



FOOD ECO- CULTURE EDU

Connecting Disciplines in European Higher Academia



REIMAGINING FOOD EDUCATION: TRENDS, CHALLENGES & OPPORTUNITIES



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the European Union

www.foodecocultureedu.eu



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01

INTRODUCTION



| INTRODUCTION

About our project

Food Eco-Culture Edu aims to transform education across Europe by integrating an interdisciplinary approach to food, hospitality, and related fields. The project seeks to bridge theoretical knowledge of food's relationship with other disciplines through the practical application of innovative solutions, fostered by collaboration with community and industry partners. By engaging over 300 students and educators across four higher education institutions (HEIs), FoodEcoCulture will enhance participants' skills, preparing them to lead the food sector toward a more inclusive and sustainable future.

Research Report and In-Depth Analysis

This document has been developed as part of Deliverable 2.3 under Work Package 2 of our project. The research report investigates the future of food education in Europe, examining key themes such as digitalization, social inclusion, and environmental changes and challenges. Focusing on the Netherlands, Ireland, Portugal, and the broader European Union, the report analyzes how these regions are addressing the challenges and opportunities within the food sector. It explores the integration of digital technologies to improve food systems, the promotion of social inclusion to foster equity and cultural exchange, and the adoption of sustainable practices to support the green transition. The report aims to provide a comprehensive overview of how food education can evolve to tackle these interconnected themes, preparing educators, students, and communities to play a leading role in shaping a more inclusive, sustainable, and technologically advanced food future across Europe.

The Food Eco-Culture Edu project is a direct response to the challenges facing food education in Europe. Traditional models of food-related learning often separate theory from practice, leaving graduates ill-equipped to navigate an increasingly complex food sector. At the same time, the industry is under pressure to adapt to changing environmental, technological, and social landscapes. This project brings together leading institutions from across Europe to tackle these issues head-on, with the aim of producing graduates who are not only knowledgeable but also capable of driving meaningful change.

FOOD EDUCATION: A NEW LANDSCAPE

Led by **NHL Stenden University of Applied Sciences (Netherlands)**, FoodEcoCulture includes partners with expertise in **hospitality, digital learning, sustainability, and industry collaboration**. **Momentum Educate and Innovate (Ireland)** specialises in digital education and workforce training, while **Technological University of the Shannon (TUS, Ireland)** brings strong connections with industry and applied research. **The European E-Learning Institute (EUEI)** plays a critical role in ensuring that digital tools are integrated effectively into teaching and learning. **Instituto Politécnico do Cávado e do Ave (IPCA, Portugal)** focuses on embedding sustainability within food studies, and **Rijksuniversiteit Groningen (RUG, Netherlands)** provides research expertise in food systems, policy, and environmental challenges.

Together, our institutions are working to reshape food education by bridging the gap between academic learning and real-world application.





CREATING CHANGE

One of the key weaknesses in current food education is its failure to keep pace with the rapidly evolving industry. Advances in digitalisation, the push for sustainability, and shifting consumer behaviours demand a workforce that can think critically and adapt quickly. Yet, many higher education institutions still prioritise outdated models of learning that do not reflect the realities of the food sector.

FoodEcoCulture challenges the norm by integrating **cross-disciplinary approaches, industry engagement, and digital innovation** to equip students with the skills needed to navigate future challenges.

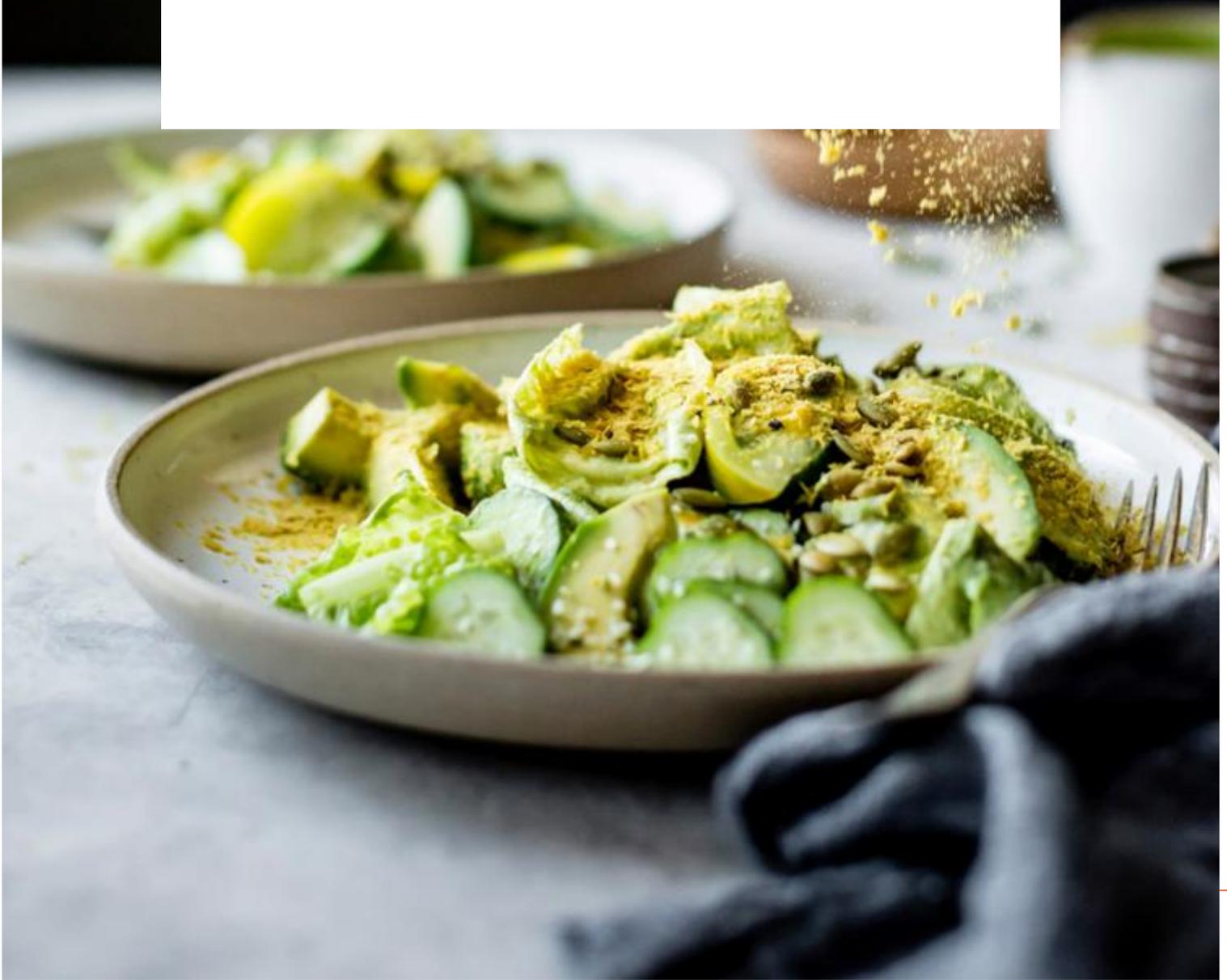


| FOODECOCULTURE: THE CHALLENGE!

We do not assume that change will be straightforward. The transition to a more sustainable, inclusive, and technologically advanced food system comes with significant obstacles. Industry resistance, policy gaps, and entrenched habits within education itself all present barriers to meaningful reform.

The success of this initiative will depend on its ability to challenge traditional thinking, push for systemic change, and ensure that knowledge transfer is effective, practical, and relevant.

FoodEcoCulture is not just about updating course materials or adding new modules. It is about redefining the relationship between education, industry, and society, ensuring that food graduates are not passive participants in the sector but active contributors to its future.



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OUR TEAM



OUR TEAM

The **FoodEcoCulture** project is led by **NHL Stenden University of Applied Sciences (Netherlands)**, bringing its expertise in hospitality, tourism, and food innovation to the forefront. The project is supported by a diverse consortium of partners, each contributing specialized knowledge in education, sustainability, and digital learning.

Momentum Educate and Innovate (Ireland) enhances the initiative with its focus on training and digital education, while **Technological University of the Shannon (TUS, Ireland)** strengthens industry collaboration and applied research.

The **European E-Learning Institute (EUEI)** plays a key role in integrating innovative digital learning strategies.

Instituto Politécnico do Cávado e do Ave (IPCA, Portugal) contributes expertise in sustainability and food studies, and **Rijksuniversiteit Groningen (RUG, Netherlands)** provides research leadership in food systems, policy, and environmental sustainability.



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OUR TEAM

A **multidisciplinary team** is critical to **FoodEcoCulture**, as the food sector's challenges cannot be tackled from a single perspective. Our project brings together experts in **food science, hospitality, education, digital learning, sustainability, and policy**, ensuring graduates are prepared for an industry in flux.

The shift towards sustainability, digitalisation, and new business models demands input from **environmental scientists, economists, technologists, and industry leaders**. Academics alone cannot drive change—real engagement with industry and policymakers is essential. Without this approach, food education will remain disconnected from industry realities, failing to equip students for the demands of the future.

Together, we are transforming food education across Europe, bridging theory and practice to create a more inclusive, sustainable, and technologically advanced food sector.



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03

COUNTRY PROFILES



| EUROPEAN FOOD POLICY

European food policy is often framed around issues of safety, sustainability, and economic viability, but there is an equally important cultural and historical dimension that is frequently overlooked. Food is not just about nutrition or commerce—it is deeply tied to identity, migration, colonial legacies, and social inclusion.

Recognising this, a number of pioneering universities and scholars within the EU have begun to explore food policy through a more interdisciplinary and historically grounded approach. Their work challenges dominant narratives, reshapes how food is taught in higher education, and highlights the role of food in shaping national and regional identities.

One of the leading institutions in this space is the University of Gastronomic Sciences of Pollenzo, Italy, which integrates history, culture, and sustainability into its academic programmes.

This approach moves beyond the traditional focus on food science and business, instead examining how gastronomy intersects with migration, globalisation, and historical power structures. Similarly, scholars like Prof. Massimo Montanari (University of Bologna & University of Coimbra) have been instrumental in reshaping the study of food heritage, exploring how culinary traditions have evolved over centuries and debunking myths of "authenticity" that often dominate popular discourse.

This critical perspective is also evident in the work of Prof. Alberto Grandi (University of Parma), who has challenged widely accepted narratives about Italian food. His research, which has sparked considerable debate, suggests that many so-called "traditional" Italian dishes have far more recent and global origins than commonly believed. His work highlights how culinary identity is often constructed and shaped by historical forces such as trade, colonisation, and migration, rather than being rooted in static national traditions.

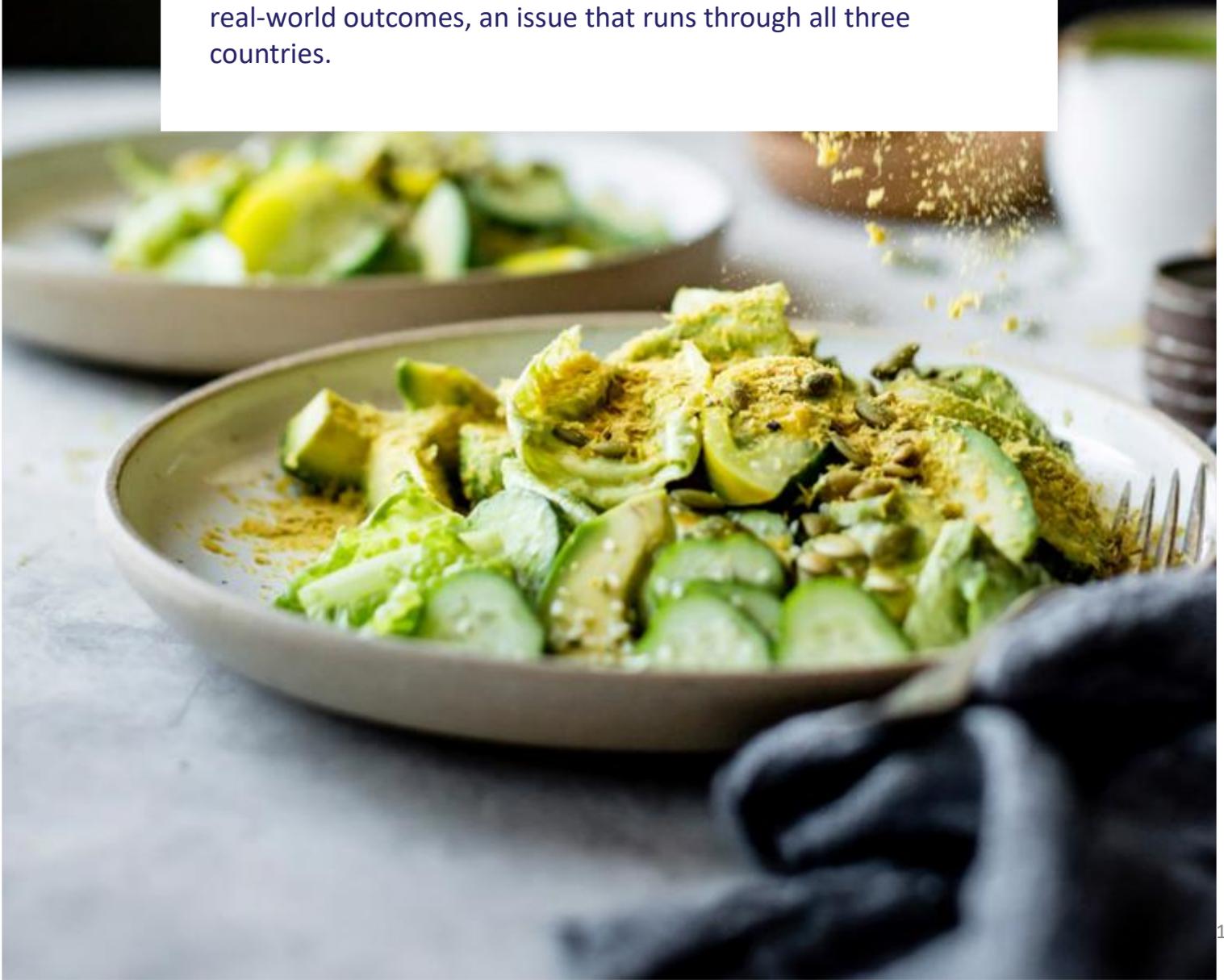
European food policy must engage with these new ideas if it is to remain relevant in an era of rapid global change. Questions around food sovereignty, cultural appropriation, and the ethics of food production need to be considered alongside more conventional policy concerns. The shift towards plant-based diets, sustainability, and digital food systems must be understood within their social and historical context, rather than being treated solely as technological or environmental challenges.

| THE NETHERLANDS, IRELAND AND PORTUGAL: AN OVERVIEW

The food sector is undergoing profound shifts, driven by the intersecting forces of digitalisation, social inclusion, and environmental change.

