

Do we really need more guest workers?



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How can gastronomical entrepreneurs anticipate on the change in consumer preference and shortage of Dutch chefs?

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Preface and acknowledgement

This research will be conducted for the assessment as the final masterpiece of this study programme, acting upon instructions from the exam committee of Aeres University of Applied Sciences. The research will be conducted in the period between September 2019 until June 2020 under the supervision of Corry Uenk. All revised content is underlined for the assessors.

My motivation behind writing this report arose from the obligation and my personal interest. Prior to this study programme I have graduated in Hotel management. Due to this previous study programme I have been working in this sector for over eight years. Secondly, I am quite informed about market changes that took place within this sector. During my current studies, (European Food Business) I have mastered topics such as Intercultural Sensitivity, Research in European Food Trade, Economics and much more. This paper is the combination of both my previous and current studies where I have combined the taught disciplines in order to develop an incremental solution for the need of specialized labour force in the Dutch gastronomy.

My hope is that this paper will be picked up by other researchers that will have a different view on this concept. Secondly, I hope that this paper in its best achievements will be an inspiration for policy makers to change the current migration policies that exist. As a European Food Business student, I have lived and studied abroad in Italy and France. Prior to that I have lived in Germany. From personal experience in terms of living abroad, I faced many problems in terms of migration due to the bureaucracy that I faced in each different system and country.

Furthermore, I would like to thank my university coach Corry Uenk for all her intellectual support and reflection during this process by taking the time to coach me whenever I needed it.

Glossary

CAP	Common Agricultural Policy
CBS	Centraal Bureau Statistiek (Central bureau of statistics)
EU	European Union
ESCOMAR	European Association of Market Researchers
GDP	Gross Domestic Product
ISCED	International Standard Classification of Education
KHN	Koninklijke Horeca Nederland
kg	Kilogram
MBO	Middelbaar beroepsonderwijs (ISCED 4)
SOAR	Strength, Opportunities, Aspirations and Results
SVH	Stichting Vakbekwaamheid Horeca
SPSS	Statistical Package for the Social Sciences

Summary - English

This research contains the examination on various European countries (Italy, Spain and Portugal) on chosen aspects such as their food waste numbers, short food chain knowledge, employment rates and such in order to answer the central question: “How can gastronomical entrepreneurs anticipate on the change in consumer preference and shortage of Dutch chefs?” This examination was made for the goal to find a solution to the Dutch labour gap in the gastronomy sector.

In order to fill the domestic labour gap, a few European countries were chosen and assessed to verify if there was a possible match, due to the lack of domestic workforce in the Dutch gastronomy sector. The chosen aspects were based on the consumers’ current demand in terms of consumption behaviour. Secondly, the migration laws and views in the Netherlands itself were reviewed in order to verify if the implementation of foreign workforce would be succesful in terms of integration as well. This paper is a combination of various knowledge areas such as socio-political and economic findings. Due to the fact that various aspects were combined in the sense that migration laws are a political matter, the economy was the influence on the labour gap and the social aspect of consumer habits.

The paper is structured as follows: the introduction provides an overview on the matter of the gastronomic labour gap, next, the practice and chosen metrics are presented, the empirical findings are presented in the results chapter, this will be followed by a discussion chapter to review and discuss the findings and lastly, a final conclusion and recommendation is given.

Summary - Dutch

Het doel van dit onderzoek is om te onderzoeken of er een mogelijke toelevering van chefs vanuit het buitenland is, de reden hiervoor is de toenemende arbeidskloof in the Nederlandse horecasector. Dit onderzoek bevat een beoordeling over een paar Europese landen (Italië, Spanje en Portugal) op basis van gekozen aspecten zoals hun voedselverspillingaantallen, kennis van korte voedselketens, arbeidsloosheid en dergelijke om de centrale vraag te beantwoorden: “Hoe kunnen gastronomische ondernemers anticiperen op de verandering in consumentenvoorkeur en tekort aan Nederlandse chefs? ”

Om de binnenlandse arbeidskloof te dichten, werden andere Europese landen gekozen en beoordeeld om na te gaan of er een mogelijke match was, vanwege het gebrek aan Nederlands personeel in de horecasector. De gekozen aspecten waren gebaseerd op het huidige consumptiegedrag van consumenten en de toenemende drang om voedselverspilling terug te dringen. Daarnaast werd de Nederlandse maatschappij onderzocht in het opzicht van openlijkheid naar buitenlanders toe en de huidige migratiewetten, om te zien of er op deze sociaal-politieke aspecten eventuele problemen kunnen ontstaan bij dit concept. Dit rapport is een combinatie van verschillende kennisgebieden zoals sociaal-politieke en economische bevindingen. Dit omdat migratiewetten een politieke aangelegenheid zijn, maar invloed hebben op sociale aspecten zoals integratie.

Dit onderzoek is als volgt gestructureerd: de inleiding geeft een overzicht van de kwestie van de gastronomische arbeidskloof, vervolgens worden de methoden en gekozen maatstaven gepresenteerd, de empirische bevindingen worden gepresenteerd in het resultatenhoofdstuk, gevolgd door een discussiehoofdstuk om een beoordeling van de bevindingen te geven en tot slot wordt een definitieve conclusie en aanbeveling gegeven.

