



# Tomorrow Tastes Mediterranean

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# Tomorrow Tastes Mediterranean

International Conference  
& Digital Magazine

**November 27 - 28, 2023**

Barcelona, On-Site & Online

Translating research-based  
evidence into culinary practice  
for healthier, more sustainable,  
more delicious food for the future

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## INTRODUCTION

**What if a centuries-old set of food cultures and dietary patterns that evolved out of the olive growing regions of the greater Mediterranean basin, the birthplace of Western civilization, were not simply delicious and engaging for contemporary appetites but held critical, even existential lessons for nourishing personal and planetary health for a secure, global tomorrow?**

Inspired by this question, the **Torribera Mediterranean Center (TMC)**, a joint project of the University of Barcelona and The Culinary Institute of America, annually stages its Tomorrow Tastes Mediterranean Conference to take up a broad spectrum of critical issues with global relevance—issues around health and nutrition, sustainability including the food-climate connection and regenerative agriculture, cultural diversity and identity, culinary insight and food innovation linked to behavioral change, emerging food business strategies, and more.

In the fall of 2022, the TMC's 3rd **Tomorrow Tastes Mediterranean (TTM)** conference was held in Barcelona at the Historic Building of the University of Barcelona as well as streamed live. What follows in the pages of this Tomorrow Tastes Mediterranean Digital Magazine are highlights from that program including sessions ranging from “Biodiversity, Health and the Mediterranean Diet—From Land and Sea to the Professional Kitchen” and “Barcelona 2030—Advancing a Master Plan for Urban Food & Culinary Sustainability” to “On the Menu: Net Zero Carbon Emissions, Organizational Transformation and Deliciousness” and much more. You can also watch on-demand videos of all of these 2022 TTM conference sessions [here](#).

With now overwhelming scientific evidence of the personal and planetary healthfulness of the traditional Mediterranean Diet, the largest thrust of our TTM conference programming each year is on translation and implementation. That is, how can we take what we have learned from observational studies, clinical trials, scholarly insight, and dietary guidance—and from the science of climate change and biodiversity preservation—and apply that in very practical terms to new menu directions, new food and restaurant business models, new food environments for our schools and hospitals, innovation in agriculture and food production, new models of collaboration and inclusion, and the re-imagining of Mediterranean traditions in ways that both honor this heritage but also truly engage our families, our fellow citizens, and our business customers.

The future of the Mediterranean diet and the renewal of its food cultures is very much a work in progress. Join us in connecting innovators and thought leaders, scientists and chefs, academics and growers, business leaders and policy makers—and together work to make sure that tomorrow is, indeed, richly inspired by the Mediterranean. Welcome to the conversation.

## Biodiversity, Health and Mediterranean Diet: from Land and Sea to Professional Cuisine

This article highlights the contributions of the participants in the panel “Biodiversity, Health and the Mediterranean Diet—From Land and Sea to the Professional Kitchen”: Taylor Reid, PhD, Assistant Professor of Applied Food Studies, The Culinary Institute of America; Brent Loken, Global Food Lead Scientist, WWF; Maria Jose San Roman, Chef & Owner, Monastrell Restaurant and Joan Romanyà, Coordinator Environmental Health and Soil Science Section, University of Barcelona.

Signs are spreading around the world that something needs to be done to save the planet. But what does food have to do with it? Absolutely everything. The simple exercise of putting food in one’s mouth is perhaps one of the basic acts of humanity that has the most implications for the world. From ecology to politics, eating is an act that goes beyond the link between food and fed, that extends to all strata and allows us to weave the most surprising connections, announcing a surprising reality: Our way of eating can be a tool of change to improve the planet.

### HOW CAN THE WAY WE EAT IMPROVE THE PLANET?

Food is one of the major players in the evolution of climate change. For example, according to WWF, 30% of the greenhouse gases we release into the atmosphere come from food production. Similarly, drought and water scarcity in certain areas of the world have an important link to the food industry, as another statistic shows: 70% of the world’s fresh water consumption is used for food production (WWF).

As Brent Loken, Senior Global Food Scientist at the World Wide Fund for Nature (WWF) explains, “The data confirms that food production has a direct impact on the planet it feeds on to produce food and also on its consumers: One in three people in the world is obese, and at the same time, one in 12 is undernourished”.

After his participation on the recent COOP 27 Loken can confirm that none of the Sustainable Development Goals on nutrition issues for 2030 will be met in the short term, so one thing is clear: it is urgent to take the initiative and start acting.

## THE MEDITERRANEAN DIET: A STARTING POINT FOR TURNING THE FOOD SYSTEM AROUND

The solution that addresses the great problem of the food industry must seek to make the industry green so that it produces food that allows people to eat healthier.

To address this issue, Mr. Loken, asked the question: What does a healthy diet look like? The previous lack of scientific literature on the subject prompted intensive research that yielded predictable results: a healthy plate should be *dominated* by vegetables and greens, vegetable protein and grains—complemented (in a reduced role) by some starches like potatoes, some dairy, some red meat and little saturated fats and sugars, if necessary.

For anyone who has been fed on the shores of the Mediterranean with its traditional cuisines this portrait of a dish will be nothing new. We just need to picture a typically Mediterranean table—where fresh salads, skillfully cooked vegetables, servings of colorful pastas and rice dishes (all prepared with olive oil) abound, supported by smaller amounts of fish,

poultry, yogurt and cheese, and less frequent appearance of meat—to understand that what the Mediterranean pattern of eating has been offering for centuries can be inspiration for what so many in the world need today.

As Maria José San Román, chef and owner at the Monastrell restaurant in Alicante, on the shores of the Mediterranean, explains, **“we need to return to the products of our childhood. To return to valuing bread or turning a treasure like olive oil, the only non-manipulated oil, into a daily fat. We chefs have to make ourselves responsible for giving healthy food to eat.”**

In short, the conclusions reached by Chef San Román from her kitchen in Alicante are the same as those reached by Brent Loken from the WWF offices: The Mediterranean diet is a compelling path to return to in order to ensure a healthy and balanced diet that restores to food its capacity to give life and improve people's health.



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## A 2ND AGRICULTURAL REVOLUTION TO CHANGE THE PLANET

But if the change in what we eat goes through the Mediterranean Diet, where does the change in the way we produce that food come from? The numbers tell us that by 2050, greenhouse gas emissions from agriculture will double from today's levels. The world stopped during the pandemic, but now we are back to record levels of pollution.

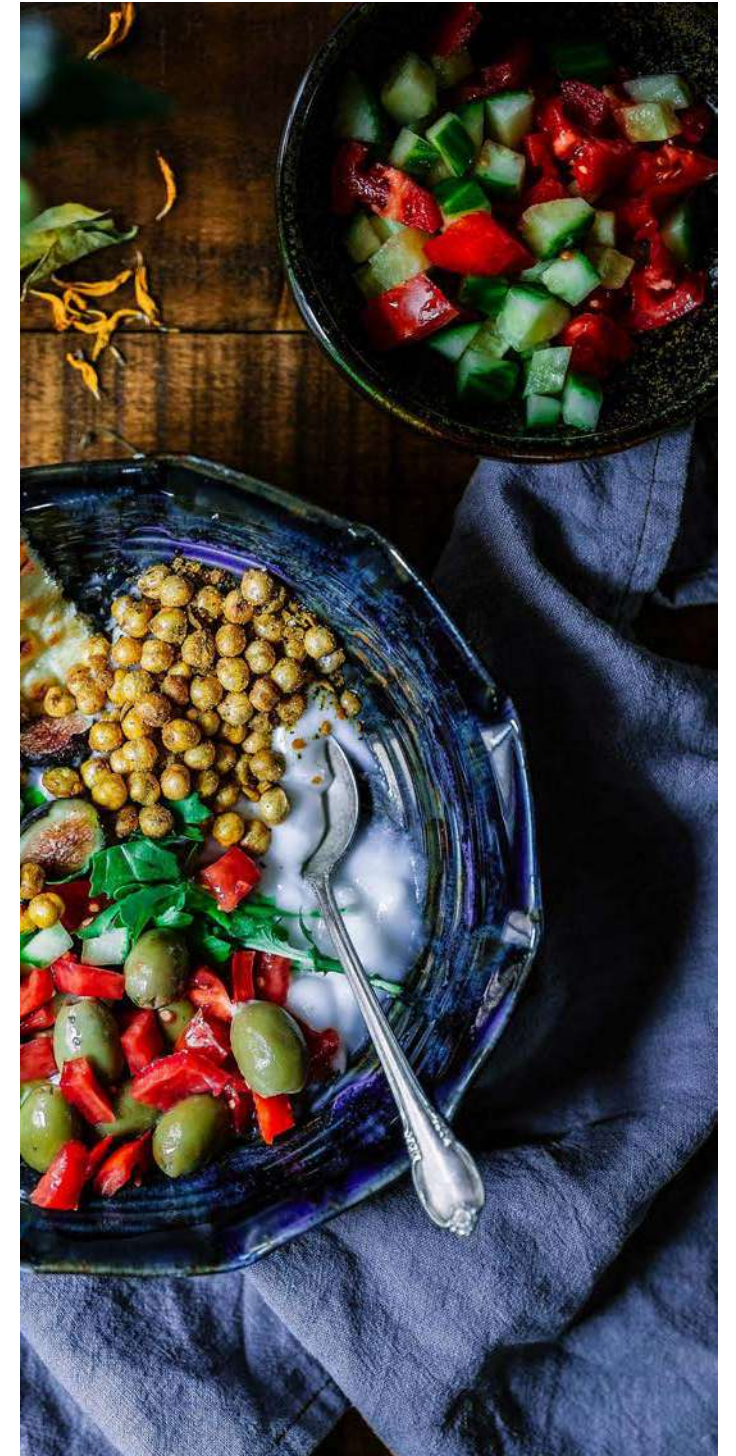
Joan Romanyà, Coordinator of the Environmental Health and Soil Science Section at the University of Barcelona, explains that the EU Green Deal has shown that in a world where 40% is devoted to agriculture, 60-70% of soils are in poor condition due, in large part, to extensive livestock farming.

Romanyà explains that agricultural soils are the world's main reservoirs for microbiota, the microorganisms responsible for facilitating good plant health. In soils without microbiota, plants do not retain nutrients, so they are weaker, more vulnerable to disease and less able to absorb CO<sub>2</sub> and curb pollution. Soils worn out and badly damaged by extensive agriculture are therefore directly responsible for climate change.

According to WWF, “intensive agriculture has to be reduced to ensure a sustainable future food supply” and the solution is “a second agricultural revolution, redirecting the steps of the first one and pursuing one main goal: that agriculture starts to regenerate soils”.

The agriculture of the future needs to achieve more with less to reduce the impact on the land: a more contained and proximity-based agriculture that respects the cycles of the land and the planet. An agriculture that is reminiscent, once again, of the traditional agriculture of the shores of the Mediterranean.

For this, there must be better access to technology, better information for farmers, better institutions that will work for it and better inclusion so that the changes also reach the south of the globe. Finally, we will also need the best influencers to convince the world that this food revolution is possible: whether they are celebrities, politicians, activists or, of course, chefs. Maria José San Román herself is convinced that one of the keys to progress is to sell the Mediterranean Diet to make it attractive to everyone. And so, perhaps, we can convince politicians like those who have not obtained any significant progress in COOP 27 that the change of today, tomorrow and the day after also passes through them.



## QUOTES

“ Signs are spreading around the world that something is wrong with the planet. But what does food have to do with it? Absolutely everything. From ecology to politics, eating is an act that goes beyond the link between food and fed, that extends to all strata and allows us to weave the most surprising and frightening connections at the same time. ”

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“ The Mediterranean-style diet is the path we must return to in order to ensure a healthy and balanced diet that restores to food its capacity to give life, not to take it away. ”

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“ The second agriculture revolution has to facilitate better access to technology, better information for farmers, better institutions to work for it, better inclusion so that the changes also reach the global south and, finally, better influencers to convince the world that this revolution in food is possible. ”

**Brent Loken, WWF**



“ Soils worn out and badly damaged by extensive agriculture are therefore directly responsible for climate change. ”

**Joan Romanyà, UB**



## How Will Barcelona Eat in the Future? Four Views on How the City Will Eat in 2030

This article highlights the contributions of the participants in the panel “Barcelona 2030: Advancing a Master Plan for Urban Food and Culinary Sustainability”: Adelaida Ferrer Torrens, Co-Executive Director (for the University of Barcelona), Torribera Mediterranean Center; Amaranta Herrero Cabrejas, Commissioner for Social Economy, Local Development and Food Policy. Cooperative, Social and Solidarity Economy Services Directorate, Barcelona City Council; Montserrat Puig, Vice-Rector for Issues of Equality and Gender Equity, Sustainability, and Healthy University Initiatives, University of Barcelona; Ricard Celorio, Predoctoral Researcher in Training, University of Barcelona; Xavier Pellicer, Chef and Owner, Xavier Pellicer Restaurant; Isabel Coderch, Sustainable Catering Consultancy, Te lo sirvo Verde.