Across the Netherlands, Ireland, and Portugal, policymakers and industry leaders claim to be addressing these challenges, yet food systems remain deeply flawed. While digital tools are reshaping food production, distribution, and education, their implementation is uneven, with large agribusinesses benefiting more than small producers.

Social inequalities persist, particularly for migrant workers and low-income consumers, and environmental policies often fail to reconcile sustainability targets with economic realities. These contradictions highlight the gap between policy ambitions and real-world outcomes, an issue that runs through all three countries.



| DIGITALISATION, SOCIAL INCLUSION AND ENVIRONMENTAL CHANGE

Digitalisation: Who Really Benefits?

The Dutch and Irish food industries are investing heavily in automation, precision agriculture, and digital supply chain management, but the benefits are not evenly distributed. Large-scale farms and multinational food companies have the resources to integrate AI-driven analytics, blockchain traceability, and automated processing, while smaller farms, particularly in Portugal and Ireland, are being left behind. Digital tools are also transforming food education and consumer engagement, with apps, online learning platforms, and AI-driven sustainability tracking. However, these innovations often assume universal digital literacy and access, overlooking the reality that many rural farmers and migrant workers lack the necessary infrastructure or training. The risk is that digitalisation will reinforce existing inequalities rather than resolve them.

Social Inclusion: Food, Identity, and Inequality

Food is a powerful expression of culture and identity. Through cultivation, preparation, and sharing, culinary traditions preserve histories and reflect the values of diverse communities. Recipes and rituals shaped by migration, trade, and colonial legacies foster intercultural understanding and inclusion, making food a tool for connection and cultural heritage. Yet this celebration contrasts sharply with the reality of exploitation within food systems. In the Netherlands, Ireland, and Portugal, migrant workers—mainly from Eastern Europe, Nepal, India, and Brazil—are essential to agriculture but face poor housing, insecure contracts, and limited protections. Their vital contributions are often invisible and undervalued. Simultaneously, food poverty is rising, especially in urban areas, where low-income households struggle with affordability. While policies promote food security and nutrition, tangible solutions for those most in need remain scarce. To embrace food as a vehicle of inclusion, we must recognize its dual role: a rich cultural symbol and a site of structural inequality. Only by addressing both can we build fairer, more inclusive food systems.

Environmental Change: Policy vs. Practicality

The Netherlands and Ireland are at the centre of European agricultural climate debates, with pressure to reduce nitrogen and methane emissions. However, farmers argue that top-down regulations are prioritising targets over economic survival, sparking large-scale protests. Portugal, meanwhile, faces severe drought and soil degradation, yet its agricultural sector still relies on water-intensive crops and monocultures. Governments are promoting regenerative agriculture, carbon farming, and plant-based diets, but the actual structural changes needed—such as reforming CAP subsidies—remain politically sensitive and largely unaddressed.



AN ERA OF CHANGE

Food is deeply embedded in national identity, yet in Ireland, the Netherlands, and Portugal, traditional culinary narratives often mask the reality of global influences, migration, and commercialisation. Policymakers and tourism boards heavily market regional food heritage, yet the lived food experience is far more complex. Portugal's Mediterranean diet, Ireland's dairy and beef dominance, and the Netherlands' reputation for horticulture and dairy exports are central to each country's identity, but they are also shaped by colonial history, migration, and modern consumer trends. Food tourism has further complicated this relationship, with cities like Lisbon, Amsterdam, and Dublin commodifying local cuisine for international audiences while real food culture becomes increasingly detached from its roots.



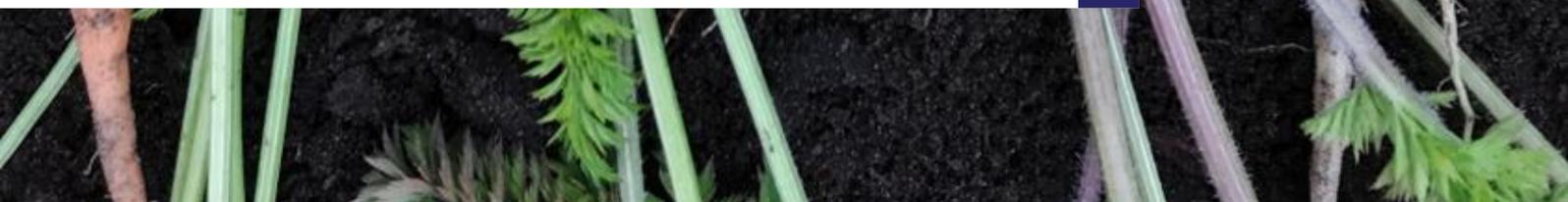


NEW IDENTITIES

The rise of **street food, fusion cuisine, and global supply chains** has shifted traditional diets. In **Portugal**, immigration from **Brazil, Nepal, and Cape Verde** has introduced **new flavours and cooking styles**, reshaping urban food landscapes.

Similarly, the **Irish food revival**—often presented as a return to heritage—owes much to the influence of **French, Italian, and Asian culinary techniques**.

The Netherlands, despite its **long colonial history**, has been slow to acknowledge the impact of **Indonesian, Surinamese, and Turkish cuisines**, even as dishes like **rijsttafel and kapsalon** become part of the mainstream food scene.





NEW IDENTITIES

Meanwhile, **food tourism** is increasingly detached from food production.

The **Dutch and Irish dairy industries**, for example, promote artisanal cheesemaking and craft dairy, yet both countries are dominated by **industrial-scale milk production geared towards export markets**.

Portugal's **wine industry**, a staple of food tourism, faces environmental threats such as **drought and shifting growing conditions**, but this is rarely part of the narrative sold to visitors. Tourists expect authenticity, yet what they consume is often a **highly curated version of food identity**, disconnected from the economic and environmental realities of food production.

04

THE NETHERLANDS



INTRODUCTION

The Dutch food and culinary sector is confronted with a mix of opportunities and constraints, ranging from an increased commitment in innovative sustainable food practices to labour shortages to declining student enrolment in hospitality programmes, to an increase in bankruptcies in the hospitality industry.

Strong societal support for sustainability and healthier eating aligns with national and EU policies yet cost increases and debt burdens depress a sector already in crisis after COVID 19, together with the resistance from traditional farming sectors and political divides, which can hinder progress.

We commence our section on the Netherlands with a PESTEL analysis, which reveals the critical factors shaping the Dutch food education sector, including political shifts, economic pressures, technological advancements, protein transition, and environmental awareness.

Addressing these dynamics is vital for developing a future-oriented food education system.



Photo Credit: Holland.com © Iris van den Broek via Rotterdam Partners

THE NETHERLANDS: A PESTEL ANALYSIS

Political: Dutch governments have pushed sustainability in food production. However, shifts in political leadership, including resistance from right-wing factions, could lead to policy reversals or delays, particularly in sectors like agriculture. This political uncertainty may also influence how food education policies are shaped and implemented.

Economic: The Netherlands has seen significant investment in sustainable food production, supported by EU subsidies. However, economic pressures - such as increased operational costs, rising food prices and inflation - could challenge sustainable practices, especially for small food businesses facing growing costs. The rise in business bankruptcies, notably in the Hotel, Restaurant, Café/Catering (HoReCa) sector, highlights these vulnerabilities.

Social: There is strong societal backing for sustainable food education, with a focus on healthier eating habits and reducing food waste. However, resistance from traditional sectors and the cultural stigma surrounding failure, as seen in the increasing bankruptcy rates, can impede widespread adoption of new practices, especially in food-related industries.

Technological: Advances in agricultural technology, including AI and inventory management software, are crucial to boosting sustainability and reducing food waste. However, the affordability of these technologies remains a concern, limiting their widespread adoption, particularly among smaller businesses facing financial strain.

Environmental: The drive for sustainable food practices is growing, spurred by awareness of environmental issues, particularly nitrogen pollution of water, soil and air. However, as highlighted by the rising costs in food sectors, intensive farming and food production practices continue to place significant strain on natural resources, complicating the transition to fully sustainable systems.

Legal: Dutch and EU regulations are increasingly enforcing sustainability in food practices. Yet, regulatory complexities and legal challenges, especially in sectors experiencing high bankruptcy rates, connected to shifts in political leadership, could slow the implementation of these policies, making it harder to integrate sustainable food practices into mainstream education and industry.

FOOD EDUCATION IN THE NETHERLANDS

The Netherlands offers various food education programmes aimed at enhancing food literacy, promoting healthy eating habits, and fostering a connection with food. A sample of higher education food-related courses is presented on the following pages. Primary and secondary examples include:

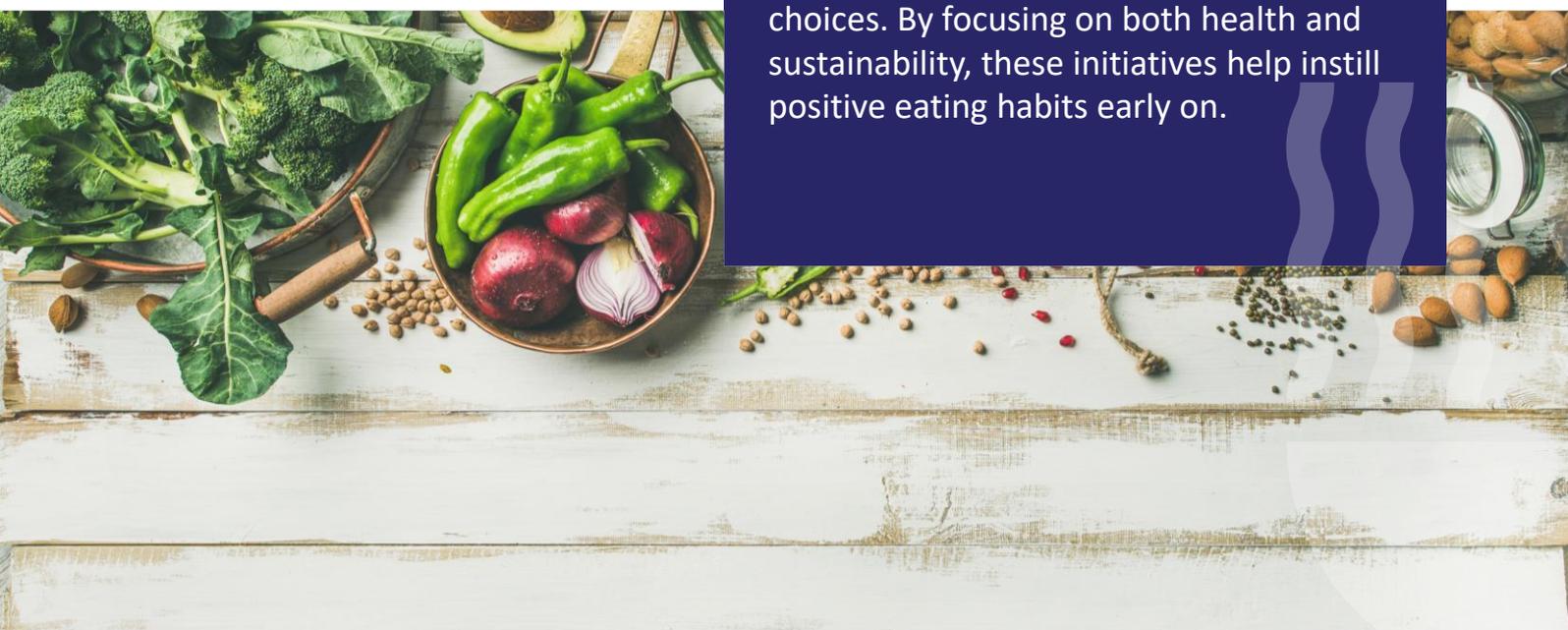
1. Jong Leren eten the “Young Learning to Eat” are programmes, in which the state, childcare, schools, local authorities and civil society organisations work together to get children and young people more in touch with knowledge and activities about food, so they can make healthy and sustainable choices themselves <https://www.jonglereneten.nl/>

2. Smaaklessen is the national school-based lesson programme about food and eating for 4–12-year-old primary

schoolchildren. Experiencing food is the central focus of this programme: by tasting, feeling, listening, smelling and looking the children investigate their food. Schoolchildren gain knowledge about food, nutrition and eating and experience making healthy and sustainable food choices www.smaaklessen.nl

IMPACT

These programs play a crucial role in improving food education in the Netherlands by addressing issues like childhood unhealthy eating habits and limited access to food education in schools. Through hands-on, practical food-related activities, they engage children and local communities in developing healthier eating habits and a deeper understanding of nutritious food choices. By focusing on both health and sustainability, these initiatives help instill positive eating habits early on.