Introduction

The Dutch labour gap had the significance of 23.000 unfilled vacancies mid 2018, this research paper looks into possible solutions for the following problem: The Dutch labour gap in the gastronomy sector had the significance of 23.000 unfilled vacancies mid 2018, with a specific need for 17.800 chefs by 2025 (Marchal & De Kort, 2018). This labour gap leaves gastronomic entrepreneurs with a lack of personnel which could result in foreclosure of a gastronomic enterprise, which could lead to economic problems for the Dutch gastronomic sector.

When looking into the demand of the Dutch labour market, a few variables such as the increase in gastronomic enterprises, increase in jobs and open job vacancies are important factors when defining a possible labour market gap. Gastronomical technical journals Koninklijke Horeca Nederland (KHN) and Stichting Vakbekwaamheid Horeca (SVH) published a labour market report, which stated a decline in graduated educated chefs between 2014 (3700 chefs) and 2017 (3100 chefs).

Due to the economic increase in the Netherlands people tend to make more use of gastronomic services, which lead to the labour market trends of the past years; an increase of 30% for restaurants, 31% for café's and 49% for event catering took place between 2012 and 2018. With reference to the increases in gastronomic enterprises, increases took place in gastronomic jobs consecutively. An increase of 76.000 jobs took place between 2012 and 2018. Followed by a respective amount of 23.000 unfilled job vacancies in 2018 with the highest shortage in chef vacancies (Marchal & De Kort, 2018).

According to Marchal & De Kort (2018) the need for an external inflow of personnel is stressed due to the expected increase of 140.000 till 158.000 jobs annually, between the years 2019 and 2025 in order to meet the expected sector growth.

Lessons can be learned for the future, by looking at the past;

Since the economic crisis of 2008, various European countries such as The Netherlands faced a rise in unemployment (Wolters, 2016). Key sectors of the EU's economy suffered due to the development of a lack in specific labour and skill shortages and it is expected that this will increase in the coming years (European Commission, 2019).

Therefore, a net inflow of 16.000 chefs will be needed in the Netherlands by 2019 followed by an estimated additional significant inflow of 17.800 chefs by 2025. The lack of qualified personnel is stressed by the low inflow of graduated chefs that are educated in the Netherlands. Only 3.000 chefs graduate annually (Marchal & De Kort, 2018).

Not only the lack of personnel is a challenge for gastronomic entrepreneurs but also the work ethics and technical knowledge is a challenge. But also, the worldwide problem of food waste is a challenge which gastronomic entrepreneurs face. Restaurant food waste raised political and public concern (Viachaslau et al., 2020), it has been portrayed in the media as a crime against the planet, with repeated calls to tackle this problem (Cassidy, 2018). The Netherlands is ranked eighth on the Food sustainability index of the year 2018 (Food sustainability, 2018). The urge to tackle the food waste problem and the current ranking of the Netherlands stress the need for change.

According to recent studies, more and more consumers are shifting back to purchasing locally grown and seasonal bound food products instead of products sourced from all around the world (Winzer & Goldschmidt, 2016), also known as short chains (Wikipedia, 2020).

The quote below was given by the Dutch director of the Slow Food Youth Movement Jorrit Kiewik, it supports the current shift in market trends towards more centralized foods to reconnect the consumer with their local suppliers.

“Due to longer food chains we tend to lose the connection to our food. Approximately one-third of the domestic produce is exported from the Netherlands. If we succeed to focus on shorter food chains, we could increase the connection to our food again.” - Jorrit Kiewik, director of the Slow Food Youth Movement NL (Metro, 2019).

The consecutive effect of this change in consumer preference also supports the local economy, which is also more trustworthy for consumers, is another point where customers tend to prefer to (Thilmany, Bond & Bond, 2008). These trends show a market-pull with a demand for new knowledge on the utilization and expertise of food which is lacking in the Dutch gastronomy so far.

Van der Schans (2018) states that the Netherlands is one of the few countries whom do not have short chains activated as a policy goal in the rural development policy. Yet, shorter chains

often lead to a higher involvement of citizens towards farms due to the closer distance to one another within the supply chain.

The current market-pull towards more local and seasonal bound food and need for reduction on food waste all go hand-in-hand with actual problems, problems which hospitality entrepreneurs have to deal with. These changes in consumer behaviour require a need for change in the current chains such as the food- and supply chains, with a need for external knowledge from other cultures whom already apply such systems.

This study has as objective to fill the labour gap of the Dutch gastronomy sector by including the trends of consumer preference and market changes. In order to find a suitable solution to this problem, various perspectives combined, will result in an answer with a possible solution:

- Employment rates of chosen European countries with possible supply of chefs. In order to paint a picture of comparable situations between the Dutch system and other European countries, the academic culinary educational programmes will be compared. Both in terms of academic level and employment rates post-graduation. The EU has defined a reference body that categorizes educational programmes by level and field. This International Standard Classification of Education (ISCED) is an international point of reference (Eurostat, 2018). ISCED 4 refers to Post-secondary non-tertiary education, this includes study programmes that provide learning experiences that focus on secondary education and the preparation for labour market entry. Culinary educational programs are covered by ISCED 4.
- Knowledge on shorter food supply chains of foreign European countries, looking into the food supply systems of other members states. With the aim to find countries with advanced shorter food chains and knowledge.
- Statistical numbers on food waste amongst European countries, looking for countries with know-how on food utilization.
- In order to explore the implementation of foreign chefs to the Dutch gastronomy, one should take European migration laws and intercultural processes into account if, this idea should prove to be a solution.