Barcelona does not stop eating. In the middle of an election year, in a city that is an economic locomotive, capital of its autonomous community and key player in the Mediterranean region, the front pages talk about urban planning, politics or tourism, but rarely about food. However, Barcelona does not stop eating.

If we take into account the [report on food consumption in Spain 2021](#), each Barcelona resident spends 1610 euros a year to buy about 639 kilos of food. In a country where each inhabitant buys almost two kilos of food a day and where the cities do not stop growing, shouldn't the debate on the future of cities be more often about food?

Many actors are involved in the food cycle of a city. Producers and consumers, obviously, but also several intermediate steps, such as politicians, who decide the ways in which a city provides food, or chefs, who are key in a world where we eat out more and more often.

Barcelona, as a central player in its region, has a key role to play in designing its own food future and making it more sustainable. To find out what we should expect from the city's immediate future, we talked to four key players in the chain, who give us perspectives to build a peripheral vision, from the politicians who design the future of the city, to the chefs who live it on a daily basis, to the academics who research our present or the consultants in gastronomic sustainability, who have a global vision of what the future of gastronomy in Barcelona should be.

## BARCELONA 2030, A PLAN FOR TOMORROW'S FOOD

Barcelona has a plan. After becoming World Capital of Sustainable Food in 2021, the city wants to continue leading the transformation towards a healthier food city.

In a Catalonia where each person throws away 35 kg of good food every year, the capital has a clear commitment: in 2030, gastronomy will be more sustainable—or it won't be.

To achieve this goal, Amaranta Herrero, Commissioner for the Barcelona City Council on Social Economy, explains that the City Council has designed the [“Healthy and Sustainable Food Strategy Barcelona 2030”](#) a document that will guide the city's decisions regarding food in the immediate future.

After a participatory process in which more than 1,000 people have collaborated, the plan has clear numbers: 9 objectives, 54 lines of work and 256 concrete actions.

It is not something that was born yesterday. In 2015, the city signed the commitment to urban food policy of the Milan Pact, which pledged to put urban and food policies at the center. Now, the path that began a few years ago is translated into nine clear objectives that are as follows:

1. Increase the production, sale and consumption of seasonal, local, organic, sustainably fished and animal welfare foods, as well as distribution in shorter, fairer and more balanced chains.
2. To protect, recover and promote urban and peri-urban agricultural areas.
3. Promote healthy and sustainable food for all people.
4. Increasing the resilience of the food system and guaranteeing the right to healthy and sustainable food.
5. Prevent food losses and food waste.
6. Combat the climate emergency and the extinction crisis.
7. Promote a cultural and educational shift towards sustainable food.
8. Promote fair relationships within the food supply chain.
9. Coordinate and mobilize food system actors to carry out concrete and measurable actions, linked to existing strategies.

The actions in which these objectives are implemented can be consulted in the plan. But if there is a need for politics, it is precisely to involve citizens in the decisions it takes, so that the decisions made are not unidirectional, but joint.

Therefore, the idea of the nine objectives of the “Healthy and Sustainable Food Strategy Barcelona 2030” is that all Barcelona citizens participate in them. Therefore, the city council invites citizens to join the pact, signing it and expressing their agreement with the proposed measures.

In addition, the city wants all stakeholders to be an active part of the plan. Thus, social agents, whether it is a chef and his restaurant or a hospital and its kitchen, can announce that they join the plan, commit to it and visualize the measures they take in their respective fields to implement it. In this way, they join the change and act as a loudspeaker.

In Barcelona, a city that, like others, does not stop growing, this sum is indispensable, and policies that seek to improve the food system in the future, too.



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## THE ACADEMY IS LOOKING FOR ANSWERS, WHAT DO WE MEAN BY SUSTAINABLE FOOD?

To design the food of the future is essential to understand what the food is of today. And while politicians plan and chefs cook, academia is asking questions to help debunk myths and build new realities.

We have all heard of sustainable food, but do we know exactly what we mean when we use these words?

This is the question they asked themselves at the University of Barcelona (UB). Aware of the challenges of the food of the future, there is nothing more important than the awareness of today to move in the right direction. That is why, as explained by Montserrat Puig, Vice-Rector for Issues of Equality and Gender Equity, Sustainability, and Healthy University Initiatives (UB) and Ricard Celorio, Predoctoral Researcher in Training (UB), the Torribera campus of the UB has brought together a multidisciplinary team led by Dr. M. Carmen Rivera, director of the campus, to elaborate a study<sup>1</sup>, which has determined what the perception of the university population regarding sustainable food is.

The question is clear: What do you think of when you think of sustainable food? The study interviewed more than 1,200 people and shows, in general terms, that although there is a concern for sustainable diet and a willingness to exercise it in purchasing, there is also a great lack of knowledge and, above all, many barriers to access it. For example, although many of those consulted have heard of issues such as waste management or km.0 food, other issues, less present in the media, such as the carbon footprint, were more unknown. Similarly, most respondents know that a sustainable diet should include legumes or cereals, and avoid sugary drinks, salty snacks, alcohol, refined grains or red meat.

However, all agree that the obstacles to making such a shopping basket (and cooking it) are multiplying. From the price of healthy products, to the lack of information in supermarkets, to the lack of knowledge of waste management techniques or reuse of food.

In short, the university population of Barcelona, which is a good part of the great food consumers of the future, knows today what sustainable food is and is willing and interested in eating better, but finds too many barriers, and calls for more efforts to improve this awareness of gastronomy both for them and for future generations.



<sup>1</sup> The referred study is "Perceptions of Food among College Students in the Field of Food Science: A Food Sustainability Approach".

## XAVIER PELLICER, THE RESPONSIBILITY OF CHEFS WHEN COOKING BETWEEN BUILDINGS



In 2015, when Barcelona was signing its Milan pact for sustainable cities, a Barcelona chef took a turn that at the time was still strange, and turned his prestigious restaurant into a health food house.

Eight years later, sustainability, Xavier Pellicer's personal commitment, is the fashionable topic in gastronomy.

The Catalan chef is an example of how to apply sustainability in a city like Barcelona where there is no room for a vegetable garden. During his presentation, Xavier Pellicer explains that he has a very clear principle: "The first thing is economic sustainability. After a hard pandemic, restaurants need support from the administrations, to live, and not survive, and thus ensure a decent economic livelihood for all their workers".

But in the complex system of the restaurant, linked like few others to the ups and downs of international current affairs, there are several fronts to be addressed. Pellicer also talks about energy sustainability in a world where resources are becoming more expensive, and where lighting a stove is becoming more and more expensive.

Once the economic base is secured, the restaurant begins to have responsibilities. Fresh, local, quality produce grown in the city's surrounding orchards.

**"A restaurant is the filter that allows us to see if the product we buy is real, and that's nice".**

And once the responsibility has been assumed, education. Who said restaurants can't educate? Customers have to be told about the measures taken, the paths followed by local produce and the value of fruit grown just a few kilometers from the table. Because in a dense city, every gesture counts, and in the reduced space of a restaurant every step taken towards sustainability, no matter how small, makes a gastronomic project further and further away from a nominal sustainability, and closer and closer to an authentic and beautiful project of conscious progress.

## SUSTAINABILITY IS NOT A TREND, IT IS A REQUIREMENT

Like Pellicer, Isabel Coderch, a gastronomic consultant in sustainability, director of the consultancy “Te lo sirvo verde”, is ahead of her time on this issue. She has been helping hospitality venues reduce their environmental footprint for two decades. The consultant may seem a somewhat more unknown player in the food system, but in a country with 270000 bars and restaurants employing a million people, a figure like Coderch, who keeps in mind both the day-to-day running of the kitchen and the latest advances in research and the latest policies, is very important.



Her vision is clear:

“The hotel and catering industry has always been a polluting actor: it consumes environmental resources and generates waste. The difference is the volume. Where 50 years ago going out to eat was an exception, today it has become a daily task.”

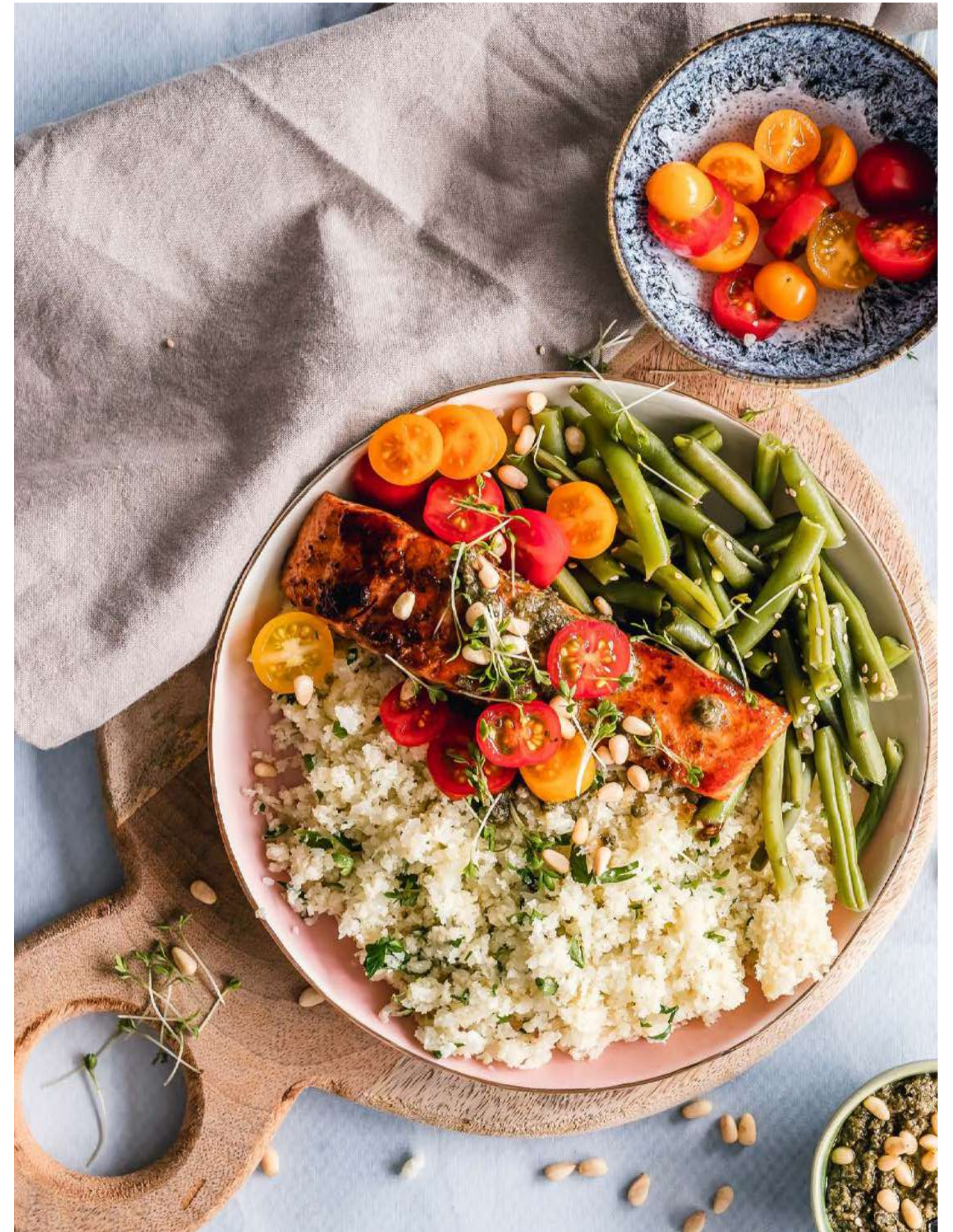
Changing the way the hospitality industry is managed is therefore a matter of urgency. Restaurants can no longer disregard their environment by limiting themselves to cooking, but have to keep their eyes wide open to apply sustainability in all kinds of fields: energy efficiency, sustainable food, zero waste, social commitment, smoke-free mobility...

“Picking up a phone to serve a supplier is already a source of greenhouse gases.”

Explains Isabel Coderch, so every step of the restaurant has to be analyzed with a magnifying glass.

In this sense, Coderch has identified five trends that will help to improve the system in the coming years until 2030: achieving zero waste, reducing food wastage, reducing emissions, government support to design a sustainable hospitality industry and good governance in the restaurant when implementing sustainability policies.

Only by taking these parameters into account can the city and its restaurants evolve towards a cleaner and more conscious future, a gastronomic tomorrow in which cities and their food system are part of the positive change on the planet.





## On Location: Greece and the Heritage of the Mediterranean Diet

This article highlights the contributions of the participants in the panel “Greece and the Heritage of the Mediterranean Diet—Costa Navarino, a Case Study in Health and Sustainability Innovation”: Marina Papatsoni, General Manager Business Development and Corporate Affairs, TEMES/Costa Navarino; Dionissis Papadatos, Project Manager, Captain Vassilis & Carmen Constantakopoulos Foundation; Antonia Trichopoulou, MD, President, Hellenic Health Foundation/Athens Academy; Xenophon Kappas, General Manager, Captain Vassilis & Carmen Constantakopoulos Foundation; Lefteris Larazou, Chef & Owner, Varoulko Seaside Restaurant; Giorgios Maneas, Station Manager, Navarino Environmental Observatory.