FOOD EDUCATION IN THE NETHERLANDS

3. Voedseleeducatie Platform, the "Food Education Platform" is a Public-Private Partnership in which government, business, science, education and civil society organisations work together to provide objective education on food and nutrition to children

<https://www.smaaklessen.nl/nl/voedseleeducatie.htm>

4. EU-Schoolfruit encourages children to eat fruit and vegetables together in class. Participating schools receive three portions of fruit and vegetables every week for 20 weeks for all pupils. And all for free thanks to funding from the European Union www.euschoolfruit.nl



A SAMPLE OF FOOD EDUCATION OFFERINGS IN THE NETHERLANDS

Provider	Course name	Notes	Course link for further information
Wageningen University & Research	Food Quality Management	MSc	https://www.wur.nl/en/education-programmes/master/msc-programmes/msc-food-quality-management.htm
Wageningen University & Research	Nutrition & Health	MSc	https://www.wur.nl/en/education-programmes/master/msc-programmes/nutrition-and-health.htm
Wageningen University & Research	Food Technology	MSc	https://www.wur.nl/en/education-programmes/master/msc-programmes/msc-food-technology.htm
HAS Green Academy (hbo)	Food Innovation	Bachelor Programme	https://www.has.nl/hbo-opleidingen/food-innovation/
University of Amsterdam	Sustainable Food Systems	Bachelor Programme Minor	https://www.uva.nl/en/programmes/minors/sustainable-food-systems/sustainable-food-systems.html
Van Hall Larenstein University of Applied Sciences	Agricultural Production Chain Management	Master of Applied Sciences (MA)	https://www.vhluas.com/programmes/master/agricultural-production-chain-management/
Van Hall Larenstein University of Applied Sciences	Food Technology	Bachelor Programme	https://www.vhluas.com/programmes/bachelor/food-technology/
Van Hall Larenstein University of Applied Sciences	Animals, Society, and Business	Bachelor Programme	https://www.vhluas.com/programmes/bachelor/animals-society-and-business/

A SAMPLE OF FOOD EDUCATION OFFERINGS IN THE NETHERLANDS

Provider	Course name	Notes	Course link for further information
Wageningen University & Research	Executive MBA in Food & Agribusiness	MBA	https://www.wur.nl/en/show/executive-mba-in-food-agribusiness.htm
Vrij Universiteit Amsterdam	Food Systems & Sustainability	Module Master Course	https://research.vu.nl/en/courses/food-systems-amp-sustainability
Radboud Universiteit	Local Environment Change & Sustainable Cities	Master's specialization (Master Environment and Society Studies)	https://www.ru.nl/en/education/masters/local-environmental-change-and-sustainable-cities
Wageningen University & Research	Resilient Farming and Food Systems	MSc	https://www.wur.nl/en/education-programmes/master/msc-programmes/msc-resilient-farming-and-food-systems.htm
ROC van Amsterdam	Koken & Gastvrijheid in de Zorg	MBO vocational training (for adults)	https://www.rocva.nl/Voor-volwassenen/Sectoren/Horeca,-Bakkerij-Facilitair/Koken-Gastvrijheid-in-de-Zorg
ROC van Amsterdam	Start College Horeca and Voeding	MBO vocational training	https://www.rocva.nl/MBO-onderwijs/Sectoren/EntreeStart/Startcollege-Horeca-Voeding-Entree
Hotel Management School Leeuwarden	Gastronomy	Bachelor Programme Minor	https://www.nhlstenden.com/minoren/gastronomy

A SAMPLE OF FOOD EDUCATION OFFERINGS IN THE NETHERLANDS

Provider	Course name	Notes	Course link for further information
HBO Academy	Culinary Professional	2 years Associate Degree	https://www.hbo-academy.nl/opleidingen/culinary-professional
HAN University of Applied Sciences	Opleiding Food & Business	Bachelor Programme	https://www.han.nl/opleidingen/hbo/food-business/voltijd/?gad_source=1&gclid=CjwKCAjwtdi_BhACEiwA97y8BPOnHfsoNBjIKyY-A3v24xGhF99PNok29sVnGA_PJwPVK6OziprLBoCE2AQAvD_BwE
In Holland University of Applied Sciences	Food Commerce & Technology	Bachelor Programme	https://www.inholland.nl/opleidingen/food-commerce-technology-voltijd/?utm_source=google&utm_medium=cpc&utm_campaign=002-d100-afl-vt-food-commerce-and-technology-search&utm_term=food%20commerce%20and%20technology&gad_source=1&gclid=CjwKCAjwtdi_BhACEiwA97y8BAe_glaRf-jSfk8c1uHEOoNNF1IGldL9wxIXTML02m9fjYQS9x0MVB0CLXIQAvD_BwE

HO.RE.CA (Hotel, Restaurant & Cafe/Catering) CRISIS

The Dutch hospitality sector - i.e. HoReCa - is confronting a significant crisis marked by a surge in bankruptcies. After a period of post-pandemic recovery, the industry now faces escalating financial challenges that threaten its stability.

Escalation of Bankruptcies in the HoReCa Sector

Recent analyses by the bank ABN AMRO and Hotelschool The Hague project a concerning trend: the number of restaurant bankruptcies is expected to reach a record 450 in 2025. This figure represents more than double the 199 bankruptcies recorded in 2023. By November 2024, the number had already risen to 260, underscoring the accelerating rate of financial distress within the sector. [@ABN AMRO](#)

Contributing Factors to the Crisis

- **Rising Operational Costs:** Inflation has led to increased expenses for energy, rent, and wages. Since 2022, producer prices for food and beverages have surged by 17% and 20%, respectively, while collective labor agreement wages have climbed by 22%. These cost hikes have not been matched by revenue growth, squeezing profit margins.
- **Debt Accumulation:** Many establishments, especially smaller ones, are grappling with mounting debts. Approximately 17.8% of businesses with 5 to 50 employees report problematic debt levels. In contrast, 93.2% of medium-sized enterprises (50 to 250 employees) have their debts under control, highlighting the vulnerability of smaller players in the industry.



Photo Credit: Holland.com De Oude Markt in Enschede © Marketing Oost



HO.RE.CA (Hotel, Restaurant & Cafe/Catering) CRISIS

Wider Dutch Economic Context

The challenges in the HORECA sector mirror a broader trend across the Dutch economy. In 2024, 4,270 businesses and institutions, including sole proprietorships, were declared bankrupt—a 30.5% increase from the 3,272 bankruptcies in 2023. This marks the highest number of bankruptcies in eight years, with the peak of 9,431 occurring during the euro crisis in 2013 [@CBS](#)

Strategies for Mitigation and Recovery

- **Embracing Digitalization:** Adopting digital tools can enhance operational efficiency, reduce costs, and improve customer engagement.
- **Innovative Business Models:** Diversifying services, such as offering delivery or catering, can open new revenue streams.
- **Collaborative Efforts:** Forming alliances with suppliers and other businesses can lead to cost savings and shared resources.

While these measures offer potential relief, their successful implementation requires coordinated efforts from business owners, industry associations, and policymakers. Addressing the root causes of the crisis is essential to ensure the long-term sustainability of the Dutch ho.re.ca sector [@CBS](#)



Photo Credit: Holland.com © Iris van den Broek via NBTC Mediabank



PROTEIN TRANSITION AGENDA

The Netherlands is actively pursuing a **protein transition** to shift dietary patterns from animal-based to **plant-based proteins**, aiming for a healthier and more sustainable food system. The Dutch government has set a target to change the current protein consumption ratio from 60% animal-based and 40% plant-based to 40% animal-based and 60% plant-based.

To achieve this, a comprehensive master plan has been developed, focusing on **agriculture**, the **food industry**, and **consumer behaviour**. For farmers, the plan emphasizes the economic viability of cultivating protein-rich crops such as soybeans, peas, field beans, and lupins. This involves improving yields per hectare and enhancing disease resistance in plants.

Despite these efforts, consumer diets in the Netherlands still consist of approximately 61% animal-based proteins and 39% plant-based proteins. While there is a cautious shift towards more plant-based consumption, progress remains slow.

The transition also addresses environmental concerns, as reducing animal-based food consumption can significantly decrease greenhouse gas emissions and resource use. Studies indicate that replacing animal-based foods with plant-based alternatives can lead to a 25-55% reduction in greenhouse gas emissions. The Netherlands' protein transition agenda is a multifaceted approach involving policy initiatives, agricultural innovation, and consumer engagement to promote a shift towards plant-based diets, aiming to enhance public health and environmental sustainability.

[@RIVM.NL](#) [@WUR.NL](#) [@WUR.NL2](#) [@WUR.NL3](#)

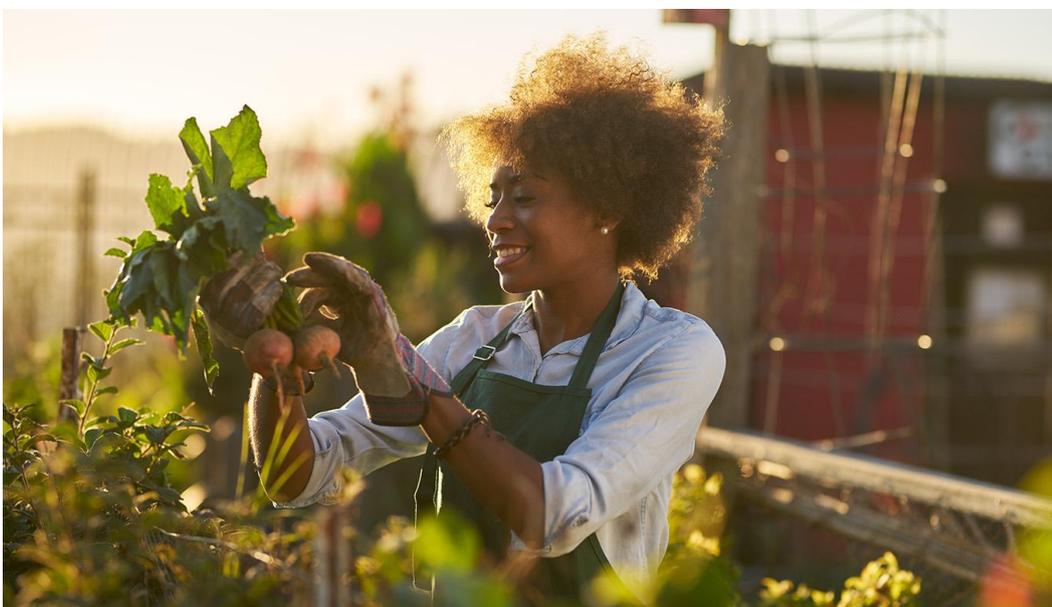


Photo Credit: Holland.com



FOOD WASTE REDUCTION INITIATIVES

The Dutch government is committed to reducing food waste as part of its goal to halve waste by 2030, aligning with the **UN's Sustainable Development Goals**. Approximately one-third of all food produced is wasted, prompting a national strategy targeting consumers, businesses, and policy innovation.

For consumers, the **Netherlands Nutrition Centre** promotes awareness and practical solutions, such as better purchasing and storage habits. Businesses are encouraged to reduce food waste by offering smaller portions and clearer expiration labels. The Dutch Alliance for Sustainable Food fosters collaboration between government and industry to cut waste throughout the supply chain.

Policy efforts include funding research on innovative waste prevention and repurposing strategies. These initiatives are part of the **National Circular Economy Programme 2023-2030**, which aims to develop sustainable business models and minimize food losses.

By integrating consumer behaviour, industry practices, and policy innovation, the Netherlands is working towards a more **sustainable and circular food system**.