Research on the current legislative system in Europe and the Netherlands in terms of labour migration are needed to define if, the current legislative system is sufficient enough to meet the global developments that are taking place.

What is rather unknown, is if the current integration processes are suitable for today's market changes. The process of integration focusses on the efforts and adaptation of immigrants and the receiving society's interactions with the new entrants. Yet, the receiving society has a dominant effect in the matter of the outcome (Penninx & Scholten, 2016). This is due to the fact that democratic countries tend to create policies that focus on short-term results. Successful integration processes however are achieved with long-term results such as social cohesion. Policies such as migration policies usually consist of a defensive and control-centred base instead of a proactive point of view (Garces-Mascareñas & Penninx, 2016).

Global developments are expected to push the growth of immigrant populations on a worldwide level, therefore there may be a need for adaptive integration policies, yet the specifics on more suitable policies are still unknown.

This paper explores the relationship between European countries as a possible solution to the Dutch gastronomic labour gap, with additional benefits for both parties involved. It explores the openness to migration and the effectiveness of migration laws within Europe on the long run. It will also look deeper into possible economic advantages, in order to make the concept attractive for possible external readers.

Main- and sub question

The main question of this research will be answered as clear as possible after answering the five sub questions. The sub questions are as follows:

1. What is the domestic labour gap in the Dutch gastronomy sector?
2. In which European countries is it custom to work with regional bound and local foods?
3. In what type of European country are chefs able to work in a way to decrease the amount of food waste?
4. In which European county is there a surplus of manpower?
5. Is the current legislative system beneficial enough for the European labour migrant?

How can gastronomical entrepreneurs anticipate on the change in consumer preference and the shortage of Dutch chefs?

Methodology

The following chapter will inform the reader about the methodologic approach for this research. It will be a combined summary with multiple narratives. As it entails labour factors, cultural factors such as food utilization and consumer preference and political and economic factors in terms of integration policies.

The sub-questions and main research question were answered by using extensive literature research.

During the overall research and even prior to this research, the European Association of Market Researchers (ESCOMAR) code of conduct will be kept in mind.

The importance of ethics is of key value in terms of respect to all readers, participants and humans of all ethnic groups in general.

Transparency towards all participants will be shown throughout the whole research and no harm will be caused to participants whatsoever (ESCOMAR, 2019).

The purpose of this applied research is to collect and analyse data with the aim to contribute to an answer of the main question: How can gastronomical entrepreneurs anticipate on the change in consumer preference and shortage of Dutch chefs?

This work contains applied scientific research as the aim of this research is to collect information on a possible solution and to verify if the applied knowledge is an actual solution. Given the characteristics of the research question, the research method of this work contains qualitative research due to the closed art of the main research question.

Prior to this research, a literature search has been done in order to verify if this option has been explored by others. Up until now, no relatable studies have been conducted so far, this is a positive confirmation to conduct this research. Relatable research in terms of integration policies and such have been conducted, these papers are of vital use for further research.

In specific, this report will be based on explanatory/hypothetical-deductive research.

This paper mainly looks into the current domestic demand and foreign supply, moreover the application of Italian workforce will be explored as a possible solution. This hypothesis will be tested with various materials and methods, if this evaluation method and the collected data prove to be correct this paper could function as an incentive for employment agencies and policy makers to improve the current system.

Personal data has been collected and used for research purposes only.

Sub question one: What is the domestic labour gap in the Dutch gastronomy sector?

The first sub question was answered through literature research. The following search terms were applied at databases such as Science Direct, Springer, Wiley and google.

The literature search plan consists of search terms such as;

- 'Dutch food chains'
- 'Dutch short food chains'
- 'Dutch supply chains'
- 'Dutch short supply chains'
- 'Dutch cuisine' Italian regional'
- 'Dutch regional food habits'
- 'Dutch food habits'
- 'Dutch knowhow food'
- 'Dutch need short chains'
- 'Netherlands short chains'

The aim of these search terms was to provide literature content in order to answer sub question one. Sub question one was answered with literature research by looking into current market trends and the need for the development of short food chains. By looking into the above-mentioned search terms a conclusion was formed if the Netherlands currently contains the knowledge and implementation of short chains and regional food produce and consumption.

Sub question two: In which European countries is it custom to work with regional bound and local foods?

The literature search plan consists of search terms such as;

- 'Regional food chains'
- 'Local short food chains'
- 'Regional supply chains'
- 'Local supply chains'
- 'European short supply chains'
- 'European regional cuisine'
- 'European regional food habits'
- 'European food habits'
- 'European knowhow food utilization'

'Korte ketens'
'Beleidsdoel'
'Beleidsdoelen'
'Short food chains'
'Short chains Europe'

The search terms were applied at databases such as Science Direct, Springer, Wiley and google. The aim of these search terms was to provide literature content in order to answer sub question two.

By applying the above-mentioned search terms, literature research was applied. The aim of this type of research was to narrow down to a specific European country that could contribute to the Dutch gastronomical labour gap with additional knowledge.

Sub question three: In what type of European country are chefs able to work in a way to decrease the amount of food waste?

The third sub question was answered with literature research.

The literature search plan consists of search terms such as;

'European food waste numbers'
'Europe food utilization'
'European knowhow food utilization'
'Food waste'
'Food waste numbers'
'Food waste measurements'
'Food waste EU'
'Food waste climate change'
'Top environmental damaging activities'
'Eurobarometer'
'FAO food waste'
'WHO food waste'
'Food waste gastronomy'
'Food waste gastronomic sector'

The search terms were applied at databases such as Science Direct, Springer, Wiley and google. The aim of these search terms was to provide literature content in order to answer sub question two.