## DISCOVERING THE PAST TO NOURISH THE FUTURE

Fifty-seven years ago, Chef Lefteris Lazarou began to relate to cooking through the love his father passed on to him with the dishes he prepared for him near the coast of Messinia. What Lefteris did not yet know was that the aroma of his father’s stews that penetrated his nose was the same aroma that has been perfuming the region for thousands of years. And this was the same aroma that, 21 years later, would lead him to open Varoulko Seaside near Athens, a restaurant that has been cooking the food of Messinia for 36 years, sharing with customers the millenary recipe book of a region in the same way that Lefteris’ father had shared these recipes with his son.

Vassilis Constantakopoulos, another son of Messinia, also walked, perhaps unintentionally, in the same direction: sharing Messinia with the world. Born in 1935, at 12 he went to Athens to work on the merchant ships of a country with one of the longest maritime traditions in history. But as he rose to become a captain, his dream of homeland remained, and years later he would end up starting an ambitious, long-term project to create a distinguished group of hotels as a welcoming point of entry to the captain’s homeland for visitors from all over.

At this point we have the story of two people—a chef/restaurateur and a shipping captain turned hotel and real estate entrepreneur—who decided to launch businesses to ply their trade with this element of commonality: joining a long tradition of individuals who start enterprises tied closely to the region of their birth. But in this case each of these men, in their own ways, went on to create something of greater impact: building on their love of their ancestral territory and traditions in ways that renew that heritage, thereby making these gifts of nature accessible to a far larger world and future generations.

## THE HOTEL WITH THREE LEGS: SUSTAINABILITY, SUSTAINABILITY, AND SUSTAINABILITY

But first we must ask: What and where is Messenia? Messenia is a region with a millennia-old history in the southwest of the Peloponnese peninsula. The home of Vassilis and Lefteris is one of the few remaining unspoiled areas in Greece and, by all accounts, one of the most beautiful. Perhaps that is why Vassilis had the dream of creating a hotel destination there that would not only welcome visitors to his land, but also respect it and, along the way, help even its own inhabitants to more fully discover what treasure they had in their hands.

Thus was born Costa Navarino, one of the first sustainable tourist destinations in the Mediterranean. The area is one of the largest private investments in Greece, with 2.5 billion euros and 1000 hectares that include hotels, golf courses—and 10% of the territory destined to sustainability practices.

This whole system works around three axes. First, to function as a private company in tandem with the Captain Vassilis & Carmen Constantakopoulos Foundation (born after the death of the captain). Second, to maintain Messinia as a sustainable model of agricultural tourism destination. Third, to operate the Navarino Environmental Observatory in collaboration with the Academy of Athens and the University of Athens.



The mission of this observatory perfectly sums up Costa Navarino's mission. Giorgos Maneas, Station Manager at the observatory, explains that:

**“Our mission is to help farmers build a cleaner future, and to help them follow FAO’s sustainability strategies.”**

Involving farmers, politicians, the public sector and the private sector, the objective is always the same:

**“To understand what is happening and to know what we have to do to meet sustainability targets in our territory.”**

Thus, the third leg of this project has little to do with hospitality, but it explains better than any other the objective of this hotel project.

## WHAT IS THE RELATIONSHIP BETWEEN A HOTEL AND A MISSING TOMATO?

If the third leg of the project seeks to be the eye that observes sustainable practices in the area, the first leg, the Captain Vassilis Foundation, seeks to bring those practices to fruition. Therefore, sustainable agriculture is one of the essential areas of focus. To do so, the Foundation works on three pillars:

- *Investigation applied to agriculture and networking.*
- *Partnerships involving local people, universities and collectives.*
- *The development of examples to be exported.*

Xenophon Kappas, General Director of the Captain Vassilis & Carmen Constantakopoulos Foundation, explains that “research has given rise to such wonderful projects as the digital museum of the Messenian diet, which records the food and culinary practices, that intangible value that makes up Messenian culture. From alliances fostered over time

come the relationships that bring the locals closer to other entities, so that one discovers the other, and in the exchange, the path towards sustainable conservation of the environment emerges. Finally, there are some examples of exportation that are edible and others that are not. The different varieties of tomatoes, such as the Kalamata tomato, can be exported (and eaten). But so can the knowledge of how to cook these products. That’s why the project also offers gastronomy seminars for restaurants and chefs on how to use local food and link these menu offerings with local producers and, at the same time, export the inspiration of the Mediterranean diet and traditional cuisine.

But where does all this knowledge come from? Who recovers these lost tomatoes? And more importantly, what is the traditional cuisine—and this Mediterranean die—that is at the heart of the Messenian culture?



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## A SOUND OF COOKING AS A WINDOW INTO FOOD CULTURE

Antonia Trichopolou, MD, president of the Hellenic Health Foundation/Athens Academy and a pioneering Mediterranean Diet nutrition scientist, is clear that in order to transmit and educate with words, one must first define those words well. Therefore, she emphasizes that the Mediterranean Diet is “a dietary pattern found in the olive-growing areas in the Mediterranean area in the 1950s and 1960s.” “Without olive oil, the Mediterranean Diet does not exist” she states. In the same way, she explains that tradition “has to be defined and defended,” studying its components and its preparations to defend it against bad imitations, which present poor quality products as traditional products, making people stop trusting traditional food.

But why take the trouble? The commitment to the Mediterranean Diet is not a whim. In 2010, UNESCO included the Mediterranean diet in their list of intangible world cultural heritage, reflecting the accumulating work of scientists who have been demonstrating that this diet is both healthy and sustainable, significantly contributing to longevity.

The UN gesture in 2010 summarizes thousands of years of gastronomic and cultural history, because the Mediterranean Diet is not just a way of eating—it’s a way of life, a set of “skills, knowledge, practices and traditions.” It is the expression of the richness of an area that has constantly been a meeting point, but also an expression of relentless creativity in the face of limitations: “In Greece, an often impoverished rural area, there are up to 100 recipes made only with oil, flour and wild greens.”

And if the best way to transmit culture is through language, there is nothing like seeing how these two elements come together. In Greek the word *Tsigarisma* is a central element of the culinary culture, a word that explains that moment a stir-fry starts to sizzle (“Tsi, tsi...”) with onion, chopped herbs and olive oil in the pan. This central word explains a central meal preparation, and summarizes like no other the importance of the Mediterranean Diet for the Messinian culture, the importance of Messinia to explain and reveal the Mediterranean Diet, and the importance of the legacy to be preserved.



## A HOSPITALITY PROJECT ON A DELICIOUS MISSION

The third leg of the Costa Navarino project, after the work of the Foundation and the Environmental Observatory, is to maintain the balance between sustainability and the conversion of Messenia into a tourist destination. It makes that last bridge. After the Messenians themselves have discovered the treasures harbored by their Mediterranean culture (i.e., their tomatoes, their recipes, their traditions, and the region’s natural beauty), it is time to show them to the world.

And for this, it is important to follow the same path, the bidirectionality: from the tourist to Messenia, and from Messenia to the tourist. That is why it is important to use a language that everyone understands. “A language that is more practical than scientific” in the words of Marina Papatsoni, General Manager of Business Development and Corporate Affairs at Costa Navarino. “An example would be the coffees we host with farmers, where we chat about sustainability issues to extend the debate and put it on the daily agenda of citizens.”

Papatsoni explains that Costa Navarino works with a three-pillar strategy:

- *Support primary production.*
- *Using products as a tool for development.*
- *Develop unique and authentic experiences that involve resort guests.*

An example that summarizes these three pillars is that a contest was held to recover forgotten recipes among the locals. Around 500 recipes were recovered, which have served not only to be the basis for the recipe book for the next 12 years of the hotel, but also to teach it to restaurants in the area and, importantly, to recover products that had disappeared.

Thus, the arrival of a hotel group means, by domino effect, that “1,500 farmers are, all at once, producing vegetables that had disappeared from their territory 50 years ago,” explains Marina Papatsoni. In turn, these products are marketed by Navarino Icons, products produced very close to the hotel, but sold to grocery businesses far from the origin of these foods and flavors.

And so the circle closes. The same restaurant of Lefteris Lazarou, the chef who learned from his father Messenius, uses these products, and has become the first Greek chef to win a Michelin star and thus serve as the pre-eminent ambassador of Messinian cuisine. Or of his father’s cuisine. Or of the cuisine of all the ancestors who have shaped the cultural history of Messenia that is still being passed on today.



## QUOTES

“ The definition of Mediterranean Diet that I use is this: A dietary pattern found in olive growing areas in the Mediterranean area in the 1950s and 1960s. The Mediterranean diet does not exist without olive oil. ”

“ The Mediterranean Diet is a dietary pattern that maximizes longevity. ”

**Antonia Trichopoulou,**  
MD, President, Hellenic Health Foundation/Athens Academy

“ We try to get to know all these intangible concepts of Messenian culture, record them in order not to lose them and analyze their relationship with today’s life. Hence a digital museum of the Messenian diet is born. ”

“ The foundation seeks to pursue Vassilis’ dream to build a sustainable future for his land. ”

**Xenophon Kappas,**  
General Manager, Captain Vassilis & Carmen  
Constantakopoulos Foundation

“ The Kalamata olive is a good example to demonstrate the importance of food in the expansion of culture. Few people know the Peloponnese, but everyone knows the Kalamata olive. ”

**Marina Papatsoni,**  
General Manager of Business Development and  
Corporate Affairs, TEMES/Navarino Coast



## QUOTES

“ My story begins a long time ago. In my father’s kitchen. The love that runs in my blood, the experiences of the neighborhood where I grew up, the beauty of Greece and its raw materials.... All of that makes up my story and that of my restaurant. ”

“ The obligation of chefs is to cook better, in a healthier way and to embrace all the elements of Mediterranean cuisine. ”

**Lefteris Larazou,**

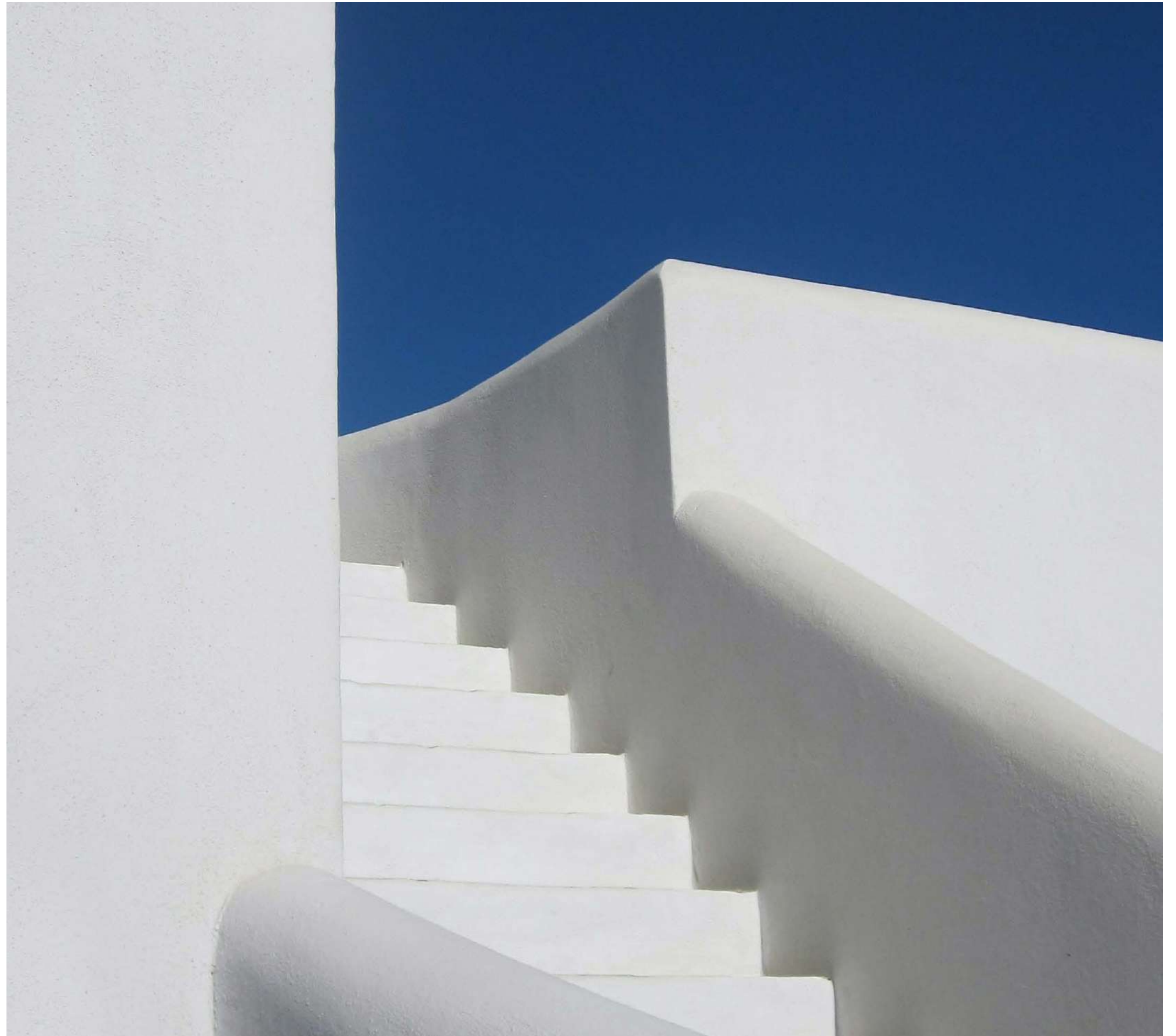
Chef and Owner, Varoulko Seaside Restaurant