[@Government.nl](https://www.government.nl) [@CirculairEconomie](https://www.circulair-economie.nl)



Photo Credit: DutchNews.nl



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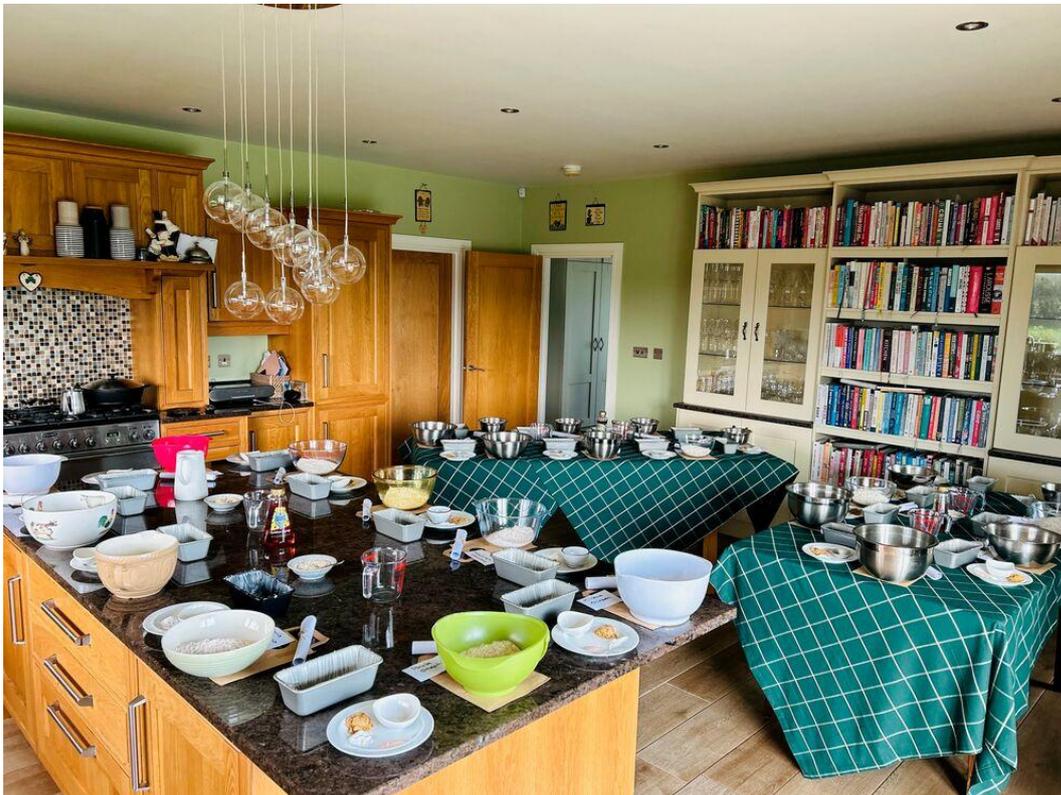
IRELAND



INTRODUCTION

Introduction

Ireland's culinary sector faces multifaceted challenges and opportunities, shaped by labour shortages, food education gaps, and the rise of food tourism. Labour shortages, particularly among chefs, strain the industry, exacerbated by unsociable hours and insufficient training facilities. Inadequate food education limits public understanding of nutrition and sustainability, while food tourism emerges as a vibrant economic driver, showcasing Ireland's rich culinary heritage. A PESTEL analysis reveals influencing factors: political policies on training, economic reliance on tourism, social trends towards healthier eating, technological advancements in food preparation, legal compliance with food safety, and environmental concerns about sustainable practices. Addressing these dynamics is vital for sector growth.



Mrs C's Home Kitchen, Dundrum, Co. Down, courtesy of Mrs C's Home Kitchen

Food Education in Ireland

Food education in Ireland faces numerous challenges, ranging from limited resources to societal attitudes toward nutrition and health. Despite increasing awareness of the importance of healthy eating, there are significant gaps in knowledge and practice.

One of the main challenges is the lack of a structured curriculum for food and nutrition education in schools. While subjects like Home Economics provide some exposure, they are not mandatory, leaving many students without basic cooking or nutritional knowledge. In 2022, only 47% of Irish post-primary schools offered Home Economics as a subject, limiting access to this vital area of education.

INTRODUCTION

Childhood obesity is another pressing concern, highlighting deficiencies in food education. A 2023 study by the Health Service Executive (HSE) revealed that approximately 1 in 5 children in Ireland are overweight or obese. This issue is exacerbated by insufficient emphasis on healthy eating habits in schools and the widespread availability of unhealthy, processed foods.

Funding and resources pose additional barriers. Many schools, particularly in disadvantaged areas, lack the facilities or materials needed to deliver practical food education effectively. According to Safefood, a public body promoting food safety and health, around 13% of schools in Ireland reported inadequate cooking facilities in a recent survey.

Cultural and societal factors also hinder food education. Busy lifestyles and the rise of convenience foods mean that children often grow up without learning how to prepare fresh, nutritious meals. Moreover, targeted marketing of unhealthy snacks and sugary drinks complicates efforts to promote healthier choices.

Addressing these challenges requires a multi partner approach, including integrating comprehensive food education into the national curriculum, increasing funding for schools, and promoting public awareness campaigns. Without such interventions, the long-term health and wellbeing of Ireland's population may be at risk.



Tracey's Farmhouse Kitchen, Killinchy, Co. Down, courtesy of Tourism Northern Ireland

IRELAND: A PESTEL ANALYSIS

Political: Ireland's government has shown increasing commitment to sustainability through policies such as the Climate Action Plan and Agri-Food Strategy 2030, promoting environmentally friendly food systems. However, political fragmentation and pressure from powerful agricultural lobbies—especially in the dairy and beef sectors—can hinder swift policy implementation. Uncertainty around EU Common Agricultural Policy (CAP) reforms also impacts long-term planning in sustainable food education and production.

Economic: Ireland benefits from strong EU funding which supports sustainable practices in agriculture. However, economic pressures, including inflation, rising energy costs, and global supply chain disruptions, can limit investment in sustainable transitions—especially for smallholders and SMEs in food and hospitality. Moreover, reliance on food exports may conflict with goals for local sustainable production.

Social: There is growing public awareness and demand for healthy, local, and sustainably produced food, supported by movements such as Origin Green and farm-to-fork initiatives. However, urban-rural divides and traditional food consumption habits may slow the adoption of new food education frameworks. There is also a skills gap in sustainability practices among food professionals, highlighting the need for curriculum reform and community-led education initiatives.

Technological: Ireland is investing in agritech and food innovation hubs (e.g., Teagasc and FoodWorks), supporting advancements in climate-smart agriculture and traceability. However, limited access to advanced technology for small producers, especially in rural areas, presents a barrier. Digital transformation in food education is uneven across institutions, with disparities in funding and infrastructure.

Environmental: Ireland faces significant environmental challenges, especially from agricultural emissions, nitrogen runoff, and biodiversity loss. These pressures intensify the need for sustainable practices. While there is momentum for reform, tensions exist between environmental goals and economic interests in livestock farming, which dominates land use. Climate-related extreme weather events also threaten food system stability.

Legal: Ireland is subject to evolving EU sustainability regulations, including the Green Deal and Farm to Fork Strategy. National policies are increasingly aligned, but regulatory complexity—especially in planning, subsidies, and compliance—can overwhelm small businesses and education providers. There are also legal hurdles in integrating sustainability into vocational training and food education, slowing curricular changes across institutions.

FOOD EDUCATION IN IRELAND

Ireland offers a variety of food education programmes aimed at enhancing food literacy, promoting healthy eating habits, and developing a deeper connection with food among its citizens. Food education includes micro credentials, primary, secondary course, full and short courses. We include a sample, detailed list of post-primary food education courses on the following pages. Some short course examples include:

1. GROW at School is an initiative by GIY (Grow It Yourself) Ireland that focuses on increasing food literacy in primary schools through hands-on growing and learning experiences. The programme aims to have a food garden in 50% of primary schools by 2026, impacting the lives of 250,000 children. [Giy](#)

2. Food Dudes is an award-winning, curriculum-linked programme managed by Bord Bia. It encourages children to consume more fresh fruits and vegetables through repeated tastings, rewards, and positive role

models. As of the 2022–2023 academic year, over 1,600 schools participated, with more than one million children having taken part since its inception. [Food Dudes](#)

3. The Literacy & Food Education (LEAF) Programme, spearheaded by GIY, empowers communities to grow their own food as a vital climate action. By turning libraries into hubs of food growing, LEAF aims to drive food growing as an individual climate action within the community. [Library LEAF](#)

4. Healthy Food Made Easy is a programme that delivers nutrition and cookery courses to help people maintain a healthier diet, plan meals on a budget, and prepare quick, nutritious meals. It has been delivered to various groups, including those with specific health needs, supported by funding from Safefood and the Healthy Ireland fund. [Wicklow Partnership](#)



A SAMPLE OF FOOD EDUCATION OFFERINGS IN IRELAND

Provider	Course name	Notes	Course link for further information
Longford Westmeath ETB	Food Preparation - Hospitality Operations	Mullingar (Level 5 QQI)	https://www.lwetb.ie/fet/# (LWETB, 2024)
Laois Offaly ETB	Food Science	Tullamore (Level 5 QQI)	https://www.loetb.ie/?sfcw-courseid=427285 (LOETB, 2024)
Laois Offaly ETB	Food, Beverage & Professional Cookery	Tullamore (VTCT Level 2)	https://www.loetb.ie/?sfcw-courseid=380889 (LOETB, 2024)
Laois Offaly ETB	Applied Science with Laboratory Techniques	Tullamore (Level 5 QQI)	https://www.loetb.ie/?sfcw-courseid=414395 (LOETB, 2024)
Laois Offaly ETB	Applied Science with Nutrition	Tullamore (Level 5 QQI)	https://www.loetb.ie/?sfcw-courseid=414390 (LOETB, 2024)
Laois Offaly ETB	Professional Cookery	Tullamore (Level 5 QQI)	https://www.loetb.ie/?sfcw-courseid=428356 (LOETB, 2024)
Laois Offaly ETB	Culinary Arts with Green Hospitality	Training Laois (Level 5 QQI)	https://www.loetb.ie/?sfcw-courseid=411627 (LOETB, 2024)
ATU Sligo	L6 Certificate in Validation Technologies (L6 Certificate in Validation Technologies)	Blended delivery	https://springboardcourses.ie/details/11081
Technological University of the Shannon	BSC Hons Nutrition and Health Science	Full time undergraduate BSC Hons	https://tus.ie/courses/us950/ , (TUS, 2024d)

A SAMPLE OF FOOD EDUCATION OFFERINGS IN IRELAND

Provider	Course name	Notes	Course link for further information
Technological University of the Shannon	Certificate in Culinary Skills	Available part-time via Springboard funding in Athlone	https://tusflexiblelearning.ie/culinary-arts/ (TUS, 2024c)
Technological University of the Shannon	Higher Certificate in Culinary Arts	Available both full time and part time in Athlone	https://tus.ie/courses/us930/ (TUS, 2024a)
Technological University of the Shannon	Bachelor of Arts in Culinary Arts	Available both full time and part time in Athlone	https://tus.ie/courses/us930/ (TUS, 2024b)
Technological University of the Shannon	Bachelor of Arts (Hons) in Culinary Entrepreneurship	Available both full time and part time in Athlone	https://tus.ie/courses/us930/ (TUS, 2024b)
Technological University of the Shannon	Certificate in Pastry, Baking and Desserts	Short course, available part-time in Athlone	https://tus.ie/courses/direct-entry-pastry-baking-desserts/ (TUS, 2024e)
Longford Westmeath ETB	Nutrition	Online (Level 5 QQI)	https://www.lwetb.ie/fet/# , (LWETB, 2024)
Longford Westmeath ETB	Catering	In Longford Town (Level 3 & 4 QQI)	https://www.lwetb.ie/fet/# (LWETB, 2024)
Longford Westmeath ETB	Food Preparation	In Mullingar (Level 5 QQI)	https://www.lwetb.ie/fet/# (LWETB, 2024)
Longford Westmeath ETB	Retail with Barista Training	In Mullingar (Level 4 QQI)	https://www.lwetb.ie/fet/# (LWETB, 2024)
Longford Westmeath ETB	Food Hygiene	Online (Level 5 QQI)	https://www.lwetb.ie/fet/# (LWETB, 2024)
Longford Westmeath ETB	Nutrition and Healthy Options	Mullingar (Level 3 QQI)	https://www.lwetb.ie/fet/# (LWETB, 2024)

LABOUR SHORTAGES

The Irish culinary sector is grappling with significant skills shortages, particularly among chefs. This deficit spans various levels, from commis chefs to senior and specialist roles. A report in 2015 by the Expert Group on Future Skills Needs (EGFSN) highlighted a persistent shortage of suitably qualified chefs, noting that many applicants lacked appropriate qualifications and the situation has since deteriorated, due to rising costs, COVID19 and Ireland's pursuit of a smart economy.

The Restaurants Association of Ireland (RAI) has emphasised the severity of this issue, reporting a deficit of approximately 5,000 chef trainees annually. Currently, about 1,800 chefs graduate each year from certified culinary training programs, which is insufficient to meet the industry's demands.



Photo Courtesy
Failte Ireland

Several factors contribute to these shortages:

- **Unsocial Hours and Long Working Days:** The demanding nature of culinary professions, characterized by irregular and extended working hours, deters potential entrants and leads to higher attrition rates among existing staff. Research@THEA
- **Inadequate Training Facilities:** The closure of CERT, the State Tourism Training Agency, in 2003, left a void in structured chef training. The RAI has advocated for the re-establishment of such dedicated training centers to bolster the pipeline of qualified chefs. TheTaste.ie
- **Competitive Job Market:** Other sectors offering more favorable working conditions and benefits attract potential talent away from the culinary field, exacerbating the skills gap.



CHANGING DEMOGRAPHICS

Ireland's demographic landscape has significantly transformed in recent decades, driven by increased immigration, the inflow of refugees and asylum seekers, and cultural diversity. The proportion of non-Irish residents has grown steadily. According to the Census 2022 Results published by the Irish Central Statistics Office, “20% of those living in Ireland in April 2022 (1,017,437 people) were born outside the State, which was up from 17% in 2016”. Individuals from diverse backgrounds comprise a substantial segment of the population, this shift influenced Ireland’s food culture.