By applying the above-mentioned search terms, literature research was applied. The aim of this type of research was to narrow down to a specific European country that could contribute to the Dutch gastronomical labour gap with additional knowledge in terms of decreasing food waste.

Sub question four: In which European county is there a surplus of manpower?

The fourth sub question was answered with a meta-analysis.

By looking into the gastronomical education system, new leads to defining the actual labour influx can arise.

Data from statistical institutes such as Eurostat were used in order to define the actual data for topics such as; educational attainment levels, types of educational attainment levels and employment rates post-graduation of the researched education attainment levels and educational divisions. Secondly, Dutch databases will be used in order to define the trend in the Dutch labour gap. And thirdly, GDP rates and trends were studied.

Sub question five: Is the current legislative system beneficial enough for the European labour migrant?

Sub question five was answered with literature research into the current migration policies and the possible deficiencies that possibly needed to be improved to keep up with the globalisation of migrants.

The fifth sub question was answered through literature research. The following search terms were applied at databases such as Science Direct, Springer, Wiley and google with the following search terms:

- 'European migration'
- 'European migration laws'
- 'European migration policies'
- 'Globalisation Europe'
- 'Difficulties migration Europe'
- 'Adaptation law Europe'
- 'Dutch migration law'
- 'Dutch culture'
- 'Dutch multiculturalist model'

The aim for answering sub question five was to verify if current (legislative) systems are in place and if these systems serve the current trend in migration in Europe, or to verify if there is a need for adaptation in order to ease the migration process in Europe.

Results

Sub question one: What is the domestic labour gap in the Dutch gastronomy sector?

When looking into the demand of the Dutch labour market, a few variables such as the economic state of the country, the increase in gastronomic enterprises and the increase in filled jobs and open job vacancies are important factors when defining a possible labour market gap.

When defining a countries' financial state, countries are categorized by the estimates of their GDP (Gross Domestic Product). The GDP is expressed in the market value of all final services and goods from a country in the given year and these numbers are estimates from financial and statistical institutions. Since the Dutch economy continued to grow, the GDP increased with 2,6% in 2019. This makes 2019 the sixth consecutive year of economic growth in the Netherlands. The growth is mainly earned through domestic activities. Due to the increase of the domestic income, people tend to consume more (Rijksoverheid, 2019).

With this economic increase, an increase of 31% for restaurants, 30% for café's and 49% for event catering took place sequentially since 2012 (Marchal & De Kort, 2018). With reference to the increases in gastronomic enterprises, increases took place in gastronomic jobs consecutively.

According to the CBS (Centraal Bureau Statistiek), the amount of job vacancies in all industries has been peaking since 2014. The gastronomy sector in specific had a change of 2.700 job vacancies between 2018 and 2019, these increases have been the highest since the financial crisis of 2007. The overall amount of job vacancies in the gastronomy sector in 2019 summed up to 22,9 thousand vacancies.

In order to verify if the 22,9 thousand job vacancies can be filled with domestic workforce, the number of graduating chefs is important. The profession of a chef is a craft and craftsmanship and therefore requires education.

Gastronomical technical journals Koninklijke Horeca Nederland (KHN) and Stichting Vakbekwaamheid Horeca (SVH) published a labour market report which stated a decline in the amount of graduated educated chefs between the year 2014 (3700 chefs) and 2017 (3100 chefs). Currently approximately 3.000 chefs graduate annually, whereas 67% of the graduated chefs end up with a job in the gastronomy sector. Subsequently the report states that a need for 17.800 chefs will be needed by 2025 (Marchal & De Kort, 2018).

Sub question two: In which European countries is it custom to work with regional bound and local foods?

Not only the lack of educated personnel is a challenge which gastronomic entrepreneurs face, besides that, the challenge to meet consumers' demand is of high importance, one of which is the increased demand for regional and seasonal bound foods, also known as short food chains (Van der Schans, 2018).

According to recent studies, more and more consumers are shifting back to purchasing locally grown and seasonal bound food products instead of products sourced from all around the world due to its lower impact on the environment (Winzer & Goldschmidt, 2016), also known as short chains (Wikipedia, 2020). Shorter food chains often lead to increased involvement between farms and citizens. Yet, the Netherlands is one of the few countries which did not prioritize short food chains in their rural development policy (Van der Schans, 2018).

