gathering and using data
6. Ensuring food safety
7. Implementing technological infrastructure
8. Adapting to new business models and revenue channels
9. Managing and motivating employees
10. Mitigating food waste.

However, this does not mean that in a few years, these challenges will still be relevant. They will have to be modified in the same way as has been done during this project. New best practices in restaurants will have to be tested

and continue to provide knowledge, information and support to the EU's restaurant SMEs.

Essentially, this document captures the present landscape to streamline the digitalisation of restaurants within the EU. Nevertheless, it unquestionably requires continuous efforts, including identifying novel best practices, tracking the evolution of current implementations in restaurants (utilising metrics such as the adoption of digital tools surveyed by Eurostat and other indicators) and maintaining an outlook on emerging trends that might influence the sector. The objective is to formulate strategies that proactively anticipate these changes.



11. Future Trends

To continue advancing the pathways and digitalisation strategies for SME restaurants in the EU, it is crucial to keep a vigilant eye on emerging trends that may impact the sector.

Within the scope of this pilot project, the primary emphasis has been on fortifying the resilience and digitalisation of the restaurant industry. Nevertheless, the initial research phase brought to light a multitude of topics with profound implications for the HORECA sector. We utilised this information to formulate strategies and pathways that EU restaurants can implement at present.

As mentioned in the last point, to continually refine these pathways—whether for future updates or the creation of new ones—it is essential to closely monitor emerging trends that could influence the sector. This proactive approach aims to anticipate any actions that might facilitate restaurants' adaptation to new changes. This chapter aims to provide a succinct overview of these topics—considered essential for future exploration or potential avenues for the project's next iteration. These insights may serve as a base for understanding areas that may warrant further attention or inclusion in subsequent phases of this European initiative.

These trends are derived from strategies initiated by the Commission and European and supra-European organisations. Many of these strategies could potentially impact the HORECA sector when translated into specific policies and implemented.

Data Spaces

One of the main topics that the European Commission is already pushing forward, is the data spaces. This European strategy aims to create a single market for data that will ensure Europe's global competitiveness and data sovereignty. Common European data spaces will ensure that more data becomes available for use in the economy, society and research while keeping the companies and individuals generating the data in control.

This strategy can benefit the industry as a whole—it could help identify trends that could improve the reaction and response to certain crises or problems and a way to start standardising the data used in businesses. Hence, connectivity and digitalisation of certain areas (as in the inventory or provider purchases) could be addressed easily.

Food Security, Availability and Sustainability

The EU is carrying out several strategies regarding food. Investing in coordination to ensure food is available when a crisis like the Ukrainian invasion happens and improving the quality and sustainability of the food system and agriculture or reducing food waste are some of them. These topics must be approached with a wide optic view of the subject as they affect and involve a huge variety of actors and restaurant SMEs are part of them.

These strategies, except food waste, might not directly impact the restaurants (although depending on the directions, they might), but they could have huge indirect effects. For example, more sustainable or ecologically made food may need better preservation techniques or just stay fresh for less time. A specific food item might not be available or could increase the price as “0 km” food is prioritised. Having an eye on this area to assess the impact of those strategies will be key to being able to react on time and reduce the risks.

Workers' Conditions

The last strategies that we will introduce in this chapter are related to the workers within the EU. More transparency in the workers' conditions, better work-life balance, pay transparency and better wages or social rights like social inclusion or equal opportunities are some of them.

As well known that the HORECA sector does not always offer better conditions for the workers. Slim profits and longer working hours than most businesses are usually the most impactful contributors to such conditions. These strategies, which are well intended to improve the conditions of the workforce, will have a big impact on the restaurant industry. It will be necessary to follow very closely where and how they are being implemented, as it might require the introduction of new processes or tools to accommodate new laws. These laws will need to be

even more efficient to reduce costs and increase profits or even change business models to survive bigger changes in employee-company relationships.

Sustainable Development Goals

The 2030 Agenda for Sustainable Development, adopted by all United Nations member states in 2015, is composed of 17 sustainable development goals (SDGs). The SDGs are not a strategy as such. Rather, they represent an overarching objective to achieve. The SDGs have become a guiding force for industries worldwide. Despite everyone facing them with different efforts and tactics, it is clear that these goals will impact the HORECA sector as it is a pivotal player in the global economy and stands at the intersection of several of these goals.

The SDGs will work as a framework for restaurants, inspiring them to align their practices with principles of environmental sustainability, inclusive business models and community engagement. They will also shape the environment around them, defining new challenges or strategies to follow.

In other words, the development and fulfilment of these objectives, by various organisations and entities, may lead to regulations, policies, actions to be implemented or other measures. The aim is to achieve compliance with the 17 SDGs, leading to better outcomes for restaurants and the HORECA sector.