Ireland’s Midlands has seen a notable rise in ethnic restaurants, international food stores and supermarkets. These establishments contributed to the diverse communities of the region and introduced Irish residents to new culinary traditions. Asian, African, Middle Eastern and Eastern European cuisines enriched local food options and inspired innovation within the hospitality sector in the region.

The changing demographics highlight the importance of integrating diverse perspectives into food education. As communities in Ireland become more multicultural, there is a growing need to equip educators and students with the right knowledge and skills.

By taking these demographic changes into account, food education programs can play an important role in promoting inclusivity, and mutual respect among diverse populations. Food Eco-Culture Edu aims to develop courses and materials that assist Ireland’s food sector with adapting to changing demographics, leveraging the changes as an opportunity to lead in culinary innovation, social inclusion, and sustainable practices.



Kin Khao Thai Restaurant in Athlone, Co. Westmeath, Ireland. Photo Courtesy Westmeath County Council



FOOD TOURISM

Connolly and O'Flynn (2023) note that Ireland's food industry has experienced a significant revival, supported by government initiatives like Fáilte Ireland's (2018) food tourism strategy. Recognising the economic and social importance of rural communities, the government has intensified its efforts to ensure their sustainability and resilience, particularly in the wake of the Covid-19 pandemic. This commitment is reflected in the *Our Rural Future: Rural Development Policy 2021–2025* (Government of Ireland, 2021), which emphasises key areas such as tourism, culture, heritage, and local farming and food production. Alongside these initiatives, the contributions of food historians and industry professionals play a vital role in celebrating Ireland's food heritage and sharing it with an international audience (Connolly and O'Flynn, 2023).

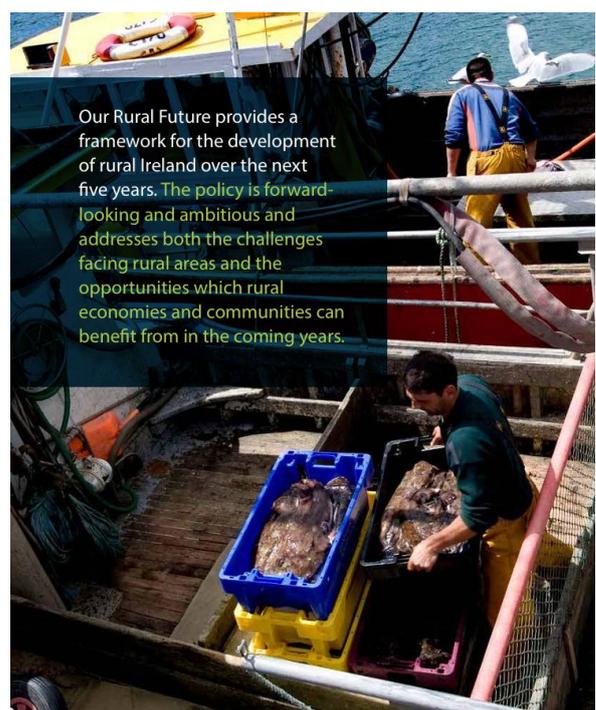
Food and beverage consumption accounts for 35% of all international tourism revenues. Ireland's food and beverage offering has a significant role to play in the tourism industry's recovery from the impact of COVID-19 (Failte Ireland, 2025).

Mulcahy (2017) notes that's spending on food and beverages by international tourists in Ireland is estimated to generate around €1.2 billion annually. When domestic tourism is included, this figure rises to

approximately €2 billion. This estimate is based on the proportion of tourist spending allocated to food, which accounted for over 34% in 2014 (Fáilte Ireland, 2015). This percentage is comparable to other destinations like Canada but significantly higher than South Africa (8%) and Australia (26%) (Mulcahy, 2014: 165).



Our Rural Future Rural Development Policy 2021-2025



Our Rural Future provides a framework for the development of rural Ireland over the next five years. The policy is forward-looking and ambitious and addresses both the challenges facing rural areas and the opportunities which rural economies and communities can benefit from in the coming years.

FOOD TOURISM

The variation between Ireland and these other countries may be attributed to differences in the development of tourism offerings, taxation levels, or the relative prices of food and beverage services. Regardless, food and beverage spending by visitors plays a crucial role in Ireland's economy, presenting opportunities for growth not only in tourism but also across other sectors. Given the significance of this market, the attitudes of tourists toward food warrant attention.



Belfast Food Tour, Taste and Tour NI, Co. Antrim - Embrace a Giant Spirit. Courtesy of Tourism Northern Ireland

Notably, 80% of tourists in Ireland regard themselves as “food positive,” meaning food enhances their satisfaction with the trip, even if it is not the primary reason for travel (Fáilte Ireland, 2014: 26) which aligns with findings from the UNWTO, which reported that 88.2% of respondents

view gastronomy as a strategic component in shaping a destination's image and brand (United Nations World Tourism Organisation, 2012: 12). Interestingly, only 10% of visitors, labelled as “Food Enthusiasts,” travel specifically for food-related experiences. However, their opinions are highly influential due to their roles as trendsetters and opinion leaders.

Research by the World Food Travel Association corroborates these findings, showing that a small but significant percentage of tourists (about 8%) travel primarily for culinary experiences (United Nations World Tourism Organisation, 2015; World Food Travel Association, 2015). In conclusion, while food is a critical economic driver for destinations, its significance extends beyond economic contributions to enhancing visitors' overall experiences (Mulcahy, 2017).



Booley and Butter Experience, Co. Armagh. Courtesy of Tourism Northern Ireland

06

PORTUGAL



INTRODUCTION

INTRODUCTION TO FOOD EDUCATION IN PORTUGAL

Food education in Portugal plays a crucial role in promoting healthier lifestyles, preventing diet-related diseases, and fostering sustainable food habits. As a country with a rich culinary heritage, Portugal struggles to balance traditional dietary practices with modern nutritional guidelines.

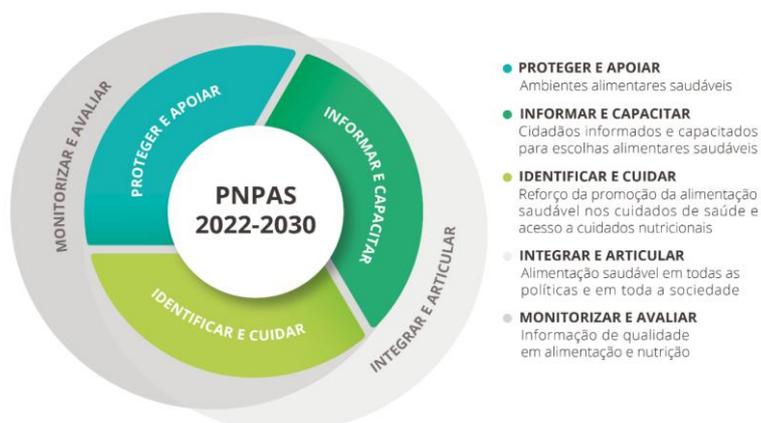
The government, educational institutions, and health organizations have implemented various initiatives to improve food literacy, particularly among younger generations. Food education in Portugal has gained increasing relevance in recent years, reflecting growing public health concerns and the need to promote sustainable dietary habits. While traditional Portuguese cuisine is rooted in the Mediterranean diet—often considered a model of balanced and health-promoting nutrition—the country faces significant challenges related to nutrition, food literacy, and public health outcomes.

The Current State of Food Education

Portugal has taken several institutional steps to promote food education, particularly in schools and communities. The National Programme for the Promotion of Healthy Eating (PNPAS), coordinated by the Directorate-General of Health (DGS), plays a central role in raising awareness about healthy food choices. Schools are key venues for implementing food education. Initiatives such as the “Programa Eco-Escolas”, school canteen reform, and integration of nutrition into curricula aim to increase awareness among children and adolescents. However, implementation is often inconsistent, and there is a lack of dedicated nutrition professionals across educational institutions.



Portuguese National Programme for the Promotion of Healthy Eating.
Photo Credit: alimentacaosaudavel.dgs.pt



INTRODUCTION

Main Food-Related Issues in Portugal

Despite efforts, Portugal faces a range of food-related challenges that affect various segments of the population:

- **Obesity and Overweight:** According to data from the World Health Organization and Portuguese health authorities, over 60% of the adult population and approximately 30% of children are overweight or obese. These numbers reflect poor dietary patterns, excessive intake of sugar, fats, and salt, and low levels of physical activity.
- **Nutritional Inequalities:** There are marked regional and socioeconomic disparities in dietary quality. Populations with lower income or education levels tend to consume more ultra-processed foods and have reduced access to fresh produce, reinforcing cycles of poor health.
- **Loss of Culinary Heritage:** The shift towards convenience foods and fast-food culture is contributing to the erosion of traditional cooking practices and intergenerational knowledge transfer. This trend impacts cultural identity and long-term food literacy.
- **Sustainability and Environmental Impact:** While food education initiatives increasingly acknowledge the need for sustainable food systems, actual integration of environmental awareness in food-related curricula remains limited. Excessive meat consumption and food waste are still prevalent in Portuguese households and foodservice in general.
- **Digital Misinformation:** The rise of unregulated dietary advice on social media has created confusion and spread pseudoscientific nutrition claims, particularly among younger audiences.



Bulhão Pato Clams.
Photo Credit: tasteatlas.com



Pork ribs with green faba beans.
Photo Credit: tasteoflisboa.com

FOOD EDUCATION IN PORTUGAL: A PESTEL ANALYSIS

FOOD EDUCATION IN PORTUGAL: A PESTEL ANALYSIS

To understand the broader influences on food education in Portugal, a PESTEL analysis—which examines Political, Economic, Social, Technological, Environmental, and Legal factors—provides a comprehensive framework. This analysis will highlight the key drivers and barriers affecting food education and its role in shaping the nation's health and sustainability efforts.

1. Political Factors

- **Government Policies:** The Portuguese government has implemented strategies to improve food literacy, such as the National Programme for the Promotion of Healthy Eating (PNPAS) by the Directorate-General of Health (DGS).
- **EU Influence:** As an EU member, Portugal follows European food safety and nutrition guidelines, which impact school meal regulations and public health campaigns.
- **School Meal Programs:** The government provides subsidized or free school meals to ensure children have access to nutritious food. Portugal has also strict regulations on school meals, banning sugary drinks and unhealthy snacks from public schools.

2. Economic Factors

- **Cost of Healthy Food:** The relatively high cost of fresh, organic, and locally sourced produce can hinder efforts to promote healthy eating, especially among low-income families.
- **Government & EU Funding:** Programs like EU School Fruit and Milk Scheme subsidize nutritious food in schools, improving accessibility.
- **Food Industry Influence:** The food sector, including multinational companies, impacts eating habits through marketing and pricing strategies.

3. Social Factors

- **Cultural Attitudes Toward Food:** Portuguese culture places a strong emphasis on food as a social and family activity, which can be leveraged to promote food education.
- **Obesity & Health Concerns:** Childhood obesity rates are high, prompting educational campaigns to promote healthier eating. Increasing awareness of the importance of nutrition and healthy eating, particularly among younger generations, drives demand for food education.
- **Demographic Changes:** An aging population and urbanization influence food consumption patterns and the focus of food education initiatives.

4. Technological Factors

- **Digital Tools and Platforms:** The use of apps, online courses, and social media campaigns to disseminate information about nutrition and healthy eating is growing.
- **Food Innovation & Research:** Advances in agricultural technology, such as precision farming and vertical farming, are integrated into food education to promote sustainability.
- **E-learning & Gamification:** Schools increasingly use interactive digital tools to teach about nutrition and healthy eating habits.

FOOD EDUCATION IN PORTUGAL

5. Environmental Factors

- Sustainability & Food Waste: There is growing emphasis on reducing food waste and sustainable eating practices in education.
- Climate Change Impact: Changes in agricultural production may affect the availability of certain traditional foods.
- Organic & Local Food Trends: Schools and programs encourage local and organic food consumption as part of food education.

6. Legal Factors

- Food Safety Regulations: Portugal enforces strict food safety and labeling laws that influence school meals and public education.
- Advertising Restrictions: Regulations limit junk food advertising to children, shaping their food choices.
- Nutritional Guidelines: The government provides mandatory nutritional guidelines for school meals and public institutions.

Conclusion

The PESTEL analysis of Portuguese food education reveals a dynamic interplay of factors that shape the sector. Political support and EU initiatives provide a strong foundation, while economic constraints and social challenges, such as obesity, highlight the need for continued investment. Technological advancements and environmental concerns drive innovation in food education, and legal frameworks ensure that education aligns with public health and sustainability goals. To strengthen food education in Portugal, stakeholders must address economic barriers, leverage cultural attitudes toward food, and integrate technology and sustainability into educational programs.