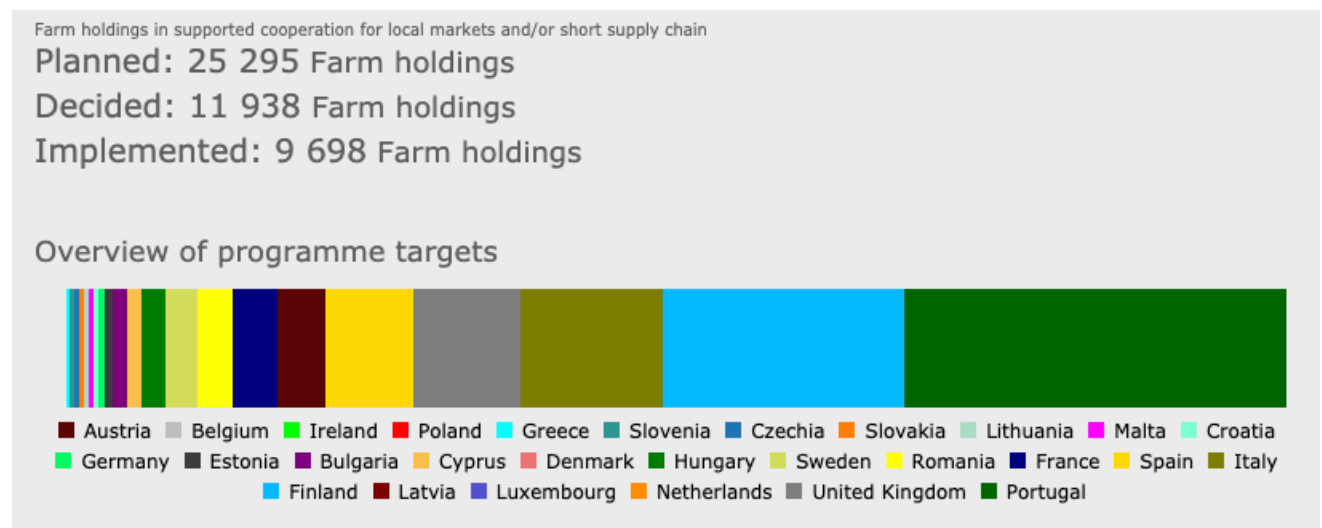


Figure 1 European project on commitment towards short food chains (EC Cohesion data, 2020)

Figure one summarizes the farm holdings that have been created in support of cooperation for local markets and short supply chains. The European Union's rural development policy helps improve the rural areas of the EU to meet the wide range of challenges and opportunities that are faced in terms of economic, environmental and social development (known as the

second pillar of the Common Agricultural Policy). This specific project for the European Agricultural Fund for Rural Development was initiated by the European structural and investment funds. Figure one refers to the total amount of planned farm holdings which sums up to 25.295, the decided farms accounted for 11.938 farm holdings and 9.698 farm holdings were actually implemented.

Table 1 Number of farms committed to short food chains (Amber Pot, 2020)

EU Member state	Number of short supply chains / local markets supported through farm holdings
Portugal	7.953
Italy	2.951
Spain	1.805
The Netherlands	0

Table one summarizes the actual amount of farms of the potential countries to implement chefs from, into the Dutch gastronomy. Currently, Portugal holds the highest amount of initiatives to commit to shorter supply chains, followed by Italy, Spain is third and the Netherlands is on the bottom of all European member states with zero initiatives committed to this cause so far.

Sub question three: In what type of European country are chefs able to work in a way to decrease the amount of food waste?

The worldwide problem of food waste is another challenge which gastronomic entrepreneurs face. The developed countries are characterised by mature markets of out-of-home food consumption with excessive wastage (Christ and Burritt, 2017). Such markets are rapidly emerging in the transitional economies and the phenomenon of restaurant food waste is growing here accordingly, thus calling for its in-depth research (Pirani and Arafat, 2016; Wang et al., 2017; Wen et al., 2015). The most recent measurement of food waste numbers of the chosen countries dates back to 2010, see table two.

Country ↓	Amount of food waste in KG ↓
Netherlands	541
Italy	179
Spain	135
Portugal	132

Table 2 Amount of food waste per country (European parliament, 2017)

Table two shows that in the year 2010, the Netherlands wasted the most amount of food, followed by the Italians, and a close tie with Spain as third and Portugal on the fourth place. The amounts that table two refers to, are the amount of KG that the average citizen of that country tends to waste, annually.

Restaurant food waste raised political and public concern (Viachaslau et al., 2020), it has been portrayed in the media as a crime against the planet, with repeated calls to tackle this problem (Cassidy, 2018). For example, in fine dining restaurants, due to the high-quality standards and aesthetic reasons, substantial wastage occurs during food preparation (Charlebois et al., 2015) while, in casual dining restaurants, significant wastage is produced by consumers (Juvan et al., 2018). The food service sector in the EU wasted 11 million tonnes of food in the year 2012 (Fusions, 2020). The Netherlands is ranked 8th on the Food sustainability index of the year 2018 (Food sustainability, 2018). The urge to tackle the food

waste problem and the current ranking of the Netherlands stress the need for change. The attractive aspect of a more precise food utilization also increases profit when less food is wasted (Giorgi, 2013).