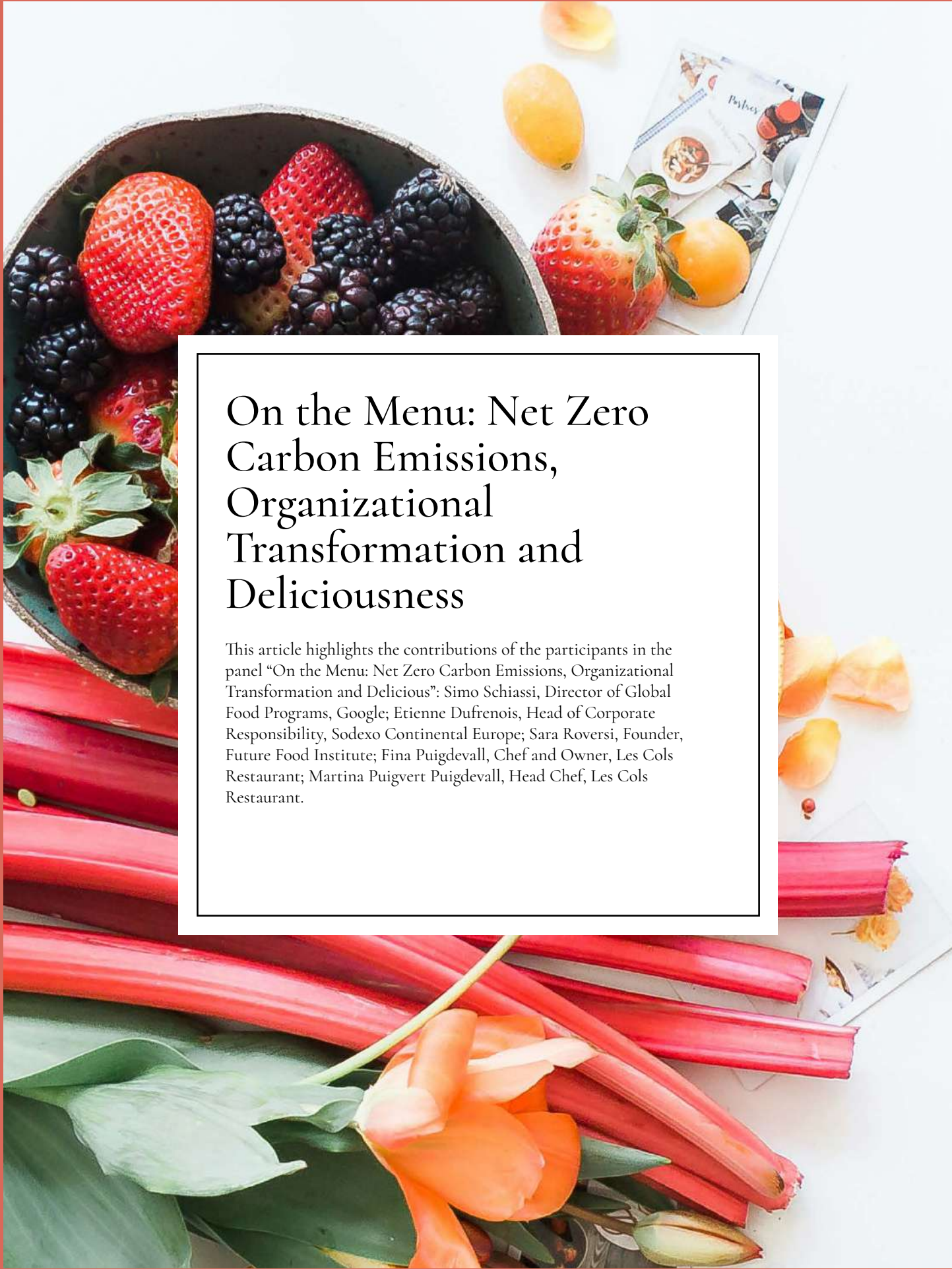
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“ Our mission is to help farmers build a cleaner future. And help them to follow FAO’s strategy on sustainability. ”

**Gioigios Maneas,**

Station Manager, Navarino Environmental Observatory





## On the Menu: Net Zero Carbon Emissions, Organizational Transformation and Deliciousness

This article highlights the contributions of the participants in the panel “On the Menu: Net Zero Carbon Emissions, Organizational Transformation and Deliciousness”: Simo Schiassi, Director of Global Food Programs, Google; Etienne Dufrenois, Head of Corporate Responsibility, Sodexo Continental Europe; Sara Roversi, Founder, Future Food Institute; Fina Puigdevall, Chef and Owner, Les Cols Restaurant; Martina Puigvert Puigdevall, Head Chef, Les Cols Restaurant.

## A STORY OF LOVE BETWEEN PEOPLE... TO UNDERSTAND THE LOVE FOR FOOD

In a conversation between food lovers, there is nothing like a love story to explain the importance of gastronomy in raising awareness of change in the world. The story is told by Oscar, a Swedish chef who worked in a pharmaceutical factory in Uppsala, a few hundred kilometers from Stockholm. While working in that factory Oscar met his wife, a vegan, through whom he began a path of no return towards a gastronomy that is more aware of the world around her and, therefore, more sustainable. If love is feelings for another person and sensitivity and attention to their needs, nothing like the story of this chef to explain that, often, it only takes a little sensitivity to the world around us to convince us that our way of eating, which seems so immovable, can easily change.

Far from Sweden, in La Garrotxa, a volcanic and rural region of Catalonia, Fina Puigdevall's restaurant Les Cols also tells a love story. The love affair that the Puigdevall family, owner of this Michelin-starred restaurant, has with their land, has meant that only open-minded people come to their home, willing to listen and be sensitized to understand the philosophy of Les Cols: the product is important, but treating everything that surrounds it with care to maintain a balance, too.

In a fast-paced world, where we often don't have time to sit down and listen to each other, the chefs, who cook new food every day, touch new products every day and deal with new customers and producers every day, all agree on one thing: “We have to sensitize diners to understand the change that gastronomy needs.”



## COMPANIES AND THEIR WORKERS, RESTAURANTS AND FORGOTTEN DINERS

But this love story is missing a stage. When we talk about food we talk a lot about restaurants and chefs. The romances we have mentioned take us from the table to the field, to diners or to the city, but in the food system there are many legs, some of them as big as entire planets.

Corporate and mass catering are the best example of this. As Simo Schiassi, (now former) Director of Global Food Programs at Google explains, **“a company like ours, for example, cooks 350,000 meals per day served for more than 233 thousand individuals. We have 360 bars and restaurants, 1,500 micro-kitchens, service in 136 cities of 56 countries...”**. The food service of a company like Google is bigger than a medium size city and definitely more international, and therefore more powerful in conveying the word of change.

And when these behemoths are run by people with a love of food, the message comes back the same: **“You have to improve the food system, and you have to do it by making people aware of the need for change.”**

But this is not the only company undertaking this transformation. Remember the story of Oscar Jonasson shared by Etienne, working as a chef at Sodexo in Sweden, a food services company that serves hundreds of thousands of meals a day in companies, hospitals, schools, universities and a range of other organizations. Oscar is passionate about food and more precisely plant-based food. The company has worked with a startup to design and deploy an app that allows you to calculate the carbon emissions of each dish you cook and allow you to find solution to reduce them. Etienne Dufrenois, Head of Corporate Responsibility at Sodexo explains that, with this tool, Oscar was empowered and has gone from 1.7kg. of CO<sub>2</sub> emissions per dish at the beginning of the process of using the tool to 0.6kg. Today. **“Along the way, we have vegetalized the menu, we have included more vegetables, cereals, pulses, nuts, and reduced meat... But always with a single premise: that the resulting food, beyond being healthier and more sustainable, is delicious.”**

Nothing very different from what happens at Google. Simo Schiassi has one goal: to bring together the great talents of his generation around food. But he is clear that to achieve this, one thing is needed: **“That food must be delicious so that people fall in love with it”**. To achieve this, Schiassi explains, **“at Google we have designed the Foodshots, the food goals, which include enabling individuals to choose better menus, changing the diets of their employees, improving the transparency of the food system, reducing food**

**waste and accelerating the transition to the circular economy”**. From reducing the use of plastics to creating delicious plant-based menus, the change at Google is not about forcing employees to eat differently, but striving to make them fall in love with the food Google is preparing. According to Schiassi, **“Google’s vision is to responsibly and sustainably feed the world and build a better ecosystem, and the mission is to inspire the Google community to thrive through food choices.”**

It’s nothing very different from what Sodexo does, and there’s a reason the companies share figures. Etienne Dufrenois explains that **“since Oscar has started his journey to cook more delicious plant-based menu, 1/3 of its consumers eat low-emission menus every day.”** Google, for its part, aims to reduce emissions from its kitchens to zero by 2050, making its gastronomic activity an environmentally friendly endeavor. After all, as Schiassi reminds us, 8% of the world’s carbon emissions come from food waste. So, in a world that is in danger because it throws its food away, what better than to fall in love with food to stop throwing it away, enjoy it to the last bite and start turning the planet around?

## CIRCULARITY OF THE MEDITERRANEAN DIET

Curiously, Oscar, from Sweden, Schiassi, from Google’s Irish offices, and the managers of Sodexo in France are following very similar paths for the solutions of their macroeconomic projects to those followed by the Puigdevall family in La Garrotxa for their small restaurant project.

From Google they want to increase the use of legumes and agrodiverse grains by 30% by 2030, in Compass they have vegetablized their menus, and all speak of proximity, respect for the product and a key concept: circularity.

At Les Cols they commissioned a study that analyzed the resources entering and leaving the restaurant, that is, the resources that the restaurant needs to function, and those that it wastes once they are used. Fina Puigdevall and Martina Puigvert Puigdevall, leaders of Les Cols restaurant, see that the conclusion was clear: **“The sustainability of our restaurant will come when the scheme of input and output of resources tends to circularity, that is, when the outgoing resources are converted back into incoming resources, promoting a virtuous circle of zero sum.”**

And in this respect, both sides agree with the view of the Future Food Institute. Sara Roversi, founder of the Future Food Institute, states that **“The Mediterranean diet is the way forward to achieve this goal”**. **“In our participation in the recent celebration of COOP 27 the Institute detected that the main topics of conversation were circularity, regenerative agriculture and, in short, the implementation of a regenerative mentality applied to the gastronomic system.”**

**“In the end, that’s what the Mediterranean diet teaches us,”** says this institution. And they extend the mission. Education, the task of making diners fall in love with sustainable food, goes through companies, restaurants, chefs and customers, but it starts in schools. **“We have to bring the Mediterranean idea of food back to the beginning of the chain”** and, like everyone else, without forcing, but by surprising and convincing, because, as with any love story, mutual understanding and comprehension are the basis of a lasting relationship. Or as they say in the Future Food Institute: **“Experiences are what give us the impulse to change.”**



## From the Grape Seed to the Wine Bottle, all the Steps of Sustainability Through a Single Fruit

This article highlights the contributions of the participants in the panel “Pathways of Change: Leveraging Strategies to Advance Personal and Planetary Health”: Adelaida Ferrer Torrens, Co-Executive Director (for the University of Barcelona), Torribera Mediterranean Center; Miguel A. Torres, President, Torres Family Winery; Enrique Tello, Professor, Department of Economic History, Institutions, Politics and World Economy, University of Barcelona; Teresa Gutiérrez, Chef and Owner, Azafrán Restaurant.

## CHANGING THE EARTH TO CHANGE THE WORLD

We can all clearly imagine the gesture of eating a grape. Green or purple, with a smooth skin and firm texture, the grape is like a small liquid juice bomb. If we remember the moment of biting into it and noticing how its flavor expands in our mouth, we will also remember that moment when we bite the stone of the grape, its seed, and after noticing a bitter taste we discard it to continue enjoying the fruit. Let's stop the image at that instant, and change its course.

Let's keep the grape seed and imagine that we plant it, naively, thinking of turning it one day into a vineyard that will give us its own wine. Let's keep that image in our heads, because in the path that the grape can follow from being a bitter seed in our mouth until it becomes a bottle of exquisite wine served in a restaurant is one of the keys to food sustainability.