A SAMPLE OF FOOD EDUCATION OFFERINGS IN PORTUGAL

Provider	Course name	Notes	Course link for further information
Estoril Higher Institute for Tourism and Hotel Studies	Food Production in Catering	Bachelor Programme	https://www.eshte.pt/pt/artigos/licenciaturas/producao-alimentar-em-restauracao
Polytechnic Institute of Viana do Castelo (IPVC)	Gastronomy and Culinary Arts	Bachelor Programme	https://www.ipvc.pt/cursos/gastronomia-e-artes-culinarias/
University of Porto	Gastronomic Sciences	Master	https://sigarra.up.pt/fcnaup/pt/cur_geral.cur_view?pv_curso_id=18681
Polytechnic Institute of porto	Restaurant and Catering Management	Bachelor Programme	https://www.esht.ipp.pt/cursos/licenciatura/1007
Polytechnic Institute of Coimbra	Gastronomy	Bachelor Programme	https://www.ipc.pt/oferta-formativa/licenciatura-em-gastronomia/
University of Porto	Nutrition Sciences	Bachelor Programme	https://sigarra.up.pt/fcnaup/pt/cur_geral.cur_view?pv_curso_id=833
Nova University of Lisbon	Nutrition Sciences	Bachelor Programme	https://www.nms.unl.pt/pt-pt/ensino/cursos/licenciatura-em-ciencias-da-nutricao
University of Trás-os-Montes and Alto Douro (UTAD)	Nutrition Sciences	Bachelor Programme	https://www.utad.pt/estudar/cursos/ciencias-da-nutricao/
University of Trás-os-Montes and Alto Douro (UTAD)	Food Science	Bachelor Programme	https://eduportugal.eu/opcoes-de-estudo/ciencia-alimentar/

A SAMPLE OF FOOD EDUCATION OFFERINGS IN PORTUGAL

Provider	Course name	Notes	Course link for further information
Catholic University of Portugal	Nutrition Sciences	Bachelor Programme	https://esb.ucp.pt/pt-pt/licenciaturas/licenciatura-em-ciencias-da-nutricao
Lusophone University	Nutrition Sciences	Bachelor Programme	https://www.ulusofona.pt/ligboa/licenciaturas/ciencias-da-nutricao
European University	Nutrition Sciences	Bachelor Programme	https://www.europeia.pt/licenciatura-ciencias-nutricao/
Fernando Pessoa University	Nutrition Sciences	Bachelor Programme	https://www.ufp.pt/inicio/estudar-e-investigar/licenciaturas/ciencias-da-nutricao/
Catholic University of Portugal	Nutrition Sciences	Bachelor Programme	https://esb.ucp.pt/pt-pt/licenciaturas/licenciatura-em-ciencias-da-nutricao
Polytechnic Institute of Coimbra	Food Technology	Bachelor Programme	https://www.ipc.pt/en/oferta-formativa/bachelor-in-food-technology/
Catholic University of Portugal	Master's in Food Engineering	Master	https://esb.ucp.pt/en/masters/masters-food-engineering
Portuguese tourism Schools	in Kitchen Management and Production	Technological Specialization Course (level 4)	https://escolas.turismodeportugal.pt/curso/gestao-e-producao-de-cozinha/
Portuguese Professional Cooks Association	Cooking and Pastry	Professional Course (level 3)	https://acpp.com.pt/inscricoes/curso-profissional-cozinha-e-pastelaria/

A SAMPLE OF FOOD EDUCATION OFFERINGS IN PORTUGAL

Provider	Course name	Notes	Course link for further information
University of Algarve	Master's in Food Technology	Master	https://www.educations.com/study-abroad/university-of-algarve/master-in-food-technology-1043511
Nova University of Lisbon	Master's in Food Technology and Safety	Master	https://www.fct.unl.pt/en/education/course/masters-food-technology-and-safety
University of Porto	Master's in Consumer Sciences and Nutrition	Master	https://www.fc.up.pt/studyresearch/study-at-fcup/graduate_courses/consumer-sciences-and-nutrition/
Polytechnique Institute of Leiria	Master's in Innovation in Food Systems and Nutrition	Master	https://www.ipleiria.pt/en/course/innovation-in-food-systems-and-nutrition/
Polytechnique Institute of Cávado and Ave	Food Innovation and Culinary Arts	Short-cycle higher education (level 5)	https://etesp.ipca.pt/curso/innovacao-alimentar-e-artes-culinarias/
Polytechnique Institute of Leiria	Cooking and Food Production	Short-cycle higher education (level 5)	https://www.ipleiria.pt/curso/tesp-de-cozinha-e-producao-alimentar/
Polytechnique Institute of Viseu	Gastronomy, Tourism, and Well-Being	Short-cycle higher education (level 5)	https://essv.ipv.pt/cursos/ctesp/ctesp-em-gastronomia-turismo-e-bem-estar/
Polytechnique Institute of Porto	Catering and Restaurant Services	Short-cycle higher education (level 5)	https://www.ipp.pt/ensino/cursos/ctesp/esht/898
Professional School of Gaia	Cooking/Pastry	Professional Course (level 3)	https://epg.pt/cursos-ensino-secundario/hotelaria-restauracao-turismo/curso-cozinha-pastelaria/

CHANGING DEMOGRAPHICS

Portugal has undergone significant demographic changes in recent decades, influenced by factors such as population aging, migration patterns, urbanization, and socio-economic transformations. The country's fertility rate remains below replacement levels, and immigration has played an increasing role in shaping the workforce and social structures. Additionally, rural depopulation and the growing concentration of the population in metropolitan areas have impacted local economies and services.

Population Growth and Migration

As of December 31, 2023, Portugal's resident population was estimated at 10,639,726, marking an increase of 123,105 individuals from the previous year. This growth, observed for the fifth consecutive year, is primarily attributed to positive net migration, which has offset the negative natural increase resulting from higher death rates compared to birth rates (INE, 2024).

Changing Family Structures and Food Habits

The demographic structure reveals a significant aging trend. In 2023, 24.1% of the population was aged 65 or older, while only 12.8% were under 15. This imbalance is due to persistently low fertility rates and increased life expectancy. The total fertility rate in 2023 was 1.44 children per woman, below the replacement level of 2.1 (INE, 2024).

With declining birth rates and smaller household sizes, traditional home-cooked meals are being replaced by convenience foods, leading to concerns about nutritional quality and food literacy.

Schools and public programs may need to emphasize culinary education to ensure future generations maintain healthy eating habits.

Portugal's growing immigrant population brings new dietary habits, which can diversify the country's food landscape but also pose challenges in integrating different nutritional needs into public health programs. Food education programs should be inclusive of different cultural food practices while promoting balanced diets.

With Portugal focusing on sustainable agriculture and climate change adaptation, food education must emphasize environmentally friendly diets, such as the Mediterranean diet, plant-based nutrition, and reducing food waste.



FOOD TOURISM IN PORTUGAL: TRENDS, CHALLENGES AND OPPORTUNITIES

Food tourism in Portugal has experienced significant growth in recent years, driven by the country's rich culinary heritage, diverse regional specialities, and increasing global interest in gastronomy-focused travel. Portuguese cuisine, known for its seafood, traditional pastries, and wines, plays a central role in attracting tourists and promoting cultural exchange.

Portugal's food tourism industry is fueled by a combination of traditional culinary experiences and innovative food-related activities. Tourists seek authentic gastronomic experiences that go beyond conventional dining, such as food markets, wine tastings, and cooking workshops. According to Mira & Teixeira (2025), young travelers, particularly "foodies," are a driving force in food tourism, actively seeking new and unique culinary experiences.

Each region in Portugal offers distinct food traditions that appeal to tourists: Lisbon & Porto: Famous for pastéis de nata (custard tarts) and bacalhau (salted cod).

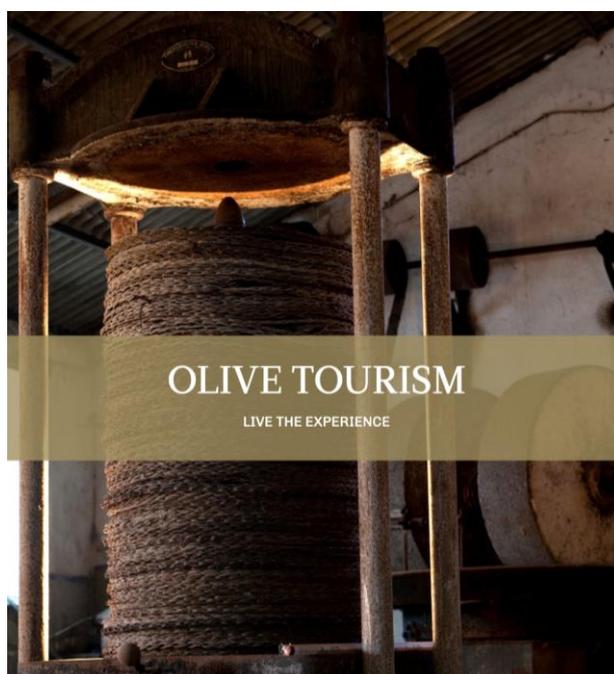
- Alentejo: Known for black pork (porco preto) and bread-based dishes.
- Douro Valley: A major destination for wine tourism, particularly Port wine experiences.
- Algarve: Offers seafood dishes like grilled sardines and cataplana.

Batista et al. (2024) highlight how food production and tourism are deeply intertwined, particularly in the Algarve, where local culinary traditions are preserved through agritourism.

Olive oil tourism is emerging as a key sector within food tourism in Portugal. The Alentejo and Trás-os-Montes regions produce some of the world's best olive oils, attracting tourists for olive oil tastings and farm visits. According to Pato (2024), olive oil tourism is a blend of tradition and innovation, offering immersive experiences to visitors.



Pastel de nata
Photo Credit: Tasteatlas.com



Olive Tourism Experience.
Photo Credit: Casaanadia.pt

FOOD TOURISM IN PORTUGAL: TRENDS, CHALLENGES AND OPPORTUNITIES

While food tourism contributes significantly to Portugal's economy, it also presents challenges, particularly regarding sustainability. Issues such as food waste, over-tourism in popular areas, and the environmental impact of mass tourism need to be addressed. Fernandes (2025) discusses how food tourism can be used as a differentiation strategy to promote sustainable tourism in UNESCO World Geoparks in Portugal.



Fishing for Tuna at the Azorean Sea.
Photo Credit: nationalgeographic.pt

With increasing interest in culinary tourism, Portugal is well-positioned to continue attracting food-driven travellers. Strategies for future growth include:

- 1) Strengthening local food branding by promoting PDO (Protected Designation of Origin) products such as Port wine, Serra da Estrela cheese, and Azorean tuna.
- 2) Expanding food tourism experiences, encouraging farm-to-table dining, cooking schools, and foraging tours.
- 3) Enhancing digital marketing efforts by engaging tourists through virtual food

experiences and online storytelling.



PDO Serra da Estrela Sheep Cheese.
Photo Credit: noticiasdacovilha.pt

Food tourism in Portugal is a dynamic and evolving sector that plays a crucial role in the country's tourism industry. From traditional dishes to wine and olive oil tourism, Portugal offers diverse and unique gastronomic experiences. However, sustainability and digitalization are key areas that require attention to ensure long-term success.



Douro Valley Vineyards.
Photo Credit: casadoarco.pt

07

THE FUTURE OF FOOD EDUCATION IN EUROPE



The Future of Food Education in Europe

This EU-funded project unites partners from the Netherlands, Ireland, and Portugal to explore how sustainability, cultural heritage, and technological innovation can shape the next generation of food education. By combining regional expertise, traditional food knowledge, and modern technology, the project fosters a collaborative and interdisciplinary approach to addressing global food challenges. A holistic approach to food education is essential to equip learners with the knowledge, skills, and tools needed to tackle these challenges while preserving local traditions and embracing emerging innovations.

Some current civil and academic debate around the future of food education revolves around key themes and areas of development

- *Sustainable Food Systems and the Green Transition*
EU Green Deal and Farm to Fork Strategy aim to build fair, healthy, and environmentally friendly food systems.
- *Reimagining Food Education*
Interdisciplinary education, integration of cultural and historical aspects.
- *Health, Nutrition, and Wellbeing*

Combat rising levels of diet-related illnesses (e.g., obesity, diabetes)

- *Food Justice and Equity*
Food insecurity in urban and rural communities, ensure equal access to nutritious and affordable food, and address social inequalities
- *Climate change and Biodiversity*
The role of food education in climate change mitigation and biodiversity protection.
- *Digitalisation and Innovation*
Embracing digital transformation in food education.
- *Inclusion and Identity in multicultural societies*
Recognition of food as a carrier of cultural identity, heritage, and belonging, and the need to value diverse culinary traditions in fostering inclusion.
- *Governance, Policy, and Multi-Stakeholder Collaboration*
Engagement of educators, policy-makers, industry, and communities.



Photo courtesy NU Flower



The Future of Food Education in Europe

What do we advocate

We urge that the future of food education should keep pace with the rapidly evolving food industry, integrate cross-disciplinary approaches, increase industry engagement, and adapt digital innovation.

We remind educators to recognise that the future of food education is more than food safety, nutrition and economic viability, it also emphasises cultural and historical aspects such as identity, migration, colonial legacies, and social inclusion.

We commit to shaping the future of food education to tackle issues that are common in Europe, such as labour shortage and changing demographics.



Photo courtesy Children North East



08

CASE STUDIES



SDGs

The Sustainable Development Goals (SDGs) are a set of 17 goals adopted by all United Nations Member States in 2015. 17 global goals serve as an urgent call to action for all countries, both developed and developing, to work together in a global partnership. These strategies promote health, education, economic growth and reduced inequality. They want to fight against global warming and preserving oceans and forest.

These goals form the foundation of the United Nations' 2030 Agenda for Sustainable Development, aiming to foster a more equitable and sustainable world for current and future generations. Each goal represents a critical area where international cooperation can make a significant change.

Food Eco-Culture EDU aims to align the project with SDG goals to promote the values behind each goal.

The **Case Studies** presented in this section demonstrate the close ties between the SGD goals and what the project promotes.