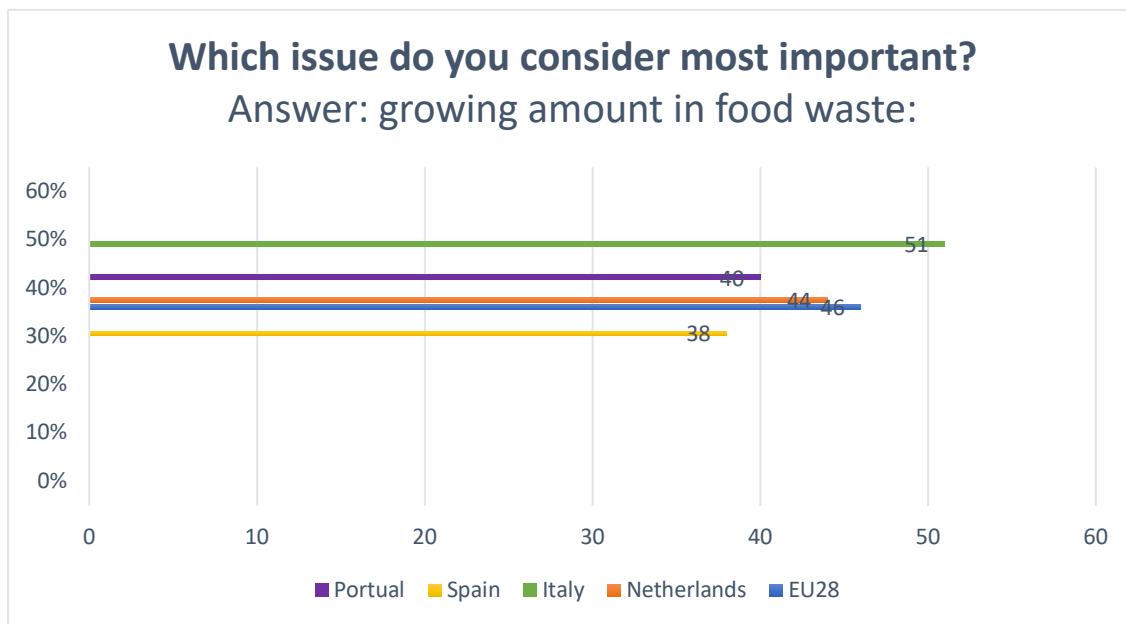


Figure 2 Eurobarometer results on food waste importance amongst EU citizens

Figure two is another outcome of the EU's development policy and it summarizes the outcomes that were taken per EU country, for the chosen countries for this research in specific. As to be seen on figure three is Italy the country with the highest interest that is stressed towards food waste, this is followed by the Netherlands, thereafter, comes Portugal and Spain at the bottom.

Sub question four: In which European country is there a surplus of manpower?

Marchal & De Kort (2018) state that the average quality of the educational program for chefs has decreased over the years. The majority of graduates fall under the category 'upper secondary education' (MBO two till four), which falls in line with ISCED 4 on a European level.

In order to paint a picture of comparable situations between the Dutch system and other European countries, the academic culinary educational programmes will be compared. Both in terms of academic level and employment rates post-graduation. The EU has defined a reference body that categorizes educational programmes by level and field. This International Standard Classification of Education (ISCED) is an international point of reference (Eurostat, 2018). ISCED 4 refers to Post-secondary non-tertiary education, this includes study programmes that provide learning experiences that focus on secondary education and the preparation for labour market entry. Culinary educational programs are covered by ISCED 4.

Table 3 - Employment rates post-graduation, selected by age and educational attainment level 3 and 4, in percentages (Eurostat, 2018).

Time → Geographical location ↓	2018 Q1	2018 Q2	2018 Q3	2018 Q4	Average of the year 2018
EU Average	70,9%	71,9%	72,0%	71,6%	71,6%
Italy	63,6%	65,3%	64,5%	63,9%	64,3%
Portugal	70,7%	72,3%	72,3%	72,6%	72,0%
Spain	59,0%	60,6%	61,5%	61,3%	60,6%

Table three visualizes the actual percentages that were taken from the Eurostat database. The averages are presented per country of the year 2018, post-graduation of the educational attainment level three and four, of persons from the age 15 till 64.

The unemployment rate of Upper secondary and post-secondary non-tertiary education (level three and four) of the year 2018 had a European average of 28,4% ($100\% - 71,6\% = 28,4\%$). This was followed by 35,7% for the Italian market ($100\% - 64,3\% = 35,7\%$).

28% for the Portuguese ($100\% - 72\% = 28\%$).

And 39% for Spain ($100\% - 60,6\% = 39\%$).

Spain and Italy were amongst the highest scoring countries in terms of unemployment rates (Eurostat, 2019).

Besides domestic unemployment, a monetary pull is often a leading cause for people to work abroad. Therefore, the economic state of the chosen countries will be accessed.

The economic state of a country can be measured with the Gross Domestic Product (GDP). The GDP growth rates refer to economic growth of a country. In other words; economic growth is linked to more jobs and job security within a country.

Table 4 - GDP forecast and difference (OECD, 2019)

Country → Years ↓	Portugal	Spain	Italy	Netherlands
2017	3,5%	2,9%	1,8%	3,0%
2018	2,4%	2,4%	0,7%	2,5%
2019	1,9%	2,0%	0,2%	1,7%

Table four summarizes the GDP rates, per chosen country, at market prices, measured by the OECD. The OECD (Organisation for Economic Co-operation and Development).

In order to define the economic welfare differences per country, the most recent measurements per country will be compared to the GDP rate of the Netherlands of 2019.

Table 5 GDP growth rates compared

Chosen country	GDP Rate	GDP of NL of 2019	Difference
Portugal	1,9%	1,7%	0,2%
Spain	2,0%	1,7%	0,3%
Italy	0,2%	1,7%	-1,5%

Table five shows the differences of the GDP rates towards the Netherlands of the year 2019. Whereas the biggest difference is between the Netherlands and Italy with 1,5%, followed by 0,3% between Spain and the Netherlands and lastly, 0,2% between Portugal and the Netherlands.

Sub question five: Is the current legislative system beneficial enough for the European labour migrant?

One of the European Union's principles is the free movement of people and free worker movement. The free worker principle is the fundamental right of each EU citizen, this permits them to work in one of the 28 Member states of the EU. In order to work abroad as an EU citizen, there is no need to have a work permit, or visa as such and the nationals deserve an equal treatment compared to the nationals of the chosen country (European Commission, 2020).