These are some of the key trends that could impact the industry in the short and medium terms. Therefore, any advancements in these areas can influence the digitalisation strategies outlined in this guidebook. As previously explained, every digitalisation strategy must consider the unique circumstances of each restaurant (including aspects such as its context, location and past efforts). However, it remains exposed to changes that may occur in the industry, in regulations and external factors such as pandemics, wars and other external actors. Therefore, we emphasise the importance of closely monitoring the current trends to continue supporting restaurants in achieving the defined objectives of this project: making the sector more digital, resilient and sustainable.



References

Abidi N., El Herradi, M. & Sakha, S. (2022). Digitalization and Resilience: Firmlevel Evidence During the COVID-19 < <https://www.imf.org/en/Publications/WP/Issues/2022/02/18/Digitalization-and-Resilience-Firm-level-Evidence-During-the-COVID-19-Pandemic-513169>>

Acemoglu, D., Autor, D., Dorn, D., Hanson, G. & Price, B. (2014). Return of the Solow Paradox? IT, Productivity, and Employment in US Manufacturing. *American Economic Review*, American Economic Association, vol. 104(5), pages 394-99

Andreessen, M. (2011). Why is software eating the world? <https://a16z.com/2011/08/20/why-software-is-eating-the-world/>

Bartelsman, E., Gautier, P. & De Wind, J. (2016). Employment Protection, Technology Choice, and Worker Allocation. *International Economic Review*. Vol. 57, Issue 3, pp. 787-826.

Bregoli, A. (2022). Hospitality trends and challenges for 2022. LinkedIn < <https://www.linkedin.com/pulse/hospitality-trends-challenges-2022-andrea-bregoli/>>

Bughin, J., Hazan, E., Lund, S. Dahlström, P. Wiessinger, A. & Subramaniam, A. (2018). Skill shift: Automation and the future

of the workforce. McKinsey Global Institute < <https://www.mckinsey.com/featured-insights/future-of-work/skill-shift-automation-and-the-future-of-the-workforce>>

Castellani, D., Piva, M., Schubert, T. & Vivarelli, M (2018). Can European Productivity Make Progress? *Intereconomics. Review of European Economic Policy*. Volume 53, 2018 · Number 2 · pp. 75-78

Chesbrough, H. (2019). *Open Innovation Results: Going Beyond the Hype and Getting Down to Business*. OUP Oxford

Dean, G. (2022). Europe's top hotel chain is hiring workers without experience or even résumés because it's so desperate for staff. *Business Insider* < <https://www.businessinsider.com/labor-shortage-hotel-hires-workers-without-experience-rsums-accor-jobs-2022-7>>

European Commission (2020). An SME strategy for a sustainable and digital Europe. < https://ec.europa.eu/info/sites/default/files/communication-sme-strategy-march-2020_en.pdf >

European Commission (2022). Resilience Dashboards. < https://ec.europa.eu/info/strategy/strategic-planning/strategic-foresight/2020-strategic-foresight-report/resilience-dashboards_en>

European Commission (2022). The Digital Economy and Society Index (DESI). <https://digital-strategy.ec.europa.eu/en/policies/desi>

European Commission (2022). Digital Economy and Society Index Report 2022. < <https://digital-strategy.ec.europa.eu/en/policies/desi-human-capital>>

European Investment Bank (2022). Digitalisation in Europe 2021-2022 < https://www.eib.org/attachments/publications/digitalisation_in_europe_2021_2022_en.pdf>

Eurostat (2022). Accommodation and food service statistics - NACE Rev. 2. < https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Accommodation_and_food_service_statistics_-_NACE_Rev._2&oldid=572699#Sectoral_analysis>

Eurostat (2022). Ageing Europe looking at the lives of older people in the EU < https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Ageing_Europe_-_looking_at_the_lives_of_older_people_in_the_EU>

Eurostat (2022). How digitalised are the EU's enterprises? < <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20220826-1>>

Funk, J. (2019). AI and economic productivity: expect

evolution, not revolution. < <https://spectrum.ieee.org/ai-and-economic-productivity-expect-evolution-not-revolution>>

Global Sustainable Development Report (2019). *The Future is Now: Science for Achieving Sustainable Development*. Independent Group of Scientists appointed by the UN Secretary-General

Harjro, N., Hjartar, K., Jenkins, P: & Vieira, B. (2022). Digital trends show big gains and new opportunities. McKinsey < <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/opportunity-knocks-for-europes-digital-consumer-digital-trends-show-big-gains-and-new-opportunities>>

Hammer, M. (1990). Reengineering Work: Don't Automate, Obliterate. *Harvard Business Review* < <https://hbr.org/1990/07/reengineering-work-dont-automate-obliterate>>

Haskel, J. y Stian, W. (2018). *Capitalism without capital. The rise of the intangible economy*. Princeton University Press.

Hazan, E., Smit, S., Woetzel, J. et al (2021). Getting tangible about intangibles: The future of growth and productivity? McKinsey Working paper < <https://www.mckinsey.com/business-functions/growth-marketing-and-sales/our-insights/getting-tangible-about-intangibles-the-future-of-growth-and-productivity>>

Henrekson, M. & Sanandaji, T. (2017). Schumpeterian Entrepreneurship in Europe Compared to Other Industrialized Regions. IFN Working Paper No. 1170.

Hyatt, H.R. & Spletzer, J. (2013). The Recent Decline in Employment Dynamics. IZA Journal of Labor Economics, Vol. 2, Issue 1, pp. 1-21.

International Food Policy Research Institute (2022). 2022 Global Food Policy Report: Climate Change & Food Systems. <<https://www.ifpri.org/event/global-launch-event-2022-global-food-policy-report-climate-change-food-systems>>

Kurzweil, R. (2001). The law of accelerating returns. <<https://www.kurzweilai.net/the-law-of-accelerating-returns>>

Lipsey, R. G., Bekar, C. T., and Carlaw, K. I. (1998). The Consequences of Changes in GPTs. En E.Helpman (ed.), General Purpose Technologies and Economic Growth, Cambridge: MIT Press, 193-218.

Modery, W., Valderrama, M. T. (2021). Key factors behind productivity trends in EU countries. ECB Strategy Review, No 268 / September 2021 <<https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op268~73e6860c62.en.pdf>>

Naude, W. & Nagler, P. (2017). Technological innovation and inclusive

growth in Germany. Bertelsmann Foundation. <<https://www.bertelsmann-stiftung.de/en/publications/publication/did/inclusive-growth-for-germany-18-technological-innovation-and-inclusive-growth-for-germany/#detail-content-5523-0>>

FeedbackEU (2022). No time to waste. <<https://feedbackglobal.org/wp-content/uploads/2022/09/Feedback-EU-2022-No-Time-To-Waste-report.pdf>>

Ocean Tomo (2020). Intangible asset market value study. <<https://www.oceantomo.com/intangible-asset-market-value-study/>>

Perez, C. (2003). Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages. Cheltenham (UK): Edward Elgar Publishing.

Schumpeter (1934). The Theory of Economic Development. Harvard Economic Studies 46.

Skynova (2022). Work-from-home lunch habits <<https://www.skynova.com/blog/work-from-home-lunch-habits>>

Strack, R., Baier, J., Marchingo, M. & Sharda, S. (2014). The Global Workforce Crisis: \$10 Trillion at Risk. Boston Consulting Group <<https://www.bcg.com/publications/2014/people->

organization-human-resources-global-workforce-crisis>

Taleb, N. N. (2008). The Black Swan: The Impact of the Highly Improbable. Penguin.

TotalFoodService (2021). How Remote Workers Impacted the Food Service Industry. <<https://totalfood.com/how-remote-workers-impacted-the-food-service-industry/>>

Tversky, A. y Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases. Science, New Series, Vol. 185, No. 4157. (Sep. 27, 1974), pp. 1124-1131.

Two Ticket Anywhere (2022). Digital Nomad Statistics: How Big Is The Nomad Movement Now? <<https://www.twoticketsanywhere.com/digital-nomad-statistics/>>

United Nations Population Division (2019). World Population Prospects.

Van Ark, B., De Vries, K. & Jäger, K. (2018). Is Europe's Productivity Glass Half Full or Half Empty? Intereconomics. Review of European Economic Policy. Volume 53, 2018 · Number 2 pp. 53-58

Wired (1997). The long boom: the next 25 years of prosperity. Number 07 <https://archive.org/details/eu_Wired-1997-07_OCR/page/n133/mode/2up>

World Tourism Organization (2018). European Union Tourism Trends. UNWTO, Madrid, DOI: <https://doi.org/10.18111/9789284419470>

World Tourism Organization (2019). International Tourism Highlights, 2019 Edition. UNWTO, Madrid, DOI: <https://doi.org/10.18111/9789284421152>.

World Travel & Tourism Council (WTTTC). (s. f.). 30 years of WTTTC. <https://wttc.org/about/about-us/media-centre/press-releases/press-releases/2019/travel-tourism-continues-strong-growth-above-global-gdp>

WWF (2020). Halving food loss and waste in the EU by 2030. The major steps needed to accelerate progress <https://wwf.eu.awsassets.panda.org/downloads/wwf_wrap_halvingfoodlossandwasteintheeu_june2020__2_.pdf>

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