Here are the 17 SDGs goals :

SUSTAINABLE DEVELOPMENT GOALS

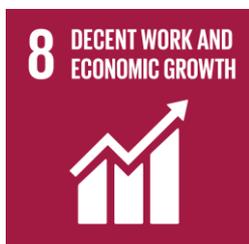


SDGs



No Poverty: Food Eco-Culture Edu promotes cultural diversity and social inclusion, helping reduce poverty through sharing and development among people with socially and economically disadvantaged backgrounds. For example, the **3 Kitchen project** demonstrated the role of food culture as both a connector and a vehicle for empowerment, especially for marginalised individuals and communities.

Quality Education: The project encourages innovative, inclusive, and interdisciplinary food education that addresses the evolving needs of the food industry. For example, the **Midlands Regional Food & Drink Skills Needs Audit** examines skills gaps, challenges, and opportunities in the food sector, offers insights and recommendations.



Decent Work and Economic Growth: The project connects food education with the food industry that aims to prepare students for meaningful, future-focused careers in the evolving food industry.

Industry, Innovation and Infrastructure: The project fosters innovation in food education through digital innovation and collaboration with industry and community partners.



Reduced Inequalities: The project promotes social inclusion and cultural exchange, particularly for marginalised groups. For example, the **Cork's Winter Solidarity Dinner** brought people with diverse backgrounds together, helped bridge social gaps and reduced inequalities.



SDGs

Sustainable Cities and Communities: By linking food education to community and helping migrants, refugees, and newcomers blend into local communities, the project contributes to resilient, inclusive and sustainable cities and communities. For example, the **KETI KOTI Festival & Tables** initiative strengthens local communities and makes them more sustainable.



Responsible Consumption and Production: Food Eco-Culture Edu promotes sustainable food choices, reducing waste and encouraging ethical and responsible sourcing and consumption. For example, the **“Portuguese Food Wheels”** recommends the consumption of daily portions with a strong emphasis on plant-based foods.

Partnerships for the Goals: The project is built on collaboration across European institutions, combining knowledge, research, and practice to achieve shared goals.



SDGs



Sustainable
Development
Goals



CASE STUDY 1: THE DUTCH CUISINE MOVEMENT

The *Dutch Cuisine movement* aspires to redefine the Netherlands' culinary identity by emphasizing sustainability, health, and cultural pride and influencing hospitality sector and food education at all levels [@DutchCuisine](#)

Cultural Identity and Perception

Historically, Dutch cuisine has been perceived as simple and unremarkable. Traditional meals often consist of basic combinations like boiled potatoes, vegetables, and meat, leading to perceptions of monotony. This simplicity has contributed to a lack of international recognition and a diminished sense of culinary pride among the Dutch themselves. The movement seeks to counteract this by highlighting the richness of Dutch culinary traditions and ingredients. However, altering entrenched perceptions requires more than promotion; it demands a cultural shift in how food is valued and experienced [@SabrinaDinmohamed](#)

Sustainability and Environmental Impact

The Netherlands is a significant global food exporter, a status that has led to environmental challenges, including excessive nitrogen and greenhouse gas emissions. Dutch Cuisine's emphasis on local, seasonal produce and reduced meat consumption aligns with efforts to mitigate these issues. Yet, the movement faces the task of influencing both consumers and producers –as well as the hospitality sector and food education at all levels - to adopt practices that prioritize environmental sustainability over industrial efficiency. This transition necessitates systemic changes in agricultural policies and consumer habits, which can be met with resistance due to economic and cultural factors [@DutchCuisine](#)



Photo Credit: Dutch-Cuisine.nl

CASE STUDY 2:

KETI KOTI FESTIVAL & TABLES

Keti Koti, meaning "the chain is cut" in Sranantongo (i.e. Suriname's creole language), is an annual Dutch celebration on July 1st that commemorates the abolition of slavery in Suriname and the Dutch Antilles in 1863. *Keti Koti* serves as a platform for dialogue on the enduring impacts of colonialism, with food playing a pivotal role in fostering social inclusion and decolonizing practices [@KetiKotiTafel](#) [@PublicHistoryAmsterdam](#)

Central to this initiative are the *Keti Koti Tables*, organized by the *Keti Koti Tafel Foundation*. These gatherings bring together individuals from diverse backgrounds to share a ritual meal, facilitating conversations about the Netherlands' slavery past and its contemporary repercussions.

The use of food in these events is intentional and profound. Sharing a meal creates a communal space where participants can reflect on historical injustices and their present-day manifestations. This act of communal dining serves as a decolonizing practice, challenging historical narratives and fostering mutual understanding. By engaging in these shared experiences, individuals confront internal and societal conflicts arising from the colonial past, paving the way for healing and inclusion.

Keti Koti and the accompanying *Keti Koti Tables* utilize food as a conduit for dialogue, reflection, and transformation. Through these gatherings, the Netherlands confronts its colonial legacy, fostering a more inclusive society that acknowledges and learns from its history.

[@UniLeiden](#) [@UniMaastricht](#) [@UniRotterdam](#)



Photo Credit: KetiKoti Tafel @OneWestFriesland



CASE STUDY 3: THE IRISH MIDLANDS

The **Food Eco-Culture Edu** project explores the connections between **food, environmental sustainability, and cultural identity**. Ireland's Midlands region, comprising County Laois, Longford, Offaly and Westmeath, offers a suitable case study. It is home to a dynamic food and drink sector, shaped by its geography, culinary heritage, and a strong emphasis on sustainability.

Historically, the **Midlands region** was a centre of peat harvesting for heat and electricity generation which caused severe environmental degradation. Bord na Móna as a state company played a key role in this tradition and contributed to regional employment. With the shift away from fossil fuels to more sustainable and renewable energy, the Midlands region is undergoing significant economic and environmental transformation. The EU Just Transition Fund is supporting initiatives to restore biodiversity, promote renewable energy, and develop industries which support and provide new employment opportunities in the region. The tourism, food and drink sectors are some of the key areas for development.

The **Midlands Regional Food & Drink Skills Needs Audit** was completed by the Technological University of the Shannon (TUS) in

collaboration with the Midlands Regional Enterprise Plan (MREP). The audit examines skills gaps, challenges, and opportunities in the food and drink sector in Ireland's midlands region. It offers insights and recommendations to bolster the Irish food and drink industry regionally and nationally.



Key Findings of the Audit

The report highlights skills shortages in food safety, sustainability, digital literacy, and management, with many businesses struggling to recruit and retain staff. Businesses in the region have a strong willingness to collaborate, and sustainability efforts face barriers such as high costs for eco-friendly practices and limited access to local ingredients. The Midlands food and drink sector has some well-known brands such as Tullamore D.E.W., Glenisk, and Kilbeggan Distillery, however, strong food tourism offerings and a well-defined food identity need to be developed.



CASE STUDY 3: THE IRISH MIDLANDS

Eight Key Recommendations

1. Design and deliver a **LEARNING JOURNEY** for influential stakeholders from the Midlands region to visit and learn from a good practice destination.
2. Establish a **CENTRALISED WEBSITE** promoting all available food related courses in the region.
3. **INVEST IN FOOD TOURISM PRIDE** in the region.
4. Establishing additional **MARKETS AND EVENTS** in the region.
5. Design and deliver, short and pointed **TRAINING COURSES ON FOOD VISITOR ATTRACTION DEVELOPMENT**.
6. Develop a **SHORT-ADVANCED PROGRAMME (SAP)** on The Future of Food in Regional Europe led by Technological University of the Shannon in conjunction with local industry and TUS' RUN-EU partners.
7. Fund A **POST-GRADUATE RESEARCH STUDENT** - Support post-graduate research in food and drink policy development in the Midlands region through funding a collaborative

research project between a regional authority in the sector, TUS and RUN-EU partners.

8. **RETAIN EXISTING PROVISION OF FOOD AND DRINK RELATED SKILLS PROGRAMMES** in the region even during a low demand cycle



The audit equips people with the knowledge and skills to realise opportunities to develop local and regional food identity and food pride, to focus on improving food quality and ultimately the quality of life, to focus on people's health and well being, and to promote sustainable and regenerative activities, for example, restoring the destroyed landscape, transforming the harvested bogs and peatlands into unique and biodiverse tourism attractions, consequently, these attractions provide development opportunities for food and drink industries.



CASE STUDY 4: FOOD AND SOCIAL INCLUSION IN CORK

This case study is based in Cork city which is the 2nd largest city in the Republic of Ireland after Dublin. Here are some basic information and facts about Cork in terms of population, culture and food and drinks. Cork was the European Capital of Culture for 2005, and in 2009, it was included in the Lonely Planet's top 10 "Best in Travel 2010". Cork was described as being "at the top of its game: sophisticated, vibrant and diverse". According to the 2022 census, the population of the city and suburbs were 74.4% white Irish, which means that more than 25% of the population was not originally from Ireland. The city has many local traditions in food, including crubeens, tripe and drisheen, which were historically served in eating houses like those run by Katty Barry in the mid-20th century.



Photo Courtesy: Leonardo Hotels

The English Market sells locally produced foods, including fresh fish, meats, fruit and vegetables, eggs and artisan cheeses and breads. The city is also home to the Heineken Brewery which brews

Murphy's Irish Stout and the nearby Beamish and Crawford brewery which have been in the city for generations. And another interesting fact is that 45% of the world's Tic Tac sweets are manufactured at the city's Ferrero factory.

On the 11th of December 2024, Cork hosted the **Cork Winter Solidarity Dinner** organized by the Refugee and Migrant Solidarity Ireland (RAMSI) group, attended by more than 100 guests including migrants, refugees and Irish citizens. Some traditional international food such as Maklouba and mutton biryani were among the dishes on offer, musicians were playing traditional Irish music at the dinner.

For some of those international guests, it was the first opportunity they have had to dine outside of the direct provision centre they live in, and also to enjoy the cuisines of their native counties — from Palestine to different parts of Africa.

The community hall in Cork City where the dinner took place transformed into a Christmas dining hall as migrants, refugees and Irish citizens gathered to share stories of their lives, cuisines from different parts of the world, music, and laughter.



CASE STUDY 4: FOOD AND SOCIAL INCLUSION IN CORK

The dinner also provided a space to make new friends, with icebreaker games, designed to get people mixing.

Alina Marinescu and her three sons were among the attendees, they had previously been living in emergency accommodation for nearly two years. She told a local newspaper that she finally found “stability” and had received the keys to her new home for herself and her kids. She also told the paper how much she was looking forward to moving into the new space.

Another attendee Shadia, a barrister qualified in Uganda, said the Solidarity Dinner allowed her to help out, meet new people and express her love for food. She moved to Ireland in 2021 to do a Master's degree and initially had “no intention to stay” after receiving her degree, and after meeting “amazing people” she decided that Ireland would be her home.

Mohammad, who works as a surgeon in a hospital in Cork City, said that in the half hour he was at the dinner he had met 10 new people. “That’s more than I have met in the last year,” he said.

Gloria Zulu, a musician based in

Cork, said that the events and organisers “are so welcoming”. “I get our African taste with our food, I love the community and I feel at home,” she told the paper. “I feel the warmth of the community here and the people, and I am thankful for the continuous invitation.”

Samanta Zina, an organiser for the event, added that these dinners give people in direct provision “possibility and hope”, to make new friends and connections.

This dinner brought people with diverse backgrounds together, helped bridge social gaps, celebrated cultural diversity, and created a sense of belonging. This case study provided a powerful example of how food can foster social inclusion, cross-cultural exchange, and community resilience.

Cork's Winter Solidarity Dinner helps more than 100 migrants and refugees make new friends



(Left to right) Saifan, Aabidah Aamall and Goodness Ali at the Cork Winter Solidarity dinner that was held at the Ardfallen Centre, Ballinlough, Cork. Picture: David Creedon



CASE STUDY 5:

FOOD BANK (BANCO ALIMENTAR)

The Portuguese Food Bank Against Hunger (Banco Alimentar Contra a Fome) is a non-profit organization established in 1991 to combat food waste and provide food assistance to those in need across Portugal. Operating through a network of 21 regional food banks, the organization collaborates with various social solidarity institutions and relies heavily on volunteer work to fulfil its objectives.

History and Mission

Since its inception, the Food Bank has focused on collecting surplus food from the agro-food industry, farmers, distribution chains, and wholesale markets. These efforts aim to prevent food waste and ensure that edible products reach individuals and families facing food insecurity. The organization operates under the principle of "local collection, local help," fostering proximity between donors and beneficiaries and promoting community solidarity.

Major Campaigns and Initiatives

The Food Bank organizes biannual national food collection campaigns, typically held over weekends in approximately 2,000 commercial establishments across 21 regions. These campaigns mobilize tens of thousands of volunteers who encourage shoppers to donate food items. For instance, in a recent campaign, over 40,000 volunteers participated, collecting more than 2,292 tons of food—a 10% increase compared to the previous year.

In addition to physical collections, the organization offers alternative donation methods such as the "Ajuda Vale" campaign, where donors can purchase vouchers for specific food items at participating supermarkets. An online donation platform, www.alimentestaideia.pt, allows individuals, including those residing abroad, to contribute conveniently.

Statistics and Impact

The Food Bank's activities extend throughout the year. In the previous year, the 21 operational food banks distributed approximately 28,905 tons of food, valued at around 44.2 million euros, averaging 115 tons per working day. This assistance reached about 400,000 individuals through partnerships with 2,600 social solidarity institutions, providing either food baskets or prepared meals.