According to Scholten and Penninx (2016) Member states of the EU have given a significant amount of power to the EU. The contra movement of this, is the local turn in policymaking which is taking place in local governments within the EU. A sum of local governments and larger cities in specific, have been entrepreneurial in creating their local and own integration views and policies.

Looking back to the fundamental base of the EU, the Treaty of Maastricht was created in 1992 which entailed the multi-level governance. Multi-level governance is a binding concept which integrates authorities such as all different EU member states systems with one international political economy. The unification present both opportunities and challenges is the sense of the different systems and cultures of the EU combined. Immigration policies for instance, have been characterized by a conflict between national governments and the EU, yet these principals are integrated in the First Pillar, which resembles the fundamental base of the EU's principles and narratives.

Again, the free movement of Europeans is an important factor in the migration policy of the EU, this intra-EU migration has been firmly placed in the EU treaties which form the base for all European agreements.

The Netherlands has been known as a multicultural country, defining the Dutch integration policies as "multicultural policies" should be seen as a co-productive principle between politicians and scholars whom disapprove of the exact integration policies that define the multicultural base of the Netherlands (Duyvendak & Scholten, 2010).

The Dutch constitution was created in 1815, this constitution is above all laws and it states the fundamental rights of all Dutch citizens. For instance, the first article of the Dutch constitution states “All who are in the Netherlands are treated equally in equal cases. Discrimination on the grounds of religion, belief, political affiliation, race, gender or any other reason is prohibited.”
– The Dutch constitution, 1815.

The Dutch system has a rather, liberal-egalitarian base, which means that all are equal, the equality can refer to many principles such as political equality, social equality and equality of possibilities (Wikipedia, 2020).

Discussion of results

All the collected data which was used for this research paper depended on preliminary research of other parties. By using preliminary data such as literature studies and statistical reports, all information provided for this paper had to be existing.

Food waste is a problem which is communicated globally, on all levels in society, yet the most recent food waste numbers of all chosen countries dates back to the year 2010. The FAO, WHO, Wageningen University, the European Union databases and more were accessed in order to find more recent numbers, with no success. Therefore, the numbers on which the answer for sub question three is based, is based on rather outdated data.

Secondly, are no specific food waste numbers measured per sector, this paper therefore does not include any specific number and solution to decrease food waste in the gastronomy sector itself, because there was no data to use as a point of reference. It is advisable to initiate more recent research towards current food waste numbers and solutions. The lack of contra arguments is due to the limited amount of existing research on these topics.

Furthermore, was this paper initiated to solve a part of the problem: the labour gap in the Dutch gastronomy sector. In order to verify if the narrative of this paper was correct, European aspects were included, yet the target of this research is destined for gastronomic entrepreneurs in the Netherlands specifically.

Looking back to the collected data per question, the results are quite accurate and very informative for this target group. The economic influence on this topic comes back in various ways: the economic pull for a foreign chef to work abroad, and the economic influence on the trend of the labour gap in the Dutch gastronomy sector.

Another interesting variable was the social aspect of this research paper, which is harder to scientifically underpin. The social aspect of this paper includes the cultural aspect of countries themselves, consumer habits in terms of consumption behaviour and the integration of people which is politically pinned down. Migration policies are politically

decided per country within the EU, but with influences of the European Union's pillars which were mentioned previously in this paper.

All the numbers and scientific research which was mentioned in this report were collected and applied before the COVID19 pandemic. Therefore, this paper does not include the influence of this pandemic in specific, due to the current state of the situation which has not been scientifically captured towards its effect on the Dutch gastronomy in future terms.

Conclusion and recommendation

Sub question one: What is the domestic labour gap in the Dutch gastronomy sector?

The labour gap of the Dutch gastronomy had a significance of 23.000 unfilled vacancies mid 2018. In the year 2019 the total amount of job vacancies in the gastronomy sector summed up to 22,9 thousand vacancies. An estimation made by Marchel & De Kort stressed the need for 17.800 chefs for the year 2025. In the Netherlands 3.000 chefs graduate annually. These numbers show that there is a need for more chefs, if the domestic supply is not enough,

Sub question two: In which European countries is it custom to work with regional bound and local foods?

The data from figure one refers to the fact that in terms of commitment towards short supply chains, Portugal came first, followed by Italy and Spain as third. These projects initiated by the EU have not been finished yet, still the fact that the Netherlands currently has zero of these farms shows that the interested is not very high.

Sub question three: In what type of European country are chefs able to work in a way to decrease the amount of food waste?

Table two shows that from the chosen countries, in the year 2010, the average Portuguese citizen wasted the least amount of food annually, followed by Spain and Italy as third.

Due to the fact that these numbers are from ten years back it could be so that the order is different now.

Yet, another important factor to answer this question is the citizens' interest in this matter. Figure two summarizes the Eurobarometer results for this topic, where the Italian scored with the highest interest, followed by Portugal and Spain as last.

Due to the lack of information on this topic, which is contradictory to the fact that food waste has been communicated on a global level and stressed at all levels of society. Yet, the data on this matter is rather low. Therefore, an advice would be to conduct a study about the current

food waste numbers on a European level. Secondly, it would be advisable for the technical gastronomic journals of KHN and SVH to do a collaborative study with the CBS about the gastronomy's sector food waste that takes place in the Netherlands.

Sub question four: In which European county is there a surplus of manpower?

Table one shows that the highest unemployment was in Italy, followed by Portugal and Spain with the lowest unemployment rate. These results go hand-in-hand with the GDP rates compared to the GDP of the Netherlands. The biggest difference was between Italy and the Netherlands with a difference of 1,5%, followed by 0,3% between Spain and the Netherlands and lastly 0,2% between Portugal and the Netherlands.

Sub question five: Is the current legislative system beneficial enough for the European labour migrant?

The current European system is very open towards intra-EU migration. The free movement of EU citizens and the free worker principle are both part of the First pillar of the EU fundamental rights. Secondly, the Dutch constitution and liberal-egalitarian base both go hand-in-hand with the positivity that is met towards foreign people that work in the Netherlands. The integration of chefs is a social aspect for the Dutch society, yet the approach towards this matter is tackled with political instances. The socio-political base on this matter is beneficial for intra-EU migration and is only a double affirmation that the integration of foreign workers will be succesful in the Dutch society.

In order to answer the main research question of this paper, a SOAR (Strength, Opportunities, Aspirations and Results) will be given. The reason for the SOAR instead of a SWOT analysis is due to the base of the SOAR. A SOAR is an analytical tool which focusses on the actual strengths and positive aspects of an idea or project instead of including negative aspects.

Table 6 SOAR

<p>Strength</p> <ol style="list-style-type: none"> 1. The labour gap, the need for workforce 2. The Dutch multicultural society, easy integration process 	<p>Aspirations</p> <ol style="list-style-type: none"> 1. To fill the labour gap with foreign workforce 2. Increased knowledge of short food chains 3. Less food waste
<p>Opportunities</p> <ol style="list-style-type: none"> 1. Economic pull for foreign chefs 2. Domestic lack of knowledge of short food chains 3. Foreign unemployment rates 	<p>Results</p> <ol style="list-style-type: none"> 1. To have filled the labour gap 2. Continuous growing economy 3. Less food is wasted 4. More use and demand of regional and seasonal bound foods in restaurants

Table six summarizes the SOAR approach towards the concept of integrating foreign chefs into the Dutch gastronomy sector. The strength of this concept towards the foreign chefs would be the significance of the labour gap, plenty of jobs that are to be filled and need to be filled. As mentioned in the Results chapter, the domestic labour supply is not enough. The Dutch system and policies in terms of migration have been assessed. The Dutch multiculturalist society is another advantage for this concept.

The aspirations of this concept are to fill the labour gap in the Dutch gastronomy sector with foreign workforce. The need for foreign workforce is due to the low domestic supply of educated chefs in the Netherlands. The rural development policy in the Netherlands is not implemented with the focus and investment of short food chains, figure two showed that Portugal has made the most commitment, followed by Italy.

Another important factor is to decrease the amount of food waste, figure three showed that the Italians found it the most important by far, the urge for people to decrease food waste is an important factor when tackling this problem.

One of the opportunities of this concept is the economic pull for foreign chefs, table three shows that the biggest economic pull is for Italian chefs, due lesser state of the Italian economy, the Dutch economy presents itself as an attractive country to work in due to the better economic welfare of the country. Subsequently, the domestic lack of knowledge on short food chains poses and opportunity for foreign chefs to actually influence the system of the Dutch gastronomic enterprises. Lastly, the unemployment rates of the chosen countries are beneficial for this concept. The Italian labour market had the highest unemployment rate with 35,7%. Both the high unemployment rate in Italy and the economic-pull towards the Netherlands refer to the fact that the low amount of employment in Italy most likely makes the Italians resort to other options, such as working abroad.

The results of this concept would be to have partially filled the Dutch labour gap in the gastronomy sector, with the addition of the implemented knowledge of foreign chefs on more regional and seasonal bound food. Subsequently, the amount of food waste shall be reduced, and the Dutch economy will keep on growing which is only beneficial for the gastronomy sector if people spend more money out of home.

To answer the main research question of this research paper: How can gastronomical entrepreneurs anticipate on the change in consumer preference and shortage of Dutch chefs?

By implementing foreign workforce, Italian chefs in specific, the labour gap could be solved with an additional benefit of adjusting the current food system with more know how on the use of regional and seasonal bound foods.

Table two shows a significant economic difference between the GDP growth rates of the Netherlands and Italy. Secondly, the table shows a decline amongst the GDP growth rates of Italy. This decline shows that the Italian economy is in a rather weak state with a low confidence in job security in Italy, especially for post-graduates whom want to enter the job market. This economic difference between Italy and the Netherlands is favorable for the possible employment of Italian chefs within the Dutch gastronomy.

Studies such as these confirm that countries such as Italy are currently adapting the food systems with shorter chains which fall in line with their cuisine which consecutively focusses on seasonal and regional bound food. Their local traditions in food production and regional cuisines in food habits are still of high value but, the current 'consumerist era' sparked a shift towards a greater consumer and citizen involvement towards environment and public health (Lizzi & Righettini, 2018). These exact system changes and adapted knowledge are needed to supply the Dutch gastronomy's need for foreign knowledge with regard to shorter food chains.

It is to be recommended to conduct a market specific research on the food waste numbers in the Dutch gastronomy sector. Currently, no active study entails this information yet. Secondly, a more recent study should be conducted to investigate the current food waste numbers per European country, this famous topic is worldwide spoken of, yet there is no recent data stating the current state on food waste.

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