## IT ALL DEPENDS ON THE SOIL

There are good news: the way we decide to grow that seed can reverse climate change. So says Enric Tello, Professor, Department of Economic History, Institutions, Politics and World Economy in University of Barcelona (UB), who is clear that this crop cannot be grown in any old fashioned way. According to Tello, **“traditional agriculture is no longer useful to address the challenges the planet is facing today”**. He explains the idea of the **“4 per 1000”**, supported by many governments around the world, including the Spanish government, which states that, **“if we increase the carbon content of our agricultural soils by 4 per 1000, on a continuous basis, by the end of the 21st century we will be able to reverse the climate change.”**

Today, the agri-food system generates 34% of the planet’s emissions. This demonstrates its power. But this same power can be reversed to turn the system into a tool to fight climate change by converting the current agri-food system into an agroecological system. But what is agroecology? According to FAO,

**“Agroecology is a scientific discipline, a set of practices and a social movement. As a science, it studies how the different components of the agroecosystem interact. As a set of practices, it seeks sustainable agricultural systems that optimize and stabilize production. As a social movement, it pursues multifunctional roles for agriculture, promotes social justice, nurtures identity and culture, and strengthens the economic viability of rural areas.”**

<sup>1</sup> The report referred to is “Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition”



The idea is not just Tello’s. The Committee on Food Security for the United Nations and the FAO have already launched the idea that we need an agroecological transition on a global scale. The committee has published a reports<sup>1</sup> from which the need for an agroecological transition towards food territories that make it possible to reconcile food production with climate emergency, soil regeneration and to retain more water. In short, the grape seed that we have saved for ourselves cannot be planted in any way, but must be planted in a way that ensures food security in the world and, in the long run, a healthy diet for all.

## A PLAN TO CHANGE THE WAY WE PLANT

To achieve this change, FAO launched in 2018 **“Scaling Up Agroecology”**, a plan that proposes a scenario where a circular bioeconomy is possible, giving back to land what the land gives us in terms of nutrients. In the same way, **the European Commission is detailing a plan<sup>2</sup>** with five points to ensure a transition that has to be made in close relationship between all the actors in the agri-food chain.

The five levels or steps of this transition involve, first, improving the efficiency of the use of external inputs that now depend mainly on fossil fuels. Secondly, it is time to stop using these external inputs and replace them with nature-based solutions, which is

where organic agriculture comes in. Thirdly, it is necessary to close the circle, connecting the field with users, consumers, etc. Fourthly, connections between consumers and producers will have to be re-established to redefine food networks. And fifth, the world food system will have to be rebuilt to make it sustainable and equitable.

This grape, which until now has been moving from the field to the consumer’s hands in an almost magical way, prioritizing speed over quality, is now changing its route, to emerge from a healthier land, reach a more conscious consumer and thus change, with its journey, the ways in which we relate to food.



<sup>2</sup> The document referred to is “European Partnership under Horizon Europe Accelerating farming systems transition: agroecology living labs and research infrastructures”

## THE GRAPE HAS GROWN, HOW DO WE REMAIN SUSTAINABLE?

We have preserved that seed, we have planted it in an agro-ecological crop and now we have to wait to turn it into wine. Does our work end here? Dynasties such as Bodegas Torres, with vineyards all over the world, prove that it does not. The work, once we have taken the path of agroecology, has only just begun.

So great is the challenge that Bodegas Torres, together with Jackson Family Wines, have created the [International Association Wineries for Climate Change](#), to lead global decarbonization. According to Miguel Torres, president of Bodegas Torres, a company with four generations of history, “vineyards are like the canaries that were used

in the mines. They were lowered before people, and if the canaries complained, it meant that the gas below was not breathable for humans. The same thing is happening with the vineyards, they are alerting us to the changes that the climate is undergoing.”

In Catalonia the average temperature has increased by 1.3°C in 15 years, while in France frost is destroying crops. Fires are raging in Catalonia, in California... Vineyards warn that something is not right.



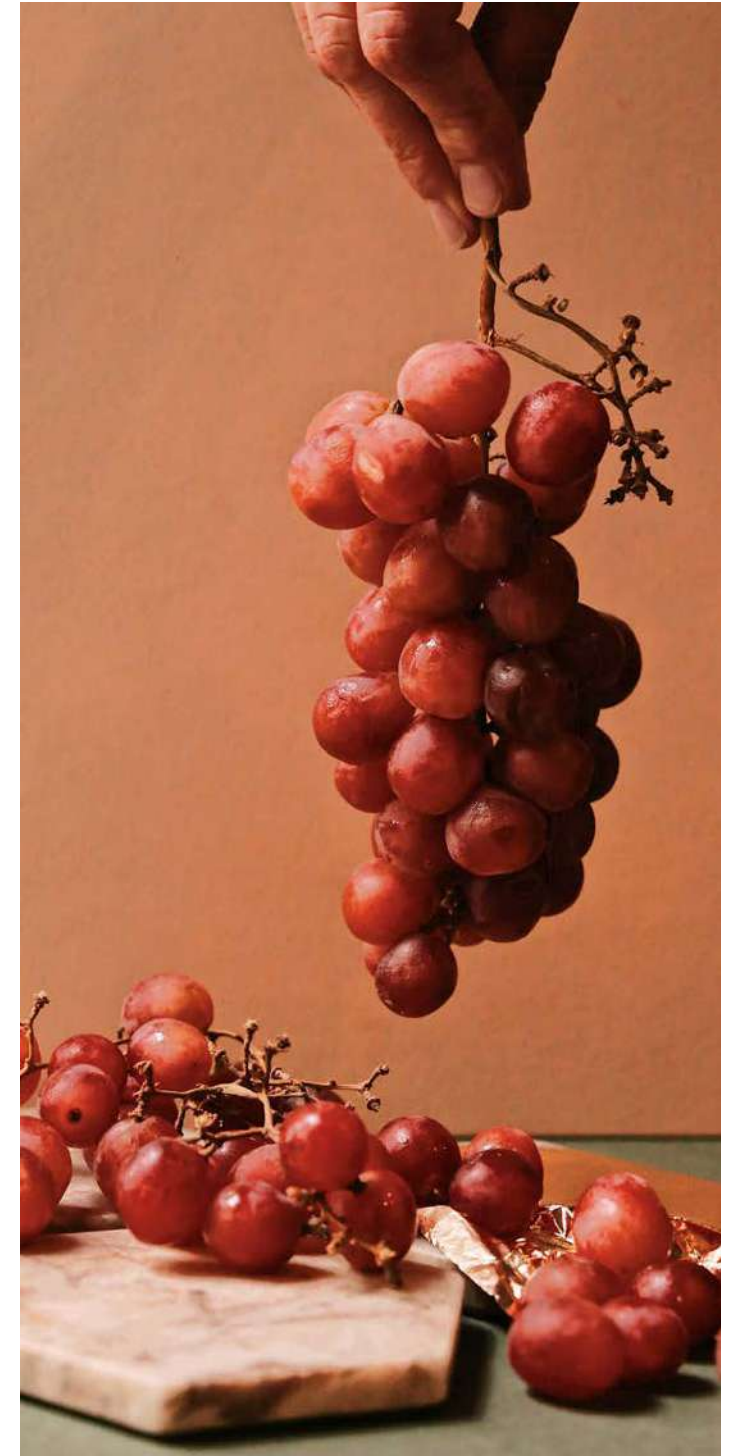
## NEW CARE FOR THE VINEYARD TO GET IT BACK TO THE WAY IT USED TO BE

The warnings we get from the vineyards tell us: measures must be taken. Bodegas Torres explains that they have started, for example, by modifying the raw material they work with:

“We have made changes in the height of the vineyards or larger plants to delay the ripening of the fruit and adapt to the hot climate. In addition, we stimulate regenerative viticulture so that grass can grow and thus increase biodiversity.”

At the same time, technological measures are adopted. Photovoltaic panels, tractors and electric cars and even innovative mobile agrovoltaic panels, which provide shade for the plants while collecting solar energy.

The combination of both initiatives, agricultural and technological, aims to reduce the winery’s emissions by 60% by 2030. At the macro level, there are already 40 wineries affiliated with Wineries for Climate Change, whose goal is to become a zero-emissions network by 2050. The goal, in the end, is for viticulture to help slow down climate change and reverse it, so it is time to run to learn the new ways of growing grapes, so that tomorrow we can plant them in the same places where we did it yesterday.



## THE LAST STEP... OR THE FIRST?

That grape seed, which has already led us to make changes in the way we plant, which has also led us to change the way we grow and make beverages, has already become a bottle of wine. But the responsibility is still not over.

Wines, like any food, are children of their time and their environment, and a consumer who wants to drink them, at home or in a restaurant, must be aware of this.

Teresa Rodríguez explains it from her restaurant Azafrán, in Villarrobledo, in the heart of Castilla la Mancha. The diners who come to her restaurant will taste local recipes, which as she says: **“We have lightened them to free them from their traditional forcefulness, because sustainability is also cooking healthier,”** for a generation that no longer bends its back from sunrise to sunset in the countryside, but types from the office.

But they will also drink wines created with local grape varieties, of later ripening, and, explains the chef.

**“They will receive an explanation about why that wine, and not another, is the one they are drinking at the table, and the importance of a local wine to keep the local food fabric sustainable.”**

In this way, the customer who feels the taste of the grape when drinking from the glass will close the circle. That seed that he held in his hands at the beginning of this story and that he was about to throw away without thinking about anything else, will take on meaning again, in a self-sufficient circular cycle that is the basis of the sustainable food system of the future.



## How to Move from Research to Action? A Round Table on the Application of the Mediterranean Diet

This article highlights the contributions of the participants in the panel “Securing the Future of the Mediterranean Diet: Do Experimental and Translational Research Models Need to Change? Evolve?”: Michael Sperling, PhD, Vice President for Academic Affairs, The Culinary Institute of America; Jean-Xavier Guinard, PhD, Professor of Sensory Sciences, Translational Sensory Research/Consumer Perspective, University of California, Davis; Rosa M. Lamuela-Raventós, PhD, Associate Professor and Director of the Institute of Nutrition and Food Safety, University of Barcelona; Miguel Ruiz-Canela, PhD, Professor and Head of the Department of Preventive Medicine and Public Health, University of Navarra; Ramón Estruch, MD, PhD, Senior Consultant, Department of Internal Medicine, Hospital Clínic de Barcelona. Professor, Faculty of Medicine, University of Barcelona. Research Director of the Nutrition, Cardiovascular Diseases and Aging group, IDIBAPS (Institut d' Investigació August Pi i Sunyer). Chair, Scientific Advisory Board, Torribera Mediterranean Center.

In a debate on the future of the Mediterranean diet, it is key for researchers to ask themselves questions about their own work. Where is the research going? What is the future role of academia in the dissemination and promotion of the Mediterranean diet? And, above all, how is the research applied in practice? To find out, we held a round table discussion in which researchers from different fields of food science debated the issue.

### Michael Sperling,

PhD, Vice President for Academic Affairs, The Culinary Institute of America (Moderator):

*In the next ten years, what translational research study would you like to conduct?*

### Miguel Ruiz-Canela,

PhD, Professor and Head of the Department of Preventive Medicine and Public Health, University of Navarra (MRC):

*I would like to address culinary epidemiology, a term that perhaps many know as gastronomic epidemiology. To cite an example: we want to measure the exposure and response of foods to their cooking, taking into account macro nutrients and micronutrients. We are measuring the nutrients in foods, but not their response to cooking processes.*

*That's why we recently did a questionnaire on the frequency of cooking at home, to see what foods are cooked and how often they are cooked. And the way they are cooked has an influence on health. So we see the consequences of cooking products, and the impact that different cooking techniques can have on each food.*

### Ramón Estruch,

MD, PhD, Senior Consultant, Department of Internal Medicine, Hospital Clínic de Barcelona. Professor, Faculty of Medicine, University of Barcelona. Research Director of the Nutrition, Cardiovascular Diseases and Aging group, IDIBAPS (Institut d' Investigació August Pi i Sunyer). Chair, Scientific Advisory Board, Torribera Mediterranean Center:

*We are working to disseminate the Mediterranean diet, trying to change the term to transmit it better, since I believe, for example, that a Mediterranean diet is more recommendable than a flexitarian one. Perhaps, for that reason, we can change the name and call it the “Parallel 40” diet, since it crosses the Mediterranean, but also California and its vineyards and China with its olive oil.*

*On the other hand, we work to adjust the Mediterranean diet to each profile. It does not work the same for everyone: it is not the same to think about the diet for a child, a pregnant woman, an elderly person, someone who does physical activity or for people who are in an office.*

### Rosa M Lamuela-Raventós,

PhD, Associate Professor and Director of the Institute of Nutrition and Food Safety, University of Barcelona:

*We are creating nutrition guidelines, and it could be interesting to cook according to gastronomic guidelines. There are plants or vegetables that no one would consider mixing, but they are nutritionally beneficial, and creating those kinds of combinations is the essence of the Mediterranean diet.*

*In addition, we believe it is important to focus on pregnant women and children. Pregnant women and children have to have a very healthy diet to ensure a positive diet in the future.*

### Jean-Xavier Guinard,

PhD, Professor of Sensory Sciences, Translational Sensory Research/Consumer Perspective, University of California, Davis:

*In my opinion the future is about more “deliciousness” and more sustainability. There is a whole series of research that has already been carried out and has had time to settle, and now we have to apply it, moving from traditional research approaches, which take into account independent variables, to more current approaches that study the dependent variables. In the Mediterranean diet there are many factors and causes that are related.*

*For example, I would like to study diet, but also lifestyle, and the effects of lifestyle on health and sustainability. So I think we can study any person, not only from the Mediterranean, but people who cook or have a similar gastronomy, and see what are the modifications in terms of their well-being when consuming this diet. This could be done, for example, with data such as those of Google, a speaker at this congress.*

**Michael Sperling:** What is the current state of research on the Mediterranean diet and what are the gaps in its dissemination?

**Ramon Estruch:** It is interesting to think that the Mediterranean diet is not only a food but a lifestyle. You have to take into account physical exercise, eating habits....

In the field of culinary medicine yesterday I saw a book with key answers that said: "We have to link the art of cooking with the science of nutrition". That is the key, we have to put the chef in the same place as the doctor, the nurse or the nutritionist.

Something that interests me a lot is also related to the senses. We eat based on taste and smell, and both chefs and doctors are interested in these aspects, but with a different perspective. What happens if we combine all these perspectives?

**Michael Sperling:** What specific strategies do you see as a translational strategy for the Mediterranean diet?

**Jean-Xavier Guinard:** We need to use the restaurant operations on college campuses as living laboratories, with students as study subjects.

At the CIA we have done this, and we have results. We have to influence students, who are good with social media management, to communicate and market these strategies.

These initiatives work very well thanks, in addition, to large companies such as Google, which apply it to their employees.

Therefore, we have researchers, operators, chefs, testing laboratory, large companies, students as influencers and new menus in schools. Delicious and sustainable menus. It's a model that has worked super well and I hope it spreads.

**Michael Sperling:** What opportunity does funding present for translational experimentation?

**Ramón Estruch:** The translational aspect is very important. We have done studies at the Hospital Clínic with pregnant women between 30 and 40 years old to ask them what relationship they have with the Mediterranean diet, and we found cases where healthy eating was not considered important.

There is a gap: there is the research, but then what people actually eat. Spain is a country that is in the Mediterranean, but it is not only Mediterranean, but a place that receives diets from other parts of the world.

What do we have to do, recover our diet, or specifically target specific parts of the population? Where do we have to direct the funding? This is the gap between research and action.

**Rosa M. Lamuela-Raventós:** We need money. Today's European projects call for transferring studies to reality, to action. If you don't transfer knowledge to society, you don't receive funds. We have to do it, for example, it had never occurred to me to use students as transmitters of the message.

**Michael Sperling:** What do we know about the interaction of diet with other foods? Are there other foods in the diet that are beneficial?

**Rosa M. Lamuela-Raventós:** More research needs to be done. We always look at ingredient by ingredient, and we have to look at how some ingredients relate to others. Not only look at what we cook, but how we cook them and how the ingredients generate synergies with each other.

**Michael Sperling:** How do you recommend bringing the diet model closer to the USA?

**Ramón Estruch:** If I knew it, I would be rich... (laughs) In school it's a little easier, but on a day-to-day basis, you also have to find solutions for restaurants. You have to have good food, but you also have to educate the population.

**Jean-Xavier Guinard:** A term I like to extend this diet is Plant Forward. We're not talking about cutting out meat altogether, but moving the dial. And changing lifestyles: In the U.S. we need to move more, be less sedentary.

Changes are already happening. The social aspects of food are changing. For example, with specialty coffee, where sustainable coffee has become popular. Things are moving in the right direction, but we have movements toward a more Mediterranean lifestyle, and it's about sharing and educating from good experiences.

**Ramón Estruch:** First of all, I think we talk little about lifestyles when we talk about diet, especially physical activity, and targeting leaders to achieve these changes, if I want to change society I know I should target the leaders of society.

**Michael Sperling:** We talk about chefs and doctors, but we also forget about educators, who in turn forget about food?

**Rosa M. Lamuela-Raventós:** There are beginning to be initiatives, such as the schools that go to learn to cook at the Fundació Àlicia. It should be mandatory to learn about these issues at school.

**Jean-Xavier Guinard:** Before, food education had to do with the family, and now we put it all in the schools. That's why what's happening in the universities is so exciting, because when they get to the universities young people for the first time are interested in food.

But we have to give responsibility back to the families.

**Ramón Estruch:** And it is also important to teach those who teach.

**Miguel Ruiz Canela:** There are actions that are being taken, but perhaps they are somewhat unknown. In Norway, for example, food is already being taught in the education system. Our eating behavior does not depend

only on free will, but also on the conditioning factors, and that is why we must focus public health on the family. We want to empower families and make them talk to the rest of the actors in the food system.

**Jean-Xavier Guinard:** It is true. For example, the last time I was at the Basque Culinary Center they did a course in which fathers and mothers were also learning about olive oil and cooking.

**Michael Sperling:** We know about the Mediterranean diet, but it is not practiced as much as we would like. In fact, the frequency is dropping. How do we drive change?

**Jean-Xavier Guinard:** I will talk about the "Flip strategy", the strategy for change that we carry out between the CIA and the Mushroom Council. You can substitute unhealthy ingredients for healthier ones with similar flavors. For example, we made recipes with meat and mushrooms, with 75% vegetable and 25% meat with great success. And with no change in taste.

We do the same with fats, dairy, sodium, sugars... It is an example of translational strategies with which we seek to make the change, but still make the food delicious.

**Miguel Ruiz Canela:** We have to motivate, train and empower. For example, we have the "End Chef" project, where we don't give cooking classes, but we make you think about what happens when you cook. Nutrients become bioavailable depending on how we treat them. What we do in this way is to give them the tools to implement the change on their own.

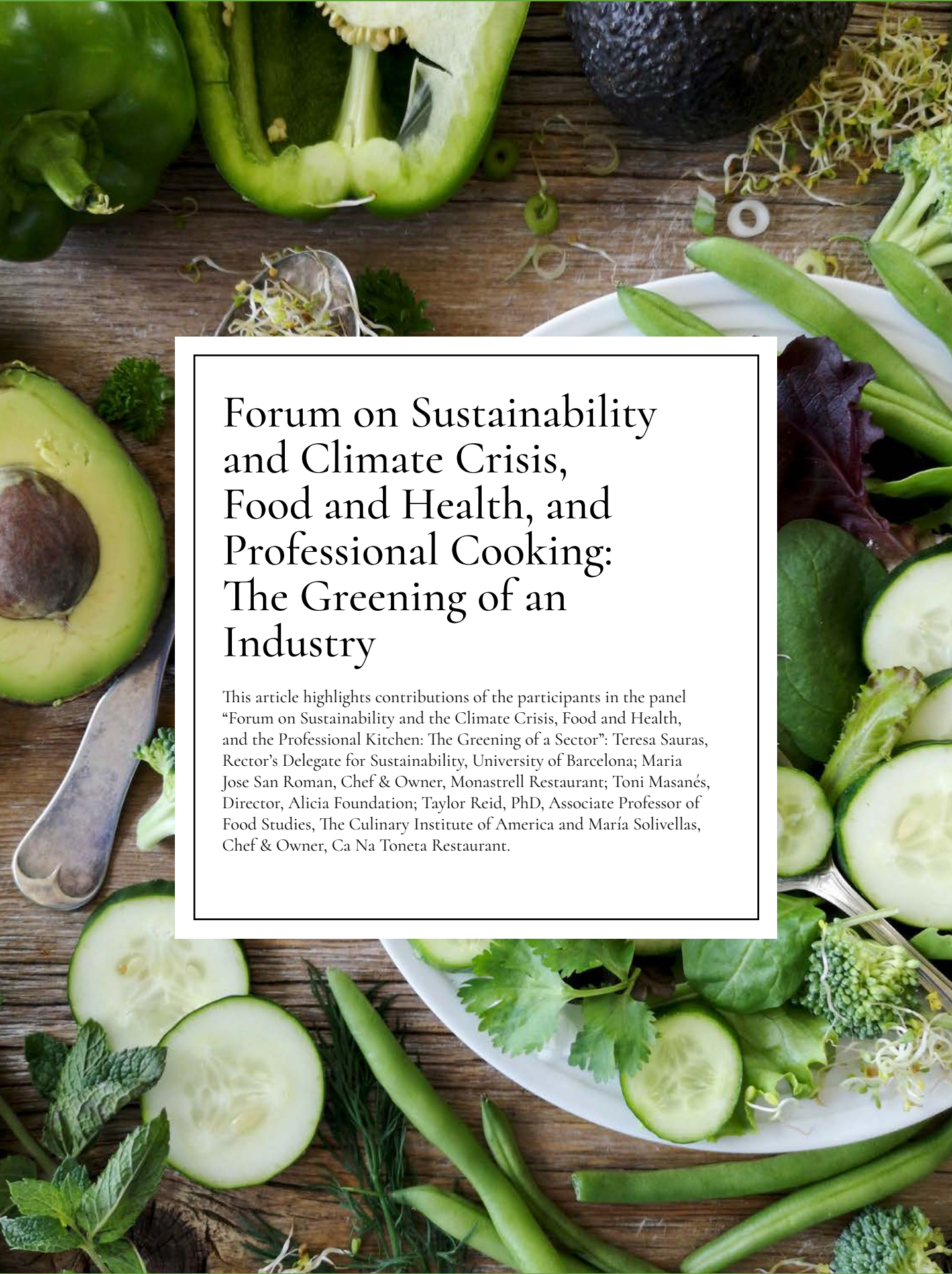
**Ramón Estruch:** We are focused on nutrition. In three steps. Personalized nutrition, population nutrition and planetary nutrition and we believe that the Mediterranean diet can fulfill all three steps.

97% of the population can follow the Mediterranean diet. We know that it is a diet that prevents diseases and that, in general, it is the best diet for the planet. That is why we have to work not to lose it.

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OLIVE OILS FROM SPAIN WORLD LEADERS

|                 |            |          |                   |            |               |              |            |
|-----------------|------------|----------|-------------------|------------|---------------|--------------|------------|
| GREEN OLIVE     | RIPE OLIVE | AVOCADO  | BASIL             | ARTICHOKE  | BITTER ALMOND | SWEET ALMOND | CHAMOMILE  |
| GREEN ASPARAGUS | FIG LEAF   | BERRIES  | FRESHLY CUT GRASS | DRIED NUTS | FENNEL        | OLIVE LEAF   | RIPE APPLE |
| GREEN APPLE     | ORANGE     | WALNUT   | PEAR              | PEPPER     | PINE NUT      | TOMATO PLANT | BANANA     |
| GRAPEFRUIT      | RETAMA     | ROSEMARY | TOMATO            | THYME      | STRAWBERRY    |              |            |



## Forum on Sustainability and Climate Crisis, Food and Health, and Professional Cooking: The Greening of an Industry

This article highlights contributions of the participants in the panel “Forum on Sustainability and the Climate Crisis, Food and Health, and the Professional Kitchen: The Greening of a Sector”: Teresa Sauras, Rector’s Delegate for Sustainability, University of Barcelona; Maria Jose San Roman, Chef & Owner, Monastrell Restaurant; Toni Masanés, Director, Alicia Foundation; Taylor Reid, PhD, Associate Professor of Food Studies, The Culinary Institute of America and María Solivellas, Chef & Owner, Ca Na Toneta Restaurant.

On an island in the Mediterranean, a cook has helped a farmers’ cooperative set up a WhatsApp group where they can announce to the island’s restaurants the surpluses they have that week of the organic produce they harvest.

At the same time, in the Hudson Valley, in the state of New York, United States, an app called “Farm To Table”, designed by a former student of The Culinary Institute of America (CIA), makes it easier for cooks to order from farmers so that the product arrives directly from the farm to the kitchens.

In Spain, a million-dollar investment is supporting the development, right now, the application that will allow the connection of the future between kitchens and farmers.

Three different stories and three different areas of the world far removed from each other. But many common elements and a shared objective: the need to green a sector centered on the professional kitchen to accelerate advances on the road to sustainability.



## THE GREENING OF THE KITCHEN: MANY PATHS TO REACH THE SAME DESTINATION

Making professional cooking more sustainable is a challenge that cannot be addressed solely from kitchens. From satisfying such a basic human need as food, the food industry has become a giant that has an impact on practically all levels of society and the economy, and for this reason it is necessary to pursue the objective of a professional kitchen that gets more ecological in as many avenues as possible.

The story with which this text began is the story of María Solivellas, a chef who, from her restaurant Ca Na Toneta, in Mallorca, has been fighting for 25 years to value the farmers who bring the product to her restaurant, so that everyone (including clients, journalists, and neighbors) recognizes the value that their work has in the island environment. She herself explains that

*“when I started cooking I saw the powerful connections my work has with everything: culture, health, pleasure, the environment, social connections. And since then I fell in love with my work.”*

But the kitchen is not the only actor that has something to say in the change. The Hudson Valley app was created by a former student of the CIA that aims, in the words of its professor, Taylor Reid,

*“to include sustainability in the college’s curriculum and bring it to the kitchen.”*

Education is the basis of any change, and for this reason, CIA courses such as “Introduction to Food Systems” or degrees such as “Applied Food Studies” seek to establish the necessary connections between food service and sustainability to start the change from the beginning. The use of technology to create an app like “Farm To Table,” born thanks to this educational system, is just one of the many ways to pursue food system transformation.



## PRODUCERS, THE FIRST LINK IN THE GASTRONOMIC CULTURE VALUE CHAIN

If we dare to affirm that, in a system as broad and complex as the food industry, education is the beginning and chefs and their restaurants are the end, in the middle there are many actors without whom the system would not have sense, and who must be listened to in order to build the solutions of the future.

The work of Solivellas in Mallorca or that of the CIA in New York show a similar conclusion: you have to get closer to the producer. Both María from the Mediterranean and the CIA from the United States affirm it: **“Producers have been largely forgotten in the great food service chain.”** In a world where chefs have become great stars of international influence, the ranchers and farmers who supply them with the basic raw material—without which chefs could not express themselves—remain in the shadows.

For this reason, María José San Román, from the Monastrell restaurant in Alicante, affirms that **“producers must be made fashionable, just as has been done with chefs.”**

*“Perhaps I cannot make eggs in my restaurant, but I do have the power to make those who produce them known and give them a voice and a name in the circle of haute cuisine to put them in their rightful place.”*

And it is that, as María Solivellas says, **“Farmers were somebody before us, but we are nobody without them.”**



## CHEFS AND SCIENCE, SCIENCE AND CHEFS, TOGETHER IN DEFENSE OF THE MEDITERRANEAN DIET

And if producers are one of the main voices to listen to in order to understand what is the human knowledge on cuisine generated over millennia, scientists are the other point to look at (and listen to) to get closer to knowing what is the scientific knowledge that will build the solutions to the food of the future.

This is how Toni Massanés, director of the Alicia Foundation, a cooking research center that seeks to innovate to improve people's diet with special attention to enhancing the gastronomic heritage of the territories, explains it. Massanés focuses on education, chefs and the knowledge of producers, but calls on scientists to share a table with them to build the gastronomy of the future: **"If we want to train chefs, we better have a base science that gives us the knowledge we need to do it."**

The scientific gap between the kitchen and the table has not been covered yet. **"At the Alicia Foundation we work collecting knowledge to develop our research and we realize that this knowledge does not yet exist."** **"I learned the other day that if food composition tables have 150 nutrients, we still have tens of thousands to know."**

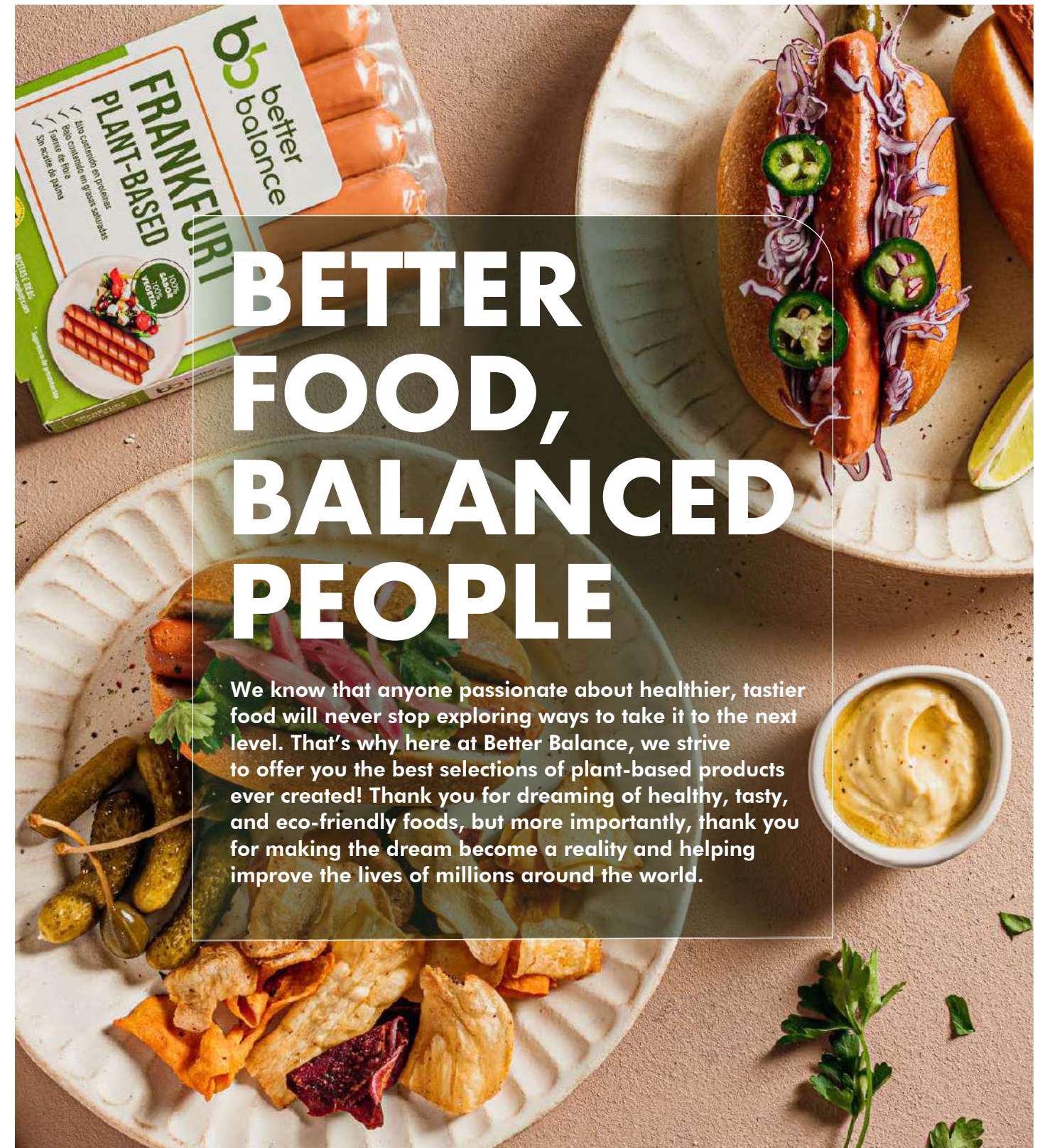
According to the researcher, scientists still have a long way to go to allow us to understand what happens in the kitchen, and why diets like the Mediterranean are the path towards a more sustainable and healthy diet. **"The fried fish, a traditional dish, is fried because this**

**improves the lipid profile of the fish, and the round of veal, a classic Catalan recipe, has less fat than a skinless chicken breast! And those scientific explanations, which serve to defend the sustainability of our kitchens, are still to be done."**

In short, according to Massanés, a lot of fantastic research remains to be done to continue demonstrating that in the Mediterranean, or as the restaurateur Ramón Parellada called it, **"the belly of the world"**, an excellent diet and gastronomy can be found.

In the same way, Maria José San Román, also calls for a connection between chefs and scientists. **"We restaurants are transversal in everything, and the impact we have is enormous."** That's why we have to take transversal measures (reducing meat consumption and food waste and increasing the consumption of organic products and fish) and, also, make transversal connections.

In short, it will be the scientists who will help to certify what producers have been demonstrating for centuries and chefs have been cooking for several years: that the Mediterranean Diet is the way forward, and that the recovery of Mediterranean recipes (such as veal round), Mediterranean products such as olive oil and Mediterranean practices (such as local agriculture or the consumption of fresh produce) are the main path to follow for the greening of large professional kitchens.



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## QUOTES

“ Food industry has become a giant that affects practically all levels of society and the economy, and that is why it is necessary to pursue the goal of a greener professional kitchen from as many avenues as possible. ”

**Taylor Reid, PhD, Associate Professor of Food Studies, CIA**

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“ Producers need to be listened to in the great chain of gastronomy. In a world where chefs have become great stars of international influence, the farmers and ranchers who supply them with the basic raw materials—without which chefs could not express themselves—remain in the shadows. ”

**Maria Solivellas, Chef & Owner, Ca Na Toneta Restaurant**



“ If producers are the great forgotten ones to listen to in order to understand human knowledge on gastronomy generated over millennia, scientists are the other point to look at (and listen to) to get closer to know what is the scientific knowledge that will build the solutions to the food of the future. ”

**Toni Massanés, Director, Alícia Foundation**



## The Culinary Institute of America and Barcelona Culinary Hub Join Forces to Promote Research and Education in Gastronomic Sustainability

Sustainable Culinary ThinkLab aims to innovate and respond to the sector's current needs by acting as the platform for research, dialogue and debate to promote gastronomic sustainability within the food and restaurant sectors.

In recent years, environmental sustainability and health have become increasingly important as an integrated and fundamental pillar for the sustainable development of society. In a society with growing awareness of environmental responsibility, the gastronomic sector must respond by coming up with sustainable solutions through professionalization, digitalisation and enhanced access to critical data and strategic insights, and the creation of new gastronomic business models.

Food systems in the aggregate today account for more than 40% of global greenhouse gas production. Many other data sets point to a whole range of other negative, external impacts. These realities force us to rethink our current food systems and also our diets. Food systems must not only find responses to the health needs of our population but also to the sustainability of the planet and to decent employment.

[Sustainable Culinary ThinkLab](#) is the research and discussion platform to promote gastronomic sustainability within the restaurant, food service and related sectors through a virtual platform that will act as a laboratory for culinary innovation. The priority of this educational project initiative is to link up experts from Europe and the Mediterranean, the United States, Latin America and beyond with students from across the world.

The educational platform created between [Barcelona Culinary Hub](#) and [The Culinary Institute of America](#) is part of a broader framework of collaboration between the two institutions to promote cooperation between them in the fields of research, professional development and impact on the industry as well as to foster international knowledge transfer through educational and intercultural activities and projects involving students, academics and professionals from the different areas of the two institutions.

To this end, the platform works across 6 main areas: product, people, actions, community and territory, institutions and technology. More broadly, Sustainable Culinary ThinkLab seeks to

advance innovation and respond to the current and emerging needs of the sector around business management including the business of change; progression towards new models of food production and foodservice; achievement of the Sustainable Development Goals set in the 2030 Agenda; and the elevation of training and leadership development by equipping industry professionals with the knowledge, skills and tools they need to meet the challenges of our time, and thereby renew our industry for a secure future.

Within this framework, the two organisations carry out **joint actions and projects to promote research and innovation in food sustainability**; explore traditional and culturally rooted models of sustainable food and production, and collaborate with the architects of change in the geographical regions of both organisations.

Initially, the Sustainable Culinary ThinkLab is developing a **joint podcast to share information around issues and innovation at the intersection of sustainability and the fields of food and gastronomy**, seeking to make access to practical expertise and key learnings from case studies in change more accessible to all in the sector.

# PEANUTS

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## Science and Marketing: Knowing Olive Oil in Depth to Communicate it Better

This article highlights contributions of the participants in the panel “Olive Oil, Nuts and the Plant-Forward, Mediterranean-Inspired Kitchen”: Greg Drescher, Senior Advisor for Strategic Initiatives, The Culinary Institute of America; Teresa Pérez, CEO, Interprofesional Aceite Oliva Español; Rosa M. Lamuela-Raventós, PhD, Associate Professor and Director of the Institute of Nutrition and Food Safety, University of Barcelona.

Olive oil is, perhaps, the great standard-bearer of the Mediterranean diet, the liquid gold is the crown jewel of a region that has built a model diet based on one of the healthiest fats on the planet.

But, although we are generically aware of its advantages, we cannot always clearly detail its benefits, the reasons for its importance and the centrality of this product in the leadership of the Mediterranean diet when it comes to designing a healthy future.

To exist is to communicate and, in order to communicate effectively, we need solid discourses that are based on data and stories, on stories that tell us, from real facts, stories that convince us. That is why today we have asked ourselves: How does science explain the benefits of olive oil? And how do we explain those benefits afterwards?

## POLYPHENOLS, A DIFFICULT WORD THAT SEEKS TO MAKE OUR LIVES EASIER

To reach an understanding of complex issues, we must lose the fear of complex knowledge. To begin with, a simple explanation: polyphenols are antioxidant molecules found to a greater or lesser extent in almost all plants. That is, they are a plant compound that helps to delay the oxidation of molecules in the body.

With a simple paragraph we introduce one of the great advantages of olive oil. Rosa M. Lamuela-Raventós, Associate Professor at the UB and Director of the Institute of Nutrition and Food Safety, explains:

“Oils (and nuts) are great possessors of polyphenols, and their continued use has been shown to cause remarkable benefits in the antioxidation of the body.”



## STUDIES TO CORROBORATE PERCEPTIONS

This is demonstrated by a study<sup>1</sup> carried out by Rosa M. Lamuela Raventós which investigates the presence of polyphenols in the Mediterranean Diet. Here, the effect on the human body of the consumption of oils and nuts was analyzed for six months. In just half a year, the people analyzed improved their memory and reduced their cortisol levels, i.e. stress, proving that, without a doubt, the consumption of polyphenols from oil and nuts improves cognitive performance, and is useful to be used prebiotically and post-biotically.

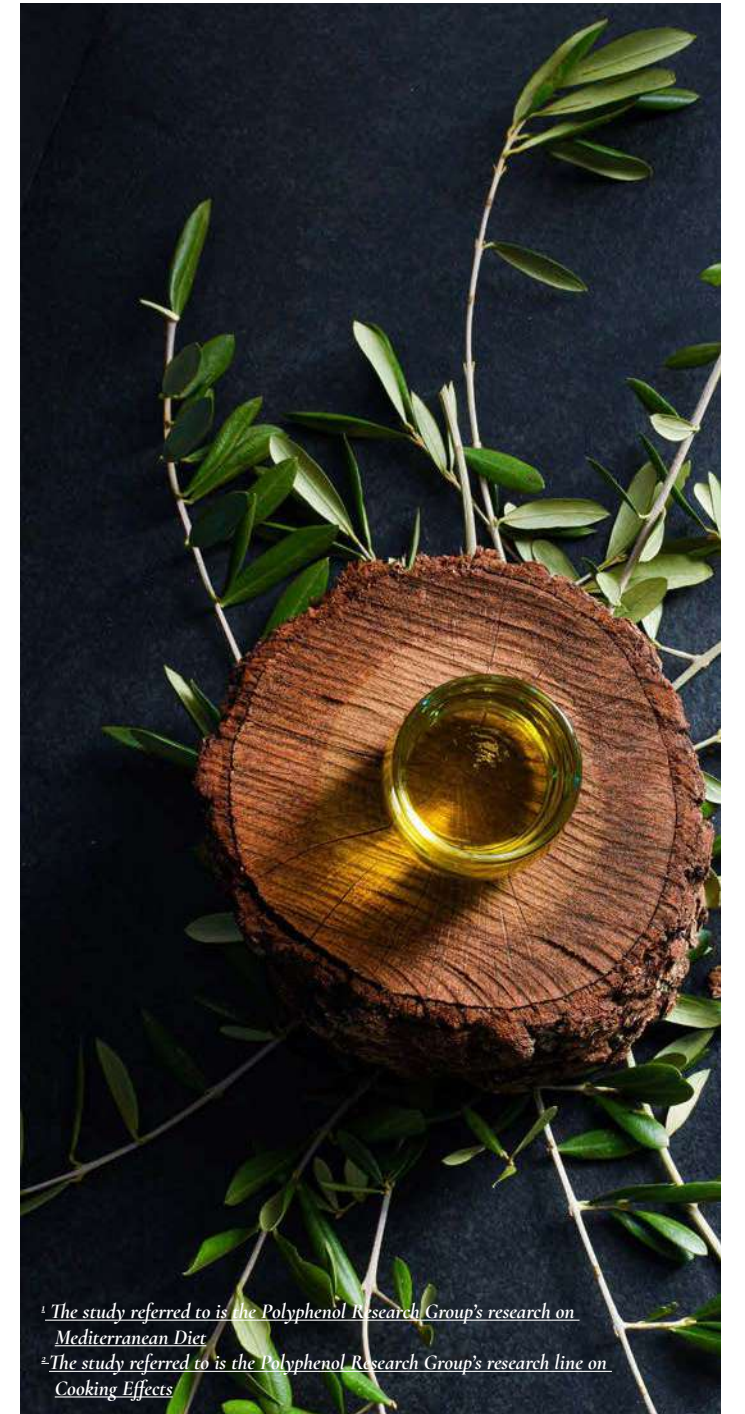
In short, oil and nuts help deoxidize the mind and lead to healthier mental performance. In the same vein, the professor also wields the results of Predimed, a study that seeks to analyze the health effects of the Mediterranean Diet.

In its latest advances, the study focuses not only on the consumption of olive oil and its polyphenols in the elderly, but also on their reaction when we cook with them and do not use them simply to dress a salad. The study has shown that, after cooking with olive oil in recipes typical of a Mediterranean diet, the public studied did not have a decrease in cognitive activity.

Not only that, in another study, where the effects of cooking on the polyphenols present in food were studied, the following study was conducted<sup>2</sup>, it is shown that, despite the loss of some phenolic compounds during cooking, the polyphenols in that food remain high and, not only that, but they also prove to help the foods they accompany stay in the body longer, offering their beneficial effects.

“There is a symbiosis effect, the carotenoids in a tomato are more available when we prepare, for example, a tomato sauce in conjunction with olive oil.”

In short, as noted at the beginning, olive oil and nuts, two pillars of the Mediterranean diet, provide our body with more nutrients and, above all, keep our brain more awake.



<sup>1</sup> The study referred to is the Polyphenol Research Group's research on Mediterranean Diet

<sup>2</sup> The study referred to is the Polyphenol Research Group's research line on Cooking Effects

## COMMUNICATING WHAT SCIENCE TELLS US TO THE WORLD

Now that we have the scientific support that tells us the secrets of the benefits of olive oil, the next question arises: How do we communicate these benefits? Teresa Pérez, CEO of Interprofesional Aceite Oliva Español, is clear: **“We have to promote not so much the appearance of olive oil but its healthy properties”**. In other words, less talk about color and texture, more talk about health.

The idea is that the consumers of the future, those who are now in schools, consume oil not for its appearance, but for its benefits, and that they are fully aware of how positive it is not only for their organism, but also for the environment.

As Interprofesional Aceite Oliva Español explains, **“olive oil crops, for example, are great CO<sub>2</sub> fixers. 1 kg of crop can fix up to 11 kg of CO<sub>2</sub>, i.e., a tenfold increase in CO<sub>2</sub> fixation capacity.”** In a country like Spain, which has the world’s largest production of organic olives, with 70% of the total national surface area of this crop, this fact is key to understanding the importance of liquid gold.

## LOCAL PRODUCT, INTERNATIONAL MESSAGES

As science has already pointed out, olive oil is not only good as a seasoning, but also improves when it comes to cooking. It is, for example, the one that best withstands heat without losing its properties.

That is why, when olive oil, this very local product, is communicated abroad, it is necessary to attack on all fronts. Interprofesional Aceite Oliva Español is carrying out campaigns in Mexico and Germany where they talk about flavor, but also about sustainability. On the other hand, in China, for example, they talk about how to introduce oil in food and cook it correctly. In addition, Interprofesional has created embassies in these countries where they work with local chefs to promote the use of oil, and there is an agreement with Compass to tackle child overweight through the use of olive oil in cooking.

In an unsustainable world, oil, healthy from its cultivation to its impact on the body, has to be one of the important legs of the shift to a healthier food system. The data is there, and now that we know it, we can communicate them properly because, today, we can no longer look the other way and it is time to make the world aware so we start to eat better.



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## OLIVE OIL AND THE PLANT-FORWARD KITCHEN

If one considers the weight of the evidence at the intersection of nutrition science and the science of climate change, biodiversity and other elements of achieving a sustainable planetary future, one of our central challenges is clear: depending on what part of the world we are considering, we need to either preserve or shift to food consumption patterns that favor the plant kingdom. The traditional Mediterranean diet is one such plant-forward pattern—a food culture based on a set of core ingredients and fundamental culinary strategies and techniques. One of these, olive oil and its related uses and techniques, is at the very epicenter of this dietary pattern.

A consideration of olive oil and the plant-forward kitchen not only in the greater Mediterranean basin but also in the countries of the Mediterranean diaspora—and now well beyond—was the inspiration behind The Culinary Institute of America’s inclusion of a section called “Olive Oil and the Plant-Forward Kitchen” on its [plantforwardkitchen.org](https://www.plantforwardkitchen.org) site. Recently as part of this, and in collaboration with the [Menus of Change University Research Collaborative](#) and the International Olive Council, the CIA led a [project of discovery](#) around the vast repertoire of [olive oil-based sauces](#) (i.e., sauces, dips and spreads) one finds in the Mediterranean world. The creativity, flavor diversity and applications associated with these sauce-making traditions are impressive.

Some of these—such as hummus and pesto—have garnered global recognition. But many others stay largely hidden outside of the geography of their origin. Others are sort of in the middle in terms of their visibility. But as a group numbering into the many dozens, they collectively speak to the brilliance of the Mediterranean kitchen. Starting with a market basket of olive oil, garlic, nuts and seeds, roasted vegetables, pulses, herbs, spices, other aromatics, citrus, and more—and some timing pounding with a mortar and pestle (or a food processor or blender)—the results of these olive oil-based sauce-making traditions clearly merit wider recognition.

Are you hungry now for a taste of these sauces? Maybe in a [Tunisian market sandwich](#)? Ready to make [harissa](#)?

# TUNISIAN MARKET SANDWICH

The Tunisian Market Sandwich is one of the best sandwiches that the Mediterranean has to offer! Filled with Harissa, carrot salad, tuna confit, potatoes, hard boiled egg, and Mechouia (a Tunisian charred vegetable dish), the sandwich is complex and flavor-packed. Use an olive oil with a ripe fruity flavor.

Find in this links the [video recipe](#), and printable [recipe PDF](#).



## INGREDIENTS

Tunisian Carrot Salad

5-6 ea. Carrots, medium, peeled, large grated

1 ea. Garlic clove, chopped

as needed, Sea salt

1 tsp. Caraway seed, ground

¼ tsp. Cumin seed, toasted, ground

1 Tbsp. (+ more as needed) Harissa

1 Tbsp. Lemon juice, freshly squeezed

2 Tbsp. Extra virgin olive oil

## METHOD

1. For the Carrot Salad: Using the large holes of a grater, grate carrots into a bowl. In a mortar, pound garlic to a paste with a pinch of salt. Stir in the caraway, cumin, lemon juice and harissa, mixing well, then the olive oil. Beat with a fork or a small wire whisk to amalgamate and immediately pour over the grated carrots. Set aside at room temperature for about 30 minutes to develop flavors.
2. For the Mechouia: Preheat a 450°F oven.
3. Roast the tomatoes and onions on a baking sheet in a hot oven or under the broiler until the peel is charred, but the flesh is still firm. Remove from the heat. Let sit until cool enough to touch. Remove the peels. Julienne the onion. Remove the seeds from the tomatoes and julienne the tomatoes.
4. Combine the roasted peppers and chiles, onions and tomatoes.
5. Add the parsley and toss to mix well.
6. In a separate bowl, Whisk together the oil and lemon juice. Season with salt and pepper. Add to the pepper mixture and adjust the seasoning.
7. To Assemble: Cut the bread in half. Remove some of the dough in the middle.

Slather harissa all over the inside of the bread. Stuff in the potatoes, mechouia, lemon, olives, capers and tuna a little at a time, ending with the tuna. Sprinkle on enough olive oil to drizzle down inside. Serve immediately.

Source: Adapted from Nancy Harmon Jenkins, author, The Essential Mediterranean

## Mechouia

2 ea. Red peppers, roasted, peeled, seeded, julienned, reserve juices

2 ea. Green peppers, roasted, peeled, seeded, julienned, reserve juices

1-2 ea. Jalapenos roasted, peeled julienned, reserve juices

4 ea. Tomatoes, medium

2 ea. Onions, small, unpeeled

½ cup Parsley leaves, coarsely chopped

3 Tbsp. Extra virgin olive oil

1 Tbsp. Lemon juice

as needed, Sea salt

as needed, Ground black pepper

1 Tbsp. Cilantro, fresh, minced

## To Assemble

4 ea. Crusty bread rounds or crusty bread

1 ea. Potatoes, yellow-fleshed, medium, boiled, peeled, thinly sliced

1 Tbsp. Capers, rinsed

2 ea. Eggs, hard-boiled, coarsely chopped

1.75 oz. Tuna, confit

1 ea. Preserved lemon peel, chopped

½ cup Black and green olives, pitted, coarsely chopped

As needed, Baby greens or salad to serve with

## HARISSA SAUCE

*Harissa is a rich paste made from dried chiles, garlic, lemon, cumin, caraway, and olive oil. It's commonly enjoyed in Libya, Tunisia, Algeria and Morocco. Harissa has a well-rounded chile flavor and a wide range of heat, depending on chiles used. Harissa can be thinned with olive oil and lemon or vinegar to make a vinaigrette or sauce, and is delicious in chickpea salad, or as a condiment with proteins.*

*Find in this links the [video recipe](#), and printable [recipe PDF](#).*



### INGREDIENTS

9 ea. (3 oz.) New Mexico or guajillo chiles, dried, stemmed, seeded

1 ea. Garlic clove, crushed with  $\frac{1}{4}$  tsp. salt

$\frac{1}{4}$  tsp. Coriander seed, ground

$\frac{3}{4}$  tsp. Caraway seed, ground

$\frac{1}{4}$  tsp. Cumin, toasted, ground

as needed, Extra-virgin olive oil

### METHOD

1. Soak chiles in water for 15 minutes. Drain well.
2. Place chiles in food processor or blender with garlic and spices. Puree until smooth while adding olive oil and water if needed.
3. Add enough olive oil to make a thin layer of oil. Cover tightly and keep refrigerated.

### Note

If coarse, place in a blender and blend well, then push through a mesh strainer using a rubber spatula.



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