These efforts are particularly significant given that, according to recent data from the National Statistics Institute (INE), 17% of the Portuguese population was at risk of poverty in 2022, with over 2 million people facing poverty or social exclusion. The Food Bank's role is crucial in mitigating the effects of poverty and promoting social cohesion.



CASE STUDY 5: FOOD BANK (BANCO ALIMENTAR)

Recognition and Importance

The Food Bank's commitment to reducing food waste and alleviating hunger has positioned it as a vital component of Portugal's social support network. Its collaboration with a wide array of stakeholders, including volunteers, donors, companies, and public entities, exemplifies a collective effort toward a more just and cohesive society. The organization's ability to adapt and innovate, such as incorporating online donation platforms, ensures its continued relevance and effectiveness in addressing food insecurity.

The Portuguese Food Bank Against Hunger plays an indispensable role in combating food waste and providing essential support to vulnerable populations. Through its extensive network, dedicated volunteer base, and innovative campaigns, it not only addresses immediate nutritional needs but also fosters a culture of solidarity and community engagement across Portugal.



Food Bank Initiatives
Photo Credit: bancoalimentar.pt

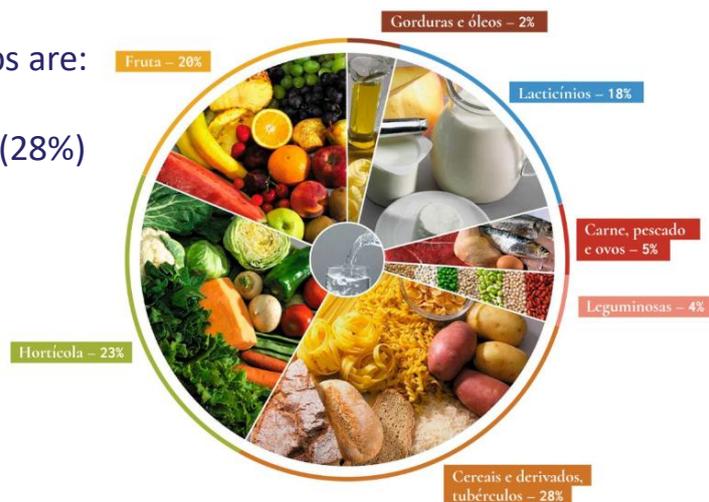


CASE STUDY 6: THE PORTUGUESE FOOD WHEEL

The Portuguese Food Wheel, known as Roda dos Alimentos, is a practical guide to healthy eating designed to promote balanced and varied nutrition. It is divided into seven food groups, each representing a portion of what should be consumed daily based on its nutritional value.

The Portuguese Food Wheel groups are:

1. Cereals and derivatives, tubers (28%)
2. Vegetables (23%)
3. Fruit (20%)
4. Dairy products (18%)
5. Meat, fish, and eggs (5%)
6. Legumes (4%)
7. Fats and oils (2%)



The Portuguese Food Wheel.
Photo Credit: alimentacaosaudavel.dgs.pt

The Portuguese Food Wheel recommends the consumption of daily portions from all groups, with a strong emphasis on plant-based foods such as vegetables, fruits, legumes, and whole grains. In comparison with other food models, the Portuguese Food Wheel strongly aligns with the Mediterranean diet, encouraging local, seasonal, and minimally processed foods. It also implicitly supports sustainability through its low recommendation of animal-based products, particularly red meat and saturated fats.

The Food Wheel is used widely in schools, healthcare settings, and public campaigns, serving both educational and policy functions. It also plays a role in school meal planning and nutrition education in public institutions.

However, challenges remain in terms of its adoption in everyday life, particularly among younger populations exposed to modern fast food diets, high in ultra-processed foods. Socioeconomic disparities, food marketing, and the convenience food industry often act as barriers to full adherence. Still, it is widely adopted in Portuguese school programs.



CASE STUDY 7:

THE 3 KITCHENS ERASMUS+ PROJECT

Project Overview

The *3 Kitchens* project is a European initiative that leverages the power of cooking and culinary exchange to foster **social inclusion, intercultural dialogue, and community empowerment**. Through the creation of three distinct "kitchen" environments—**home kitchen, community kitchen, and training kitchen**—the project reimagines food spaces as inclusive learning and sharing platforms for people of all backgrounds.

Aims & Objectives

- **Promote social inclusion** through shared food experiences.
- Support the integration of **migrants and refugees** into host communities.
- Provide **intercultural learning** opportunities via cooking traditions.
- Develop **innovative training tools** that combine food culture with soft skills development.

Target Groups

- Migrants, refugees & newcomers to local communities.
- Community workers, volunteers & educators.
- Local citizens interested in intercultural exchange.

Key Activities

- **Storytelling through food:** Participants share recipes & personal stories linked to their culinary heritage.
- **Intercultural cooking sessions:** Community members prepare and eat meals together in a welcoming space.
- **Training tools:** Creation of multimedia educational content that supports informal learning and soft skills development through culinary activities.

Impact & Contribution to Food Culture & Inclusion

1. Food as a Universal Language

By focusing on the shared act of cooking and eating, *3 Kitchens* bridges cultural gaps and promotes empathy. The kitchen becomes a neutral space where cultural identity is expressed and respected.

2. Empowerment through Skills

Participants not only share recipes but also gain confidence, language skills, and social capital—essential elements for inclusion and participation in society.

3. Community Connection

The project strengthens local communities by creating inclusive spaces that welcome diversity, encourage mutual learning, and combat social isolation.

4. Preservation of Culinary Heritage

The storytelling approach preserves and celebrates diverse food traditions, recognizing their value as part of Europe's shared cultural heritage.

Conclusion

The *3 Kitchens* project demonstrates how an everyday act like cooking food can be a powerful tool for **inclusion, cultural exchange, and informal education**. It highlights the role of food culture as both a connector and a vehicle for empowerment, especially for marginalised communities. It serves as a replicable model for community engagement across Europe and beyond.



3 Kitchens

Volunteer • Seek Employment • Become an Entrepreneur

Website: <https://3kitchens.eu/>

09

CONCLUSION



CONCLUSION

The report touched on European Food policies, highlighted the challenges facing food education and the importance of driving policy changes in the evolving food industry across Europe.

It went on and analysed the situation and challenges of food education and the food industry in the Netherlands, Ireland and Portugal; it provided an overview of the food education currently available in the 3 countries; it also discussed the trends, challenges and opportunities of food tourism of the 3 countries.

The report stressed that future food education in Europe must adapt to the changing environmental, technological, and social landscapes.

The report presented case studies from the Netherlands, Ireland and Portugal that showcased initiatives and activities which demonstrated how food can be utilised in education and in promoting the values of UNSDG goals.

The report has demonstrated that transformative change in food education is necessary and possible.

By embedding interdisciplinarity, social inclusion, sustainability, and digital innovation, the project offers a framework for reimagining the role of higher education institutions in shaping the future of food education, which equip the next generation with the skills and values that take into account cultural, environmental and human dimensions of food, creating a future that is more just, more sustainable, and more connected.



Coffeetime Cafe,
Kilmacrenan Co Donegal.
Photo courtesy Fáilte
Ireland



10

REFERENCES



REFERENCES

Dutch Food and Sustainability Policies

- Dinmohamed, S. (2023). *Bread, ugly gravy and boring parties: Encounters with Dutch food practices*. In Post-Migration Experiences, Cultural Practices and Homemaking: An Ethnography of Dominican Migration to Europe (pp. 119-136). Emerald Publishing Limited.
- Dutch Cuisine. (n.d.). *Dutch Cuisine*. Dutch Cuisine. <https://dutch-cuisine.nl/en/>
- Erasmus University Rotterdam. (n.d.). *Keti Koti Dialogue Table at EUR*. Erasmus University Rotterdam. <https://www.eur.nl/en/news/keti-koti-dialogue-table>
- Keti Koti Table. (n.d.). *Keti Koti Table: Dinner with a twist*. Keti Koti Table. <https://www.ketikotitafel.nl/keti-koti-table>
- Leiden University. (2023, September 12). *Keti Koti Table at Leiden University*. Leiden University. <https://www.staff.universiteitleidenn.nl/events/2023/09/keti-koti-table>
- Maastricht University. (n.d.). *Keti Koti Dialogue Table*. Maastricht University. <https://www.maastrichtuniversity.nl/events/keti-koti-dialogue-table>
- UvA Public History Blog. (2023, October 12). *It's getting personal: Dinner at the Keti Koti Table*. University of Amsterdam. <https://publichistory.humanities.uva.nl/blog/its-getting-personal-dinner-at-the-keti-koti-table/>
- Rijksoverheid. (n.d.). *Circulaire economie*. Government of the Netherlands. <https://www.rijksoverheid.nl/onderwerpen/circulaire-economie>
- Rijksoverheid. (n.d.). *Cutting down on food waste*. Government of the Netherlands. <https://www.government.nl/topics/food/cutting-down-on-food-waste>
- Rijksoverheid. (2022, June 3). *Nationale Eiwit Strategie*. Government of the Netherlands. <https://www.rijksoverheid.nl/documenten/kamerstukken/2022/06/03/nationale-eiwit-strategie>

REFERENCES

Food Culture and Tourism (Ireland)

- Connolly, M., & O'Flynn, R. (2023). *Harnessing Ireland's food heritage – The role of the artisan food producer in Ireland's food tourism offering*. **European Journal of Food, Drink, and Society**, 3(1), Article 5. <https://doi.org/10.21427/5MBN-4R93>
- Fáilte Ireland. (2014). *Enhancing Irish food experiences: The way forward. Food tourism activity plan 2014–2016*. Dublin: Fáilte Ireland.
- Fáilte Ireland. (2015). *Tourism facts 2014: Preliminary*. Ireland: Fáilte Ireland.
- Fáilte Ireland. (2018). *Food tourism*. Retrieved from <https://www.failteireland.ie/food-tourism.aspx>
- Mulcahy, J. D. (2014). *Transforming Ireland through gastronomic nationalism promoted and practiced by government, business, and civil society*. In M. Mac Con Iomaire & E. Maher (Eds.), **Tickling the palate: Gastronomy in Irish literature and culture** (pp. 223–241).
- Government of Ireland. (2021). *Our rural future: Rural development policy 2021–2025*. Retrieved from <https://www.gov.ie/en/publication/4c236-our-rural-future-vision-and-policy-context/>

Portuguese Food, Tourism, and Sustainability

- Batista, D., Guerreiro, M., Costa, M. R., Sequeira, B., Cesário, M., & Agapito, D. (2024). *Water heritage and community-based cultural tourism: The case of the Algarve's coastal agrarian plain in Southern Portugal*. In **Innovative Cultural Tourism in European Peripheries** (pp. 151-169). Routledge.
- Fernandes, G. P. (2025). *GEOfood products, tourism, and ecocultural sustainability for vulnerable territories: Projects and strategies in Portuguese Geoparks*. In **Innovative Trends Shaping Food Marketing and Consumption** (pp. 475-502). IGI Global Scientific Publishing.
- Instituto Nacional de Estatística. (2024). *Estimates of resident population in Portugal 2023*. Instituto Nacional de Estatística [INE].
- Pato, M. L. (2024). *Olive oil tourism: Innovative or traditional form of rural tourism?* In **Olives and Olive Related Products – Innovations in Production and Processing**. IntechOpen.

REFERENCES

Global Food Tourism and Sustainability

- United Nations World Tourism Organisation. (2012). *Global report on food tourism*. In P. Jordan (Ed.), **AM Reports (Vol. 4)**. Madrid: World Tourism Organization (UNWTO).
- World Food Travel Association. (2015). *What is food tourism?* Retrieved from <http://worldfoodtravel.org/what-is-food-tourism/>

Protein Transition and Sustainability

- Wageningen University & Research. (2023, March 18). *Five major players launch masterplan for protein transition as economic engine in the Netherlands*. Wageningen University & Research. <https://www.wur.nl/en/newsarticle/five-major-players-launch-masterplan-for-protein-transition-as-economic-engine-in-the-netherlands.htm>
- Wageningen University & Research. (2023, June 1). *Six levers to accelerate the protein transition*. Wageningen University & Research. <https://www.wur.nl/en/article/six-levers-to-accelerate-the-protein-transition.htm>
- Wageningen University & Research. (2023, July 5). *It's not as simple as replacing animal with plant-based protein*. Wageningen

University & Research.

<https://www.wur.nl/en/article/its-not-as-simple-as-replacing-animal-with-plant-based-protein.htm>

Economic and Business Insights

- ABN AMRO. (2025, February 24). *Horeca: Van herstel naar crisis, aantal faillissementen piekt in 2025*. ABN AMRO. <https://www.abnamro.com/nl/nieuws/horeca-van-herstel-naar-crisis-aantal-faillissementen-piekt-in-2025>
- Centraal Bureau voor de Statistiek. (2025, March 3). *Ruim 30 procent meer faillissementen in 2024*. CBS. <https://www.cbs.nl/nl-nieuws/2025/03/ruim-30-procent-meer-faillissementen-in-2024>

A person wearing a white long-sleeved shirt and a dark blue apron stands behind a wooden table. On the table are several types of bread, including a large round loaf with a cross-shaped score on top, and several smaller, elongated loaves. The background is dark.

**Food is everything we are. It's
an extension of nationalist
feeling, ethnic feeling, your
personal history, your
province, your region, your
tribe, your grandma**

Anthony Bourdain