

RELISH

Project Summary

H. Rosi Song and Janita Van Dyk, September 15, 2025, Version No. 1.0



D1.2 Overview

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Abbreviations and acronyms

| TERM | DEFINITION | TERM | DEFINITION |
|--------|------------------------------|---------|---------------------------|
| CA | Consortium Agreement | KER | Key Exploitable Result(s) |
| D[No.] | Deliverable [No.] | PC | Project Coordinator |
| EC | European Commission | T[No.] | Task {No.} |
| GA | Grant Agreement | WP[No.] | Work Package [No.] |
| ICH | Intangible Cultural Heritage | | |

Consortium

| ROLE | NAME | SHORT NAME | COUNTRY |
|--------------------|--|------------|----------|
| Coordinator | University of Durham | UDUR | UK |
| Partner | Atlantic Technological University | ATU | Ireland |
| Partner | Barcelona Supercomputing Center | BSC | Spain |
| Partner | City, University of London | CITY | UK |
| Partner | Fundació Alícia | FA | Spain |
| Partner | Institut LYFE | LYFE | France |
| Partner | Instituto Superior Técnico | IST | Portugal |
| Partner | Roskilde University | RUC | Denmark |
| Partner | University College Cork | UCC | Ireland |
| Partner | University of Alicante | UA | Spain |
| Partner | University of Gastronomic Sciences of Pollenzo | UNISG | Italy |
| Partner | University of Milan | UMIL | Italy |
| Partner | University of Toronto | UOT | Canada |

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Executive Summary

This report is a deliverable (D1.2) of Work Package 1 “RELISH A – Project Coordination and Data Management” in the RELISH project. The D1.2 “Project Summary” report introduces the RELISH project, its critical framework and a discussion on how culinary recipes can work as cultural and digital tools to strengthen EU cultural heritage. The document also provides an overview of the project’s methodology, the objectives and tasks of its work packages and an expanded bibliography that supports its research.

RELISH, or Reframing European gastronomy Legacy through Innovation, Sustainability and Heritage, offers a pathway to put into practice culinary recipes, associated dishes and foods as cultural and digital tools to strengthen a crucial aspect of the EU’s common cultural heritage. RELISH will innovate how culinary recipes are used to promote cultural heritage and educate emerging adults. It will also create an interactive online platform for recipes, food memories and other gastronomic elements. RELISH partners will work with emerging adults in Europe and new digital technologies to create value in understanding shared food cultures.

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1 Introduction: What are recipes?

A significant part of Europe's abundant and priceless cultural heritage manifests around the world through its rich food traditions. Yet, as Europe's own food consumption is becoming increasingly global, it is vital to understand how changes in food practices can lead to losses in senses of place and identity. While the connection that exists between food and cultural identity is generally acknowledged, there is no actionable awareness about how this link can and should be concretely fostered and sustained.

An analytical framework applied across many disciplines, foodways encompass the social, environmental and economic systems of food production and consumption, as well as the cultures, traditions and histories of specific places and communities. A foodways framework gives the people who cook, serve, innovate and produce food primary agency (Cinotto et al. 2019). **Culinary recipes** are an important vehicle for foodways and practices—they intrinsically serve as the primary conduit for transmitting culinary and cultural knowledge across places and generations.

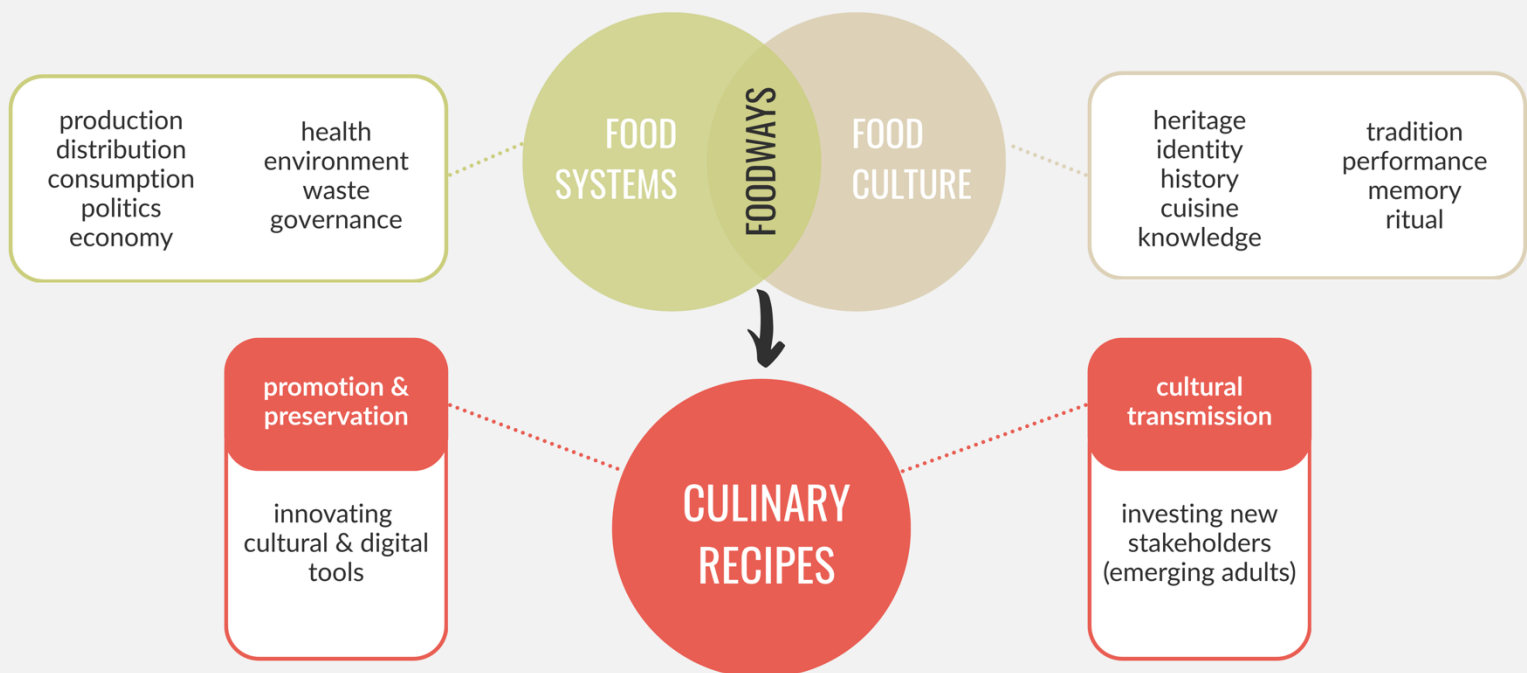


Figure 1: RELISH's approach to innovating recipes for EU culinary heritage.

In their diverse forms, recipes illuminate the cultural worlds and food systems from which they originate. While these ideas are commonly acknowledged, definitions of

recipes remain abstract or commonsense in that they guide a variety of public interests in food and culture and are reflected in the power of social media to shape current food and cooking trends.

RELISH proposes a deeper understanding of recipes to pursue a bidirectional link between food systems and food culture. Recipes can also be tools for understanding foodways and responding to both food systems and food culture challenges. We ask: **What are recipes? How do they work? What do they do?**

1.1 Philosophical framework

To approach these questions, we disentangle the recipe from its most basic and intuitive outcome: the making of a dish. As RELISH demonstrates, once recipes are disentangled from their immediate connection to food preparation, they can be valued for their expansive cultural scope. In particular, they can be used to promote and preserve cultural heritage because they link food to cultural identity through tangible, textual, oral and new digital knowledge and media. Recipes ensure generational cultural transmission, promote wellbeing through social food sharing and instil awareness about seasonal eating and sustainability of ingredients and culinary practices.

Recipes help individuals learn to recognise and value collective food traditions, (Shapin 2014). They are also channels for local and global cuisine, a medium to experience a variety of tastes or dishes, as a form of media entertainment with celebrity chefs and cooking competitions, and as a language to express dietary needs or choices, healthy living and good taste. Recipes have also been capitalised by food marketing companies, reflecting popular food trends in Europe's €1 trillion food industry, such as in the promotion of the Mediterranean Diet. They are also used as research tools and materials in specialised fields, such as Food Science, Food Studies, Food Justice and more.

While recipes intersect food, culture, tradition and history in a similar manner that foodways capture the complexities of the food system, RELISH works with recipes because they embody strong individual and collective and experiences between food and culture. We reframe recipes as a capacious form of communication to strengthen EU cultural heritage and heritage values, enhancing social cohesion at home and cultural recognition abroad.

RELISH builds on the recent work of philosophers of food and their tackling of aesthetic, epistemic, ethical and ontological questions about our dietary choices and what we consume. We do so to better understand the complex dimensions philosophers examine around eating and food, as issues, such as naturalness, hunger,

authenticity, identity, waste, food justice. These issues cannot be hastily generalised nor can their meanings be taken for granted (Borghini 2015; 2024). A philosophical approach serves to develop interpretative frameworks for appraising food questions and debates, to identify conceptual issues and to inspire ethical and political reflection. It gives a broader context from which to examine the food system, from its production, consumption, and communication.

With respect to recipes, philosophical inquiry serves as a useful analytical lens, as recipes allow questions of both method (what recipes do) and content (how recipes work) indispensable for understanding food practices (Borghini 2015; Borghini and Engisch 2022).

Therefore, RELISH treats recipes as complex social artefacts that weave together culture, politics and socioeconomic meanings (Borghini et al. 2020). They are the bedrock of culinary cultures and cuisines, holding the knowledge of how to prepare safe, nutritious and tasty dishes that span generations, cultures and vast geographies. By approaching the recipe as an idea rather than expected outcome (a dish), we can examine the various negotiations that go into a culinary form's recognition and acceptance. Recipes should be recognised as social entities that represent cultures, environments and norms (Floyd and Forster 2016). As such, they allow a further inquiry into our relationship with our society, values and cultures.

If philosophers inform us that we can look at recipes as conventions or institutional acts, protocols or works of sensory experiences, we can also pursue research that explores the applicability and usefulness of the connections between recipes and other human activities, as well as consider the cultural frameworks from which public debate around recipes can or should take place (Borghini et al. 2020; Borghini and Baldini 2022).

1.2 Brief summary

In this report we present the link between recipes and cultural heritage and how they can be used to promote cultural values. We map this process in the Work Packages designed for the project.

Throughout, recipes are treated as ideas and outcomes of selection guided by human fiat from which to foster and transmit cultural heritage as intimately connected to identity and wellbeing. We examine the role of innovative forms of communication combining visual storytelling with recipes and powered by digital and AI technologies to highlight the interactive processes that elevate recipes to valuable social artefacts.

It is from collectively recognising and accepting recipes as more than instructions that they can thus be internalised as representations and embodiments of cultures, capable of reflecting different and changing environments and norms. RELISH foregrounds that digital and cultural tools can use many of these under-exploited dimensions to expand and strengthen the relationship between recipes and food culture as values and opportunities for a more inclusive and innovative culinary heritage present and future.

2 Objectives and Questions

This report (D1.2) presents the rationale of why and how the RELISH project uses recipes. This report is a deliverable of Work Package 1: “RELISH A – Project Coordination and Data Management.”

Our overview of scholarship on recipes offers an interdisciplinary approach to understanding the relationships between food, culture and identity, as well as a social framework to ensure the present and future transmission of values and knowledge necessary to promoting sustainable food practices and the preservation of cultural heritage. Culinary recipes play an under-utilised role in fostering European culture and traditions and promoting sustainable and inclusive local, regional and national development. Their cultural values can address societal issues, including environmental protection, social inclusion, migration, gender equality and social justice.

RELISH turns to food and food-related culture through recipes to suggest innovative forms of communication to help internalise and embody cultures while reflecting different environments and norms (Floyd and Forster 2016). We outline how we mapped approaches to recipe innovation in the project’s Work Packages to design a processual programme that tackles key questions regarding food culture and recipes. Simultaneously, we discuss how this programme will produce data to frame and guide future research and action in EU food, culture and sustainability priorities.

Food culture and its artefacts are significant parts of Europe’s priceless cultural heritage and its Intangible Cultural Heritage (ICH) and therefore need to be recognised and valued. Recognition and valorisation are more important than ever; people living in the EU face rapid societal transformations while facing the great challenge of our time—climate change. In addition to the environmental deterioration pointing to an eventual loss of a way of live, we face a lack of cultural transmission that comes from a naturally occurring generational divide while undergoing a moment when our food habits are subjected to intense homogenising agents such as the soft power of social media and increased globalisation.

We urgently need to understand what is being culturally lost in these processes, and how connections between food and cultural identity can be concretely fostered and sustained. At the same time, the situation should also be seen as an opportunity to build an inclusive EU society with bolstered common ties, given that we live in an increasingly connected but also fragmented world due to technological changes and geographic mobility.

To respond to these challenge areas, RELISH offers a pathway to put into practice culinary recipes and food culture as cultural and digital tools to strengthen a crucial aspect of EU's common cultural heritage.

2.1 Structure of the report

This report presents a general methodology of the project, followed by a section detailing a comprehensive discussion of how recipes are understood and utilised in RELISH. The second section offers a summary of how the project actions and objectives are mapped onto the project's Work Packages.

After an overview of its methodology, the report's first section offers a thorough discussion on recipes and their ontology, value and connection to culture and their importance for the future. We explain how the project works to instrumentalise recipes' potential, as well as offer a framework from which to shape future initiatives around researching and promoting food cultures. We then examine the challenges faced by future generations surrounding their foodscapes. We offer a rationale for focussing on a particular group, **emerging adults**, as a central stakeholder to shape and transform the food system as a consumer and the recipient of generational transmission of knowledge, skills and values. We briefly discuss digital tools that can mediate this transference and what it means to engage emerging adults to understand recipes as food heritage, while empowering them to address future environmental challenges through sustainability practices in their everyday lives.

Instead of simply presenting the objectives and tasks of each of the Work Packages, the report's second section is organised by the concepts underpinning the project and which sustain and build its process.

In the concluding section, we offer selected future considerations in the changing landscape of the relationship between the environment and our food system, followed by an expanded bibliography that supports the research of the project.

3 Methodology

The impetus for RELISH developed from a basic but fundamental question: **What is a recipe?** Working in collaboration with the philosophers in the consortium, we establish the connection between recipes and cultural heritage through philosophical research on the ontology of recipes (Borghini 2015; Borghini et al. 2020; Borghini and Engisch 2022; Borghini, Piras, et al. 2023). If we accept that every dish is recognised by a performative utterance, as in, “This is fettucine Alfredo,” a food’s identification can only be grasped by those who are already acquainted with the dish, and that identification rests on a process of apprenticeship (Borghini 2015). Recipes play an intrinsic part in this identification and apprenticeship. As such, they can be understood as social artefacts embedded in a process of cultural identification that reveals a broader conceptual map.

For example, identification requires producing and drawing on specific criteria relevant to RELISH and cultural heritage: what makes a recipe typical; how can recipes be adapted, for example, to foster environmental sustainability or social integration; what should be understood or taught about historical culinary accuracy in replicating a dish; what kind of storytelling potential can be found in recipes; and, what are the attributes or qualities attractive to an emerging adult demographic, future food professionals and general audiences that can work in the short term to influence social and cultural behaviour? The project’s methodology identifies and harnesses these criteria in traditional EU recipes to support the conceptualisation, design, and user-centred development of a data driven web platform.

RELISH treats recipes as ideas and as outcomes of selections from which to foster and transmit cultural heritage intimately connected to one’s identity and wellbeing. Part of this strategy is an innovative form of communication, combining visual storytelling with recipes and powered by digital and AI technologies, which can reproduce the interactive processes that elevate recipes to valuable social artefacts. It is from collectively recognising and accepting recipes as more than instructions that they can thus be internalised as representations and embodiments of cultures, capable of reflecting different environments and norms.

RELISH foregrounds that digital and cultural tools can use many of these under-exploited dimensions to expand and strengthen the relationship between recipes and food culture as values and opportunities for society and research. We build on how food historians have already used recipes from the past to generate semantic data on various levels and assemble digital databases of European recipes to recognise their cultural value (Klug and Kranich 2015; Eibinger et al. 2021).

To cement this recognition and guarantee its generational transmission, RELISH turns its attention to emerging adults as its main user demographic. The ages between 18 and 25 years are recognised as a distinct period of development where identity explorations take place and cultural attitudes, beliefs and heritage are worked out (Arnett 2000); emerging adults can be more open to progressive social values when it comes to equality, diversity and inclusion. Studies have also shown how this demographic group is more open to changes in their food consumption to address sustainability issues (de Boer et al. 2016), which supports behavioural interventions, public education campaigns and policies aimed at dietary patterns in young adults (Slotnick et al. 2023; Larson et al. 2019).

Likewise, given how easily their dietary patterns are impacted by their living conditions, emerging adults can benefit from food education and healthy eating promotion strategies (Nelson Laska et al. 2010). As emerging adults enter the labour and housing market, they are also developing and maturing their own cooking practices and food habits while being confronted with the demands of modern life: less time to cook while being exposed to multiple and diverse gastronomic traditions in an increasingly global foodscape.

Most urgently, emerging adults are about to experience the most transformative years as we transition through environmental change. In terms of their familiarity and use of technology, data from studies prove that visual aids are often among the most effective, fast, memorable and ethically desirable form of communication with this group (Garcia-Retamero and Cokely 2013).

The methodology pursued by RELISH follows the philosophical use of a broader conceptual web in which two moments are at play: a) teasing out assumptions, implications and goals of a concept and, b) redesigning the concept map to accomplish this task effectively. The project is organised in four phases: the first establishes the needs RELISH seeks to address, the second development stage centres on user experience, the third involves a period of testing and demonstrating uses of the project's Culinary Heritage Tools and, the final stage implements and disseminates these tools with speculative solutions for the future of EU culinary culture.

This work, along with the tasks accomplished by RELISH, are illustrated by the **Action Points** (Figure 2), assigned to the different partners of the consortium at specific moments of the project. RELISH also develops and tests pilot solutions to encourage cooperation between local and national organisations at the European level. These solutions will also enable alliances between arts/cultural and other sectors to use their culinary culture to promote inclusive social values and help the wellbeing of citizens at home and abroad.

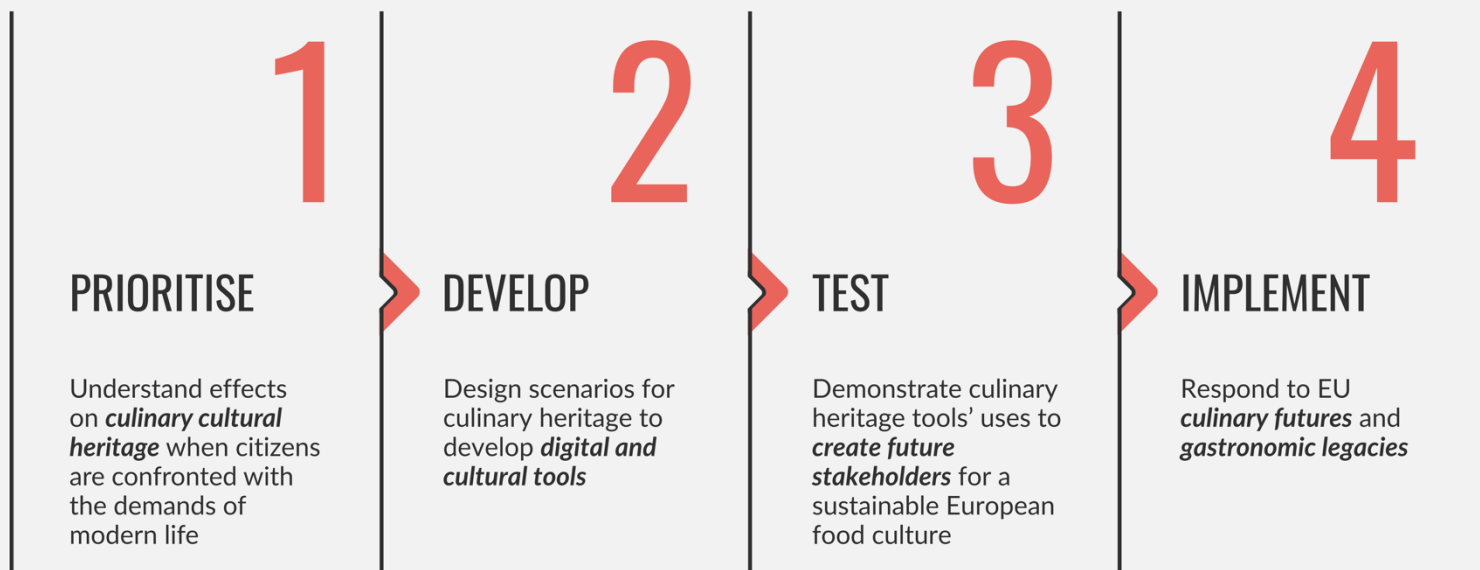


Figure 2: RELISH Action Plan.

ACTION 1: SETTING UP TRADITIONAL RECIPES AGAINST THE PRESENT FOR THE FUTURE

The goal of Action 1 is to understand what happens to culinary cultural heritage and knowledge transmission when citizens are confronted with the demands of modern life: less time to cook and exposure to multiple and diverse gastronomic traditions in an increasingly global foodscape. Action 1 also aims to collect data and establish an analytical framework that will feed into Action 2.

Data will be collected through surveys, historical recipe collections and literature review, narrative and cooking workshops, and analysis of media and digital landscape of recipe tools in the marketplace.

ACTION 2: DEVELOPMENT OF A CULINARY HERITAGE TAXONOMY FOR DIGITAL AND CULTURAL APPLICATIONS

The goal of Action 2 is to take the complex and dynamic relationships that determine heritage, identity, sustainability, and wellbeing communicated in culinary recipes and develop useful tools suitable for

our target demographic. RELISH targets emerging adults between the ages of 18 and 25, whose connection to food culture and consumption are mediated and shaped by social media, digital technology and geographic mobility, changing family structure and rituals, and who are experiencing their most significant and transformative years in a period of environmental change.

RELISH will build a specific taxonomy that can connect EU culinary cultural heritage with their everyday experiences, drawing from data on emerging adult surveys and workshops generated in Action 1.

ACTION 3: CULINARY HERITAGE TOOLS: TOWARD A NEW UNDERSTANDING OF EUROPEAN FOOD CULTURE

Emerging adults hold the key to the future preservation of culinary patrimonies in the short term; RELISH will integrate how to mediate their connection to culinary traditions (developed in Action 2) into appropriate tools. Part of this connection can be achieved through an innovative and systematic approach to transforming EU recipes using digital and AI-powered technology to offer a visual and verbal food storytelling platform that can mediate social cohesion, reinforce EU cultural heritage transmission not only at home but also abroad through education and public engagement, while addressing sustainable practices. Culinary knowledge is, above all, practiced, and requiring socialization that depends on a strong cultural framework to sustain and preserve culinary heritage.

RELISH will materialise these themes that can be resilient to and adaptive of present and future challenges by creating cultural awareness, mobility, and inclusive cultural values for the next generation.

ACTION 4: THINKING ABOUT EU CULINARY FUTURES

RELISH will design future scenarios for recipes by involving creators and stakeholders. These scenarios will supplement legal and policy analyses on culinary recipes. Recipes and culinary knowledge are the result of collective (often anonymous) actions and therefore compatible with structures of shared knowledge and collaborative work. Simultaneously, culinary practices in the present are increasingly

connected to individual creativity, with singular dishes even presented as instances of artistic creation. A better legal framework is needed to understand the debate about collective and individual identities and output related to culinary culture.

Data from surveys collected in Action 1 and developed in Actions 2 will enrich foresight for the preservation of European recipes and culinary traditions. A final ideation workshop will bring together RELISH members with sector stakeholders in the areas of policy making from local and regional institutions, food related industries (e.g., foodservice, agro-industry, cultural institutions, etc.) and civil society with a special emphasis on grass roots and female led organisations (e.g., consumer associations, arts and culture agents, etc.) to disseminate outputs from the project. The ideation workshop will address how to better make use of recipes and cultural heritage as tools of empowerment and inclusion for future generations and to generate strategies to increase the relevance and resilience of recipes as both stable and dynamic cultural referents.

RELISH as a consortium shares three fundamental approaches that shape the results we aim to deliver. They are:

- 1) **Recipes are key to culinary cultures and, therefore, part of a cultural heritage.** It is not surprising that recipes manifested as food practices are included in UNESCO Intangible Cultural Heritage (ICH) lists. Recipes not only benefit from the legal and socio-economic advantages of the ICH lists but are also associated with Geographical Indications (GIs), which comprise a key sector for the food trade. A better framework to understand debates linking cultural and regional identities to recipes will help to assess their relevancy to GIs. It will also contribute to current discussions within the Transatlantic Trade and Investment Partnership (TTIP) concerning the identity of speciality foods, especially regarding preserving and disseminating this cultural asset.
- 2) **Recipes are increasingly valued and fostered through various media, which can contribute to improving people's quality of life.** Cookbooks occupy a prominent place in the publishing industry and remain a crucial element of the history of print culture, especially in Europe. Social media platforms (such as TikTok and Instagram) and TV shows increasingly make recipes trending and popular. Viewed by millions, new media can enhance participation, with replicated and new recipes uploaded and circulated every day. Yet, we also perceive a worrying gap between theory and practice—fewer people

(especially younger generations) spend time cooking or have the knowledge to do so. Further, the “foodification” of culture (Loda et al. 2020) does not favour ICH or actual knowledge about food traditions or food culture, and is often driven by food and tourism trends.

- 3) **Food issues are urgent and play an integral role in global health and environmental problems.** A deeper understanding of food culture can better equip policymakers, thinkers and educators to confront these challenges while building cultural resilience for the future. For example, addressing obesity or diabetes is better managed through dieting, which is, in turn, better understood in terms of recipes and ingredients. Food production and distribution, food procurement and food deserts could be addressed by teaching citizens how to utilise recipes to confront scarcity or to develop local resources supported by culinary traditions. Archival study of recipes can help reconstruct lost biodiversity in human evolution, as diverse foods were consumed by humans and both preserved and mediated by recipes. Most importantly, a project like RELISH, focusing on the importance of recipes, can address recipes’ absence as a cultural actor for culinary heritage in the public sphere, yet to be undertaken by policy and public institutions.

RELISH demonstrates that recipes can help preserve and disseminate cultural heritage, while providing valuable material to understand the constantly changing nature of cultural practices, always intimately connected to the natural environment from which they emerge. This recognition is especially relevant and urgent for Europe, a geographic area comprised by a plurality of nations and regions with distinct traditions, but all faced with the collective challenge of climate change. Knowledge and understanding of culinary traditions can help us build cultural resilience and better comprehend and confront these changes.

Recipes provide the opportunity to further build on plurality through shared cultural traits that can be mediated by shared food practices. In other words, RELISH will grasp the value of recipes in the context of our European cultural patrimony, and, in doing so, engage in a systematic consideration of what recipes are, what they do and what they can accomplish.

4 Recipes

Culinary recipes are intrinsically connected to food, and, in their diverse manifestations, reproduce the cultural worlds from which they originate. Recipes are commonly held to be a set of written, oral and visual instructions on how to prepare a

dish or meal. However, there is no one single set of conventions for standardising recipes, and cross-culturally and historically genres or forms for recipe transmission differ. Today, recipes come in a myriad of forms that likewise look different than in the past.

RELISH develops the recent work of philosophers of food and their tackling of ethical questions about our dietary choices and the aesthetic value of what we consume. We do so to better understand the complex dimensions philosophers examine around eating and food, as issues—such as hunger, waste, naturalness, authenticity and taxonomies of edibility—cannot be hastily generalised or whose meanings taken for granted (Borghini 2015).

From the philosophical perspective, querying what recipes are serves as a useful analytical lens, as recipes allow questions of both method (what recipes do) and content (how recipes work or communicate), and as such they are indispensable for understanding food practices.

4.1 An ontology of recipes

First, recipes are complex social artefacts that weave together culture, politics, and socio-economic meanings (Borghini and Engisch 2022; Engisch 2022). Recipes are also the bedrock of culinary cuisines, containing knowledge of how to prepare safe, nutritious and tasty dishes that span generations, cultures and vast geographies (Elias 2017). By approaching recipes as an idea rather than as an expected outcome (a dish), philosophers can examine the various negotiations that go into their recognition and acceptance (Borghini et al. 2022). Moreover, recipes should be recognised as social entities that represent cultures, environments and norms (Floyd and Forster 2016). As such, they allow us to further investigate the relationship between food and our society, values and cultures.

From a philosophical perspective, recipes are facets of social ontology (as conventions or institutional acts), an epistemology (as forms of protocol) or even as aesthetics (as works of sensory experiences). As such, recipes can teach us how people create connections, foster value and both produce and reproduce cultures. Recipes are frameworks from which to examine intersections between cooking and other human activities, or are cultural frameworks from which public debate about food and food culture can and should take place (Borghini et al. 2020).

Recipes, as social entities, depend on a process of identification. As argued by philosopher Andrea Borghini (2015), a dish is recognised as a performative utterance. A food's identity can only be grasped by those who are already acquainted with the dish. Furthermore, in each case, recipe instructions are a shorthand, but not

completely comprehensive descriptions, and so identification rests on a process of apprenticeship. Finally, the identity of the recipe depends on the expertise required to execute its authenticity and open-endedness (which we also refer to as “mutability”). These distinctions are important, as they relate to debates regarding Geographical Indications (GIs) and the identity of specialty food as disputed by legal and commercial frameworks such as the Transatlantic Trade and Investment Partnership (TTIP).

Following the work of constructivist philosophers, we see recipes as the outcome of a selection process guided by human fiat (Sims 2009; Germann Molz 2007; Borghini 2015). This approach rejects a realist take where a recipe is defined by its ingredients and, therefore, having an unchanging essence. Instead, recipes are chains of signification, where their values matter depending on who recognises them. That is, the identity of a recipe is tied to its process of identification. Rather than fixed definitions, identification involves both familiarity and flexibility in assessing a dish for qualities, such as naturalness or authenticity. This familiarity and flexibility are likewise culturally informed: the place a recipe has within a culture, or it is recognized as part of its heritage, depends itself on collective processes of identification (and even negotiation) that relies on acquired knowledge and familiarity with a repertoire of meaning dishes. It also requires an understanding of a dish’s possible variations—the result of a recipe, a dish, is a declarative statement, rather than an instance of exact replication (impossible to achieve).

Overall, most important in this process for RELISH is that recipe or dish identification is the result of collective efforts rather than an individual action or quest. As argued by Borghini (2015), the recognition of recipes occurs constitutively. In other words, while recipes, as artefacts, can be recognized in a certain way or re-identified at different places and across different times, a recipe cannot exist without a declaration of its existence, a speech act. However, this declaration cannot take place without having acquired prior knowledge or experience with it, that someone receiving this speech act can recognise it. Declaring recipes into existence implies collective recognition and value, which explains part of the social recognition they are enjoying today.

4.2 Intangible value of recipes

RELISH starts from the understanding that recipes are social artefacts that are intimately relevant to our cultural heritage. Following anthropologist Mary Douglas who stated that food is a field of social action, we suggest that recipes (and their recollection) can be conceptually mapped to identify different stakeholders in constructing a food and cultural landscape (Douglas 1966).

To begin, there is ample evidence that recipes, as they have materialised in history through cookbooks, memoirs, autobiographies and other written forms, encourages us to be keen observers of social interactions connected to the preparation and serving of food (Floyd and Forster 2016; Turmo 2004). Recipes, then, are more than just set of instructions and historically served as different forms of cultural representation and given voice to diverse communities (Zafar 2019).

Likewise, cultural heritage is a field of social action, demonstrating how human concerns and stakeholders are prioritised, negotiated and claimed by various communities over time. UNESCO defines Intangible Cultural Heritage (ICH) as the practices, representations, expressions, knowledge and skills (as well as instruments, objects, artefacts and cultural spaces) that are claimed and held by communities and groups as part of their heritage. As UNESCO states, this cultural heritage,

... transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. (UNESCO 2024, 5)

Increasingly, food and recipes are becoming codified in heritage conventions and other forms of protected geographic and cultural recognitions (Jordana 2000; D'Ambrosi 2022). RELISH argues that an indispensable means by which culture and heritage is embodied in food is through the everyday use of recipes at hand. Today, more than ever, in addition to traditional forms of publications and visual media, recipes circulate virally in social media platforms. At times, recipes transcend the instructional to engage in cultural and political debates about health and lifestyles, as well as traditions and cultural identities (Shapin 2014).

As food and cookery are common elements in all cultures, they deserve a closer examination in the way they define and shape the spheres of our daily experiences. Part of that enquiry consists in articulating questions that can help us elucidate the connections between food and culture through recipes. What we propose in our project is to examine, from the multidisciplinary perspective assembled for the consortium, the relationships between recipes and specific cultural contexts, and develop an understanding about the ownership, preservation, representation and performance of recipes (Borghini, Ravasio, et al. 2023; Borghini and Baldini 2022).

In the design of this broader conceptual web, two key moments are at play: 1) teasing out assumptions, implications, and goals of a recipe concept map and, 2) redesigning the concept map to better accomplish this task (Borghini et al. 2020; 2022; Eibinger et al. 2021). In so doing, the project addresses EU's position on cultural heritage as an important part of the social dimension of democracy and sustainability (Council of

Europe 2005). As stated by the Council of Europe Framework Convention on the Value of Cultural Heritage for Society, “Europe’s cultural heritage is well alive because it is the result of the interaction between people and their environment” (CETS 199 2005). As part of this heritage, RELISH proposes a programme where food culture and its artefacts, in this case recipes, are recognised, examined and valued given the crucial role they can play in strengthening our common cultural heritage.

4.3 Recipes as cultural tools

If recipes are recognised as social artefacts that are embedded in our social interactions and the culture that surrounds us, they can also be identified as cultural tools that aid in the development of a connection between individuals and their environment.

From a socio-cultural perspective, people use symbolic and material tools to mediate their life activities, which play a central role in learning while developing new competencies and literacies (Lipponen 2010). Moreover, they carry embedded knowledge and can mediate participation and interaction between people. Recipes can be seen as forms of discursive and material tools that combine conceptual elements (for example, language and information) and physical ones (for example, ingredients, vessels and appliances) used in the process of cooking or preparing a dish. Recipes also carry embedded knowledge from their links to different historical and social moments, carrying multiple memories of apprenticeship, shared gestures and repetitions (Floyd and Forster 2016). In the context of cultural heritage, cultural tools are used in situational contexts and work through social relations. As a result, they can aid in cultural and knowledge transmission across generations.

RELISH approaches recipes as valuable tools for cultural learning that foster social interaction between people. More importantly, recipes’ capacities can include acting as a cultural bridge, safeguarding the transmission of generational knowledge and experience, and creating and maintaining lasting links between people and their social and national surroundings.

As cultural tools, recipes can work as a form of communication of EU’s culinary heritage. By fostering their use, we can also develop a better understanding of how everyday practices around food, an intrinsic part of our social and cultural dimension, should be supported as essential elements in the building of cultural resilience and the maintaining of our physical and mental wellbeing. But the use of cultural tools also needs to be taught; in the case of recipes, people need to recognise the meaningful information they contain, understand it, utilise it and communicate it to others.



Figure 3: First consortium meeting. Barcelona (Spain), February 2025.

RELISH envisions how to use culinary knowledge and culture built around food practices to explore measures against climate change, enhancing citizens' abilities to withstand biodiversity loss and other environmental challenges. As cultural tools, recipes can create and foster awareness about food culture, mediating not only social and cultural cohesion, but also building cultural resilience and sustainable food practices in line with EU pillars (European Union 2019).

RELISH focuses on the use of recipes from a people-centred perspective, building a baseline for the project from user's point of view. In this case, RELISH primarily engages emerging adults (as it will be developed in the next section) and food professionals to capture their connection to European culinary knowledge and gastronomic traditions. Recipes as cultural tools depend on a process of collective identification that can guarantee their recognition by future generations; with the pressing challenges new generations face, creating the skills and the competence needed to learn to value what culinary recipes can mean socially and culturally for different communities is urgently needed. Recipes' value also needs to take into consideration the increasing need to raise awareness about the environmental impact of food production and consumption.

Using recipes as cultural tools, RELISH proposes an innovative way to culturally and socially shape EU foodways in incremental steps.

4.4 Emerging adults as stakeholders

To cement recipes' recognition and to guarantee their generational transmission as forms of culinary heritage, RELISH turns its attention to **emerging adults** as its main user demographic.

The ages between 18 and 25 years are a distinct period of development, where identity explorations take place and cultural attitudes, beliefs and heritage are worked out (Arnett 2000). This group can be more open to progressive social values when it comes to equality, diversity and inclusion. Studies have indicated how this demographic group is more open to changes in their food consumption to address sustainability issues (de Boer et al. 2016), which supports behavioural interventions, public education campaigns and policies aimed at dietary patterns in young adults (Slotnick et al. 2023; Larson et al. 2019).

Likewise, given how easily their dietary patterns are impacted by their transitional living conditions, this group can benefit from food education and healthy eating promotion strategies (Nelson Laska et al. 2010). As emerging adults entering the labour and housing market, they are also developing and maturing their own cooking practices and food habits while being confronted with the demands of modern life: less time to cook while being exposed to multiple and diverse gastronomic traditions in an increasingly global foodscape. Most urgently, they are about to experience their most transformative years in a period of unprecedented environmental change.

Overall, emerging adults' perceptions and knowledge about food and heritage, as well as their everyday eating and cooking practices, are an emerging research and policy priority (ESACH and Europa Nostra 2023). Gaps in research and studies about young people's perceptions and behaviours frequently yield moral panics (Danesi 2018) regarding loss of attachments to typical dishes or traditional meal rituals, but little substantial or empirical exploration on which food meanings and practices emerging adults instead hold or pursue.

General causes frequently cited for changes in food behaviours among young people include: the necessity of convenience (Gatley et al. 2014); increased access to diverse food options and knowledge, especially in urban European centres; and individualisation of meals (especially during the onset of the Covid-19 pandemic) (Mensah and Tuomainen 2024). However, not enough is known about how to respond to these challenges in ways that prioritise emerging adults' experiences and engagement in the field of culinary knowledge and heritage.

Among this emerging adult demographic, there is also a specific subgroup that provides RELISH with an interesting opportunity to learn about current food practices. Partners in the consortium believe that the value of recipes rests in their mobility, interdisciplinarity, mutability and agency, as recipes represent above all, movement and exchange of people, ingredients and knowledge. University students who participate in EU programmes, including but not limited to ERASMUS, and experience mobility among various locations and cultures represent a priority group to survey in terms of their food habits and culinary perceptions.

RELISH will work with samples of student groups (engaged in tertiary education as well as in culinary training) to gain knowledge about their experience to inform the development of its digital applications. Working with students also represents work with communities closer to our consortium and act as micro-communities from which impact can be radiated to include other groups and communities.

4.5 Recipes and sustainability

There is growing recognition at both national and EU levels that food systems play a critical role in achieving sustainability goals, prompting more attention to dietary guidance and consumer engagement. (Cleghorn and Reynolds 2022). Recent EU sustainability initiatives (such as the EU's Food2030 and Farm to fork strategy) and national strategies (such as the Food-Based Dietary Guidelines in Europe) have begun to incorporate food systems more explicitly, reflecting their environmental, health, and social impacts (European Commission 2020b; 2020a; Moreira-Dantas et al. 2023). These sustainability-focused initiatives and policy actions are typically addressing broader food supply chain sustainability-challenges, shaping sustainable food environments (defined as the physical, economic, and socio-cultural contexts that influence the availability, accessibility, and desirability of sustainable food choices), or impacting the everyday preferences and behaviours of consumers (Burgaz et al. 2024).

Recipes are a fascinating research tool to shed light on much more than dietary and cultural food behaviours and collective patterns. Recently, much attention has been given to developing sustainable diets and recipes, such as the EAT-Lancet Commission on Food, Planet, Health's "The Planetary Health Diet" and "Planetary Health Recipes" (EAT-Lancet Commission 2019; "Planetary Health Recipes," n.d.).

Despite their potential, recipes are rarely discussed beyond their role as representations of dietary choices inside a sustainable diet (Burgaz et al. 2024), yet they can offer deeper insights into how individuals engage with sustainability. Recipes can serve as valuable tools for revealing evolving trends, changing norms,

behavioural shifts and highlighting gaps in food literacy and expose tensions between environmental goals and everyday practices—such as managing food waste or reducing carbon emissions (Pickering and Reynolds 2023; van Erp et al. 2021).

This is because recipes bring to the fore the role of cultural and social categories that reflect the persistent reasons why people cook and eat the foods that they do. Likewise, recipes embody multiple consumer considerations, such as taste, tradition, convenience, and values (not just a single ingredient). Accounting for these factors is essential to develop sustainability metrics and envision future food systems that resonate with people's lived experiences and preferences (Hassan et al. 2025).

For example, mapping recipe changes and differences over time and space (van Erp and Bosma 2024) can also yield analyses that assess carbon footprints, changes in biodiversity, and other interrelated sustainability issues, such as land and water use and food's contributions to waste, that factor in a more holistic framework. Using large-scale recipe databases, nutritional and carbon footprint data can offset issues in monitoring individual household dietary and sustainability practices (Angelsen et al. 2023; van Erp et al. 2021).

In general, recipes are mutable over time and place (Pickering and Reynolds 2023); RELISH contends that recipes' mutability yet consistent recognisability can become tools to foster sustainable transitions that uplift culturally significant foods and culinary heritage, rather than ignoring the essential role that heritage plays in the decisions people centre when choosing what to eat. A sustainable food system cannot be adequately supported in an environmentally sound and yet culturally unsatisfying diet. Recipes can become tools to bring environmental understanding and cultural appreciation in synergy.

As forms of communication, RELISH positions recipes as educational tools to teach new generations how to see and, more importantly, respond, to the links between sustainability, climate change and food consumption (Kluczkowski et al. 2021). Recipes involve interaction and participation, providing agency and foregrounding citizen knowledge in contexts where technical expert nutritional and environmental knowledge can inadvertently limit participation and alienate potential stakeholders in sustainability programmes and initiatives (Oakden et al. 2021; Reynolds 2022). In this way, recipes can serve as a core pathway for citizen engagement and action within sustainable food systems.

5 Work Packages

The tasks designed for RELISH in the different WPs are mapped with the structure of a recipe itself: the WPs are represented as the steps of collecting ingredients, prepping, cooking and tasting, before finalising cooking to plate and serve the dish. Each “recipe process” step represents key points of the project.



Figure 4: RELISH WP structure.

Among the WPs and their various tasks, RELISH focuses on data collection, establishing a theoretical framework for an ontology of recipes and culinary heritage, and a methodology and analytical framework to work with recipes. We also provide an analysis of the role of soft law instruments of ICH and food culture, while developing a digital platform to leverage the use of technology in working with food culture and heritage, the implementation of **Food Memories** workshops, and finally, an exercise in projections in for the future of recipes as cultural heritage.

The tasks designed for the project are based on three objectives:

- 1) Data collection and analysis framework for current food culture perception of traditional recipes and food;

- 2) Development of visual storytelling with recipes as key to transform EU food culture transmission and promotion; and
- 3) Demonstrating uses for recipes as cultural heritage using creative social innovation practices.

As outlined by the EU Horizon Europe programme, cultural heritage plays an important part of the social dimension of democracy and sustainability and should be considered relevant to all levels of action to respond to current challenges and to provide innovative responses. RELISH engages in diagnostic work to produce frameworks for analysis about current perception and use of European traditional dishes and recipes to inform the development of its digital and cultural tools. These frameworks will be designed to be replicable and used outside and beyond the project.

To establish what is currently understood and lost in terms of European traditional recipes and their value when it comes to cultural heritage and the transmission of generational knowledge, the consortium has identified a key demographic from which to obtain this data: emerging adults. They represent a group useful in predicting behaviour regarding food preparation and consumption and their experience reflects three key elements used by the consortium to approach its understanding of the development and future of recipes: mobility, interdisciplinarity and agency.

RELISH carries out a series of sample diagnostic exercises, including a survey of current food culture in social media and entertainment, cultural institutions with programming on food culture, current models of sustainability practices in the food industry, and whether programmatic interventions exist or are in place to determine loss of food traditions.

Diagnoses of cultural culinary landscape are urgent, as they are essential to understand the real value of traditional culinary culture in developed Western societies like in the EU, where preparing traditional dishes or cooking daily no longer fits the everyday experience of its regular citizens and therefore no longer define their cultural identities, even while being exposed through social media to myriad food trends and gastronomic culture. RELISH demonstrates the importance of addressing this social dynamic, especially among emerging adults, to safeguard the continuation of Europe's culinary heritage and build cultural resilience.

The EU programme also fosters action involving behavioural changes, based largely around impacts on lifestyle, culture and perceptions that can drive socio-ecological innovation. RELISH engages with these actions by testing different forms of storytelling, from verbal to visual, in food memory workshops, as well as designing

and developing an only digital platform to communicate EU food culture through recipes.

Via data-driven visual storytelling, the platform seeks to leverage user-centred methods to elicit, design, develop and iterate over an innovative form of communication that aims to engage with a young adult audience to create awareness about the making of a culinary tradition and culture. Moreover, visualising traditional recipes via our platform can raise awareness about historical development, points of contact between European cultures and locations, and trace the evolution of ingredients and new tastes—all of which can thus reveal a web of information to guide future action for policymakers and cultural institutions dedicated to the promotion of ICH connected to EU food traditions.

RELISH will also support AI-powered recipe companions that, for instance, promote sustainable practices for use in education and hospitality sectors. In sum, these tools are designed to provide a framework from which to promote awareness and educate young people and future food professionals about EU food culture and traditions.

Finally, the potential of cultural heritage as a driver for innovation derives from protecting, restoring and promoting culture that fosters an inclusive community. RELISH engages in cultural shifts in the legacy and transmission of recipes through the testing of its digital and cultural tools. We also use collected data to forecast how traditions and knowledge can pass generationally and how they adapt as the result of a complex processes of confrontation and negotiation between actors in food cultures. RELISH assumes that such processes always include new practices and elements, while retaining previous ones, reflecting the complex unfolding of material and immaterial societal environments. This understanding allows us to consider possible future food scenarios for EU citizens, as well as the necessary work needed to prepare for them.

In addition to the WPs dedicated to the project management and DEC, these objectives are tackled in groups and tasks in specific and general terms comprising the three pillars of innovation that guide RELISH's approach to understanding the cultural and digital innovations possible within culinary forms: recipes, cultural heritage and youth.

5.1 INGREDIENTS: Data collection

This WP is tasked with producing a first diagnosis of ongoing cultural changes in European food culture by studying local customs. Our partners have determined that an optimal way to test this foodscape is to primarily focus on university students,

especially those who have experience living abroad and are on their path to develop and strengthen their own cooking practices.

The main tasks of this WP are to 1) design a set of surveys on the present food practices of European youth, which will help outline future European food and recipe scenarios; 2) to collect data on digitised traditional EU recipes and the sustainability impact of recipes to support the development of a digital tool for recipe visualisation model; and 3) to build models of mediation between culinary tradition and modern living through historical recipes, connection between food traditions, culture, storytelling and education.

The purpose of the survey is to understand current food practices of the target group and their relationship or connection to culinary recipes and traditional dishes. The survey, designed to be shared by all members of the consortium and information collected from their institutional environments (as applicable), will produce information about the present-day culinary map of Europe shaped by the experience of its more mobile younger generation, who are often exposed to different culinary cultures and practices. Finally, this information will help build models to mediate transmission and sharing of culinary tradition and knowledge for your younger generations and other EU communities targeting social integration.

Another task assigned to the WP is the use of digitised traditional EU recipes to explore how information can be extracted to visualise recipes' different components. This task can aid researchers and students in the study of food culture and inform the development of digital tools created for RELISH.

Another activity tested in this WP are Food Memories sessions to be carried out in different locations with partner institutions. These sessions will bring together storytelling activities, group cooking exercises and emerging adults. Conceived as a series of workshops, Food Memories will employ life-writing, journaling and storytelling as learned-techniques and skills to explore the sense of belonging embedded in the interplay between individual recollection of tasting food and collective references to specific cuisines as part of one's cultural heritage, it combines writing, cooking and sharing as part of a cultural tool developed for RELISH.

For INGREDIENTS, it is essential to understand the value of traditional culinary culture in developed Western societies (such as the EU), where preparing traditional dishes and everyday cooking often no longer fits into the everyday experience of its regular citizens and therefore no longer defines their cultural identities. RELISH thus emphasises the importance of addressing this reality for emerging adults and those starting in the culinary profession, given the urgency to begin implementing social transformation in food practice and climate action.

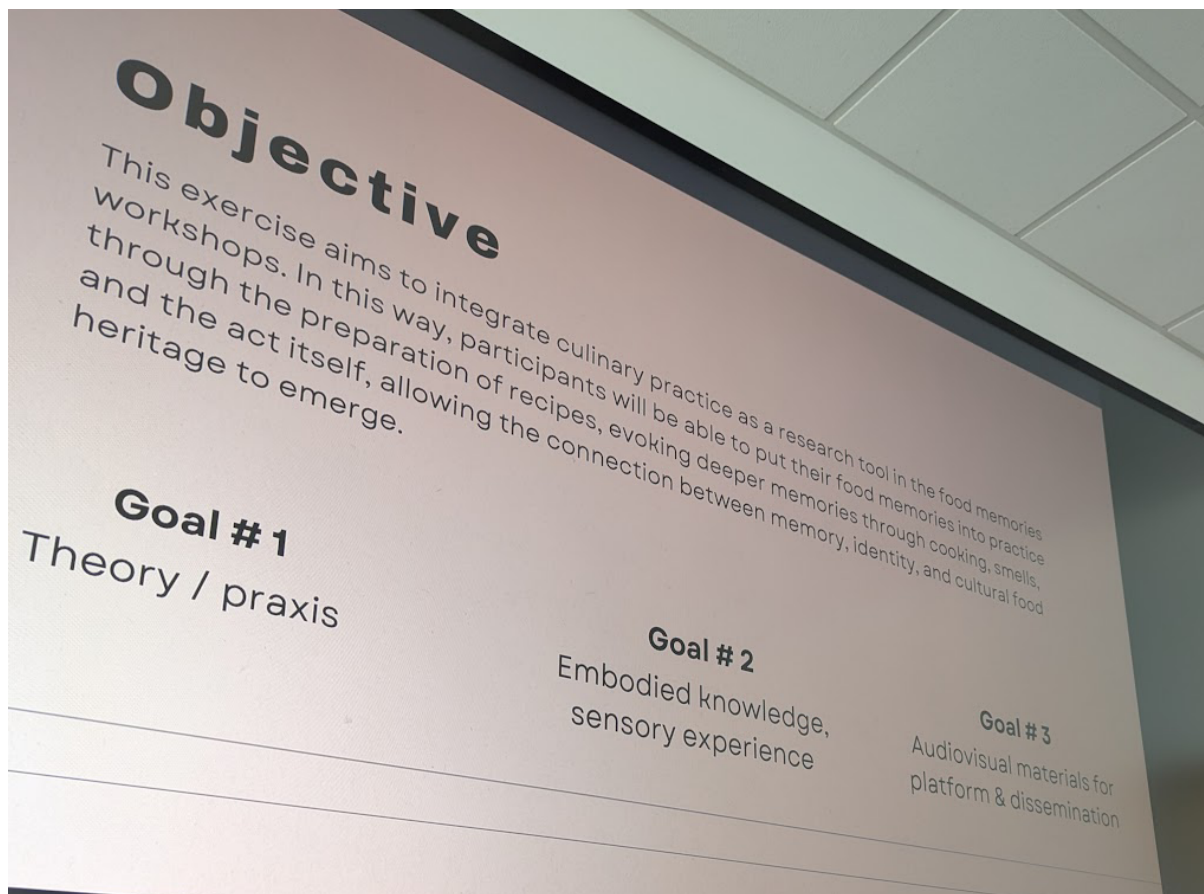


Figure 5: Food Memories planning session. Galway (Ireland), May 2025.

This WP combines design and theoretical sessions with consortium partners, coordinating surveys, helping in data collection of recipes, testing food culture and storytelling workshops to produce three main outcomes:

- 1) Survey design for young adults about their food culture and practices;
- 2) Understanding young people's food practices and what they lack in terms of culinary knowledge and/or practice; and
- 3) An ambitious quantitative survey in all countries of the members of the consortium (n=500/per country [FR, UK, IT, SP, PT, DK]) with control for regional variability and measurement of socio-demographic variables (e.g. age, education, income, family variables) and food habits and diet psychometric scales.
- 4) The tasks of this WP can be seen as diagnostic exercises undertaken by partners to inform the development of the tools for RELISH, such as what kind of losses in culinary cultural transmission are happening at present; a survey

of climate and sustainability actions in place in the food industry or food trends in EU; the social media and entertainment landscape that exists around food culture focused on the EU; an investigation into existing cultural coalitions around food practice in the EU and potential connections with the EU cultural heritage collaborative space; and, finally, a clearer understanding of existing programmatic interventions in terms of food education in EU. This information (along with the deliverables produced in the process) should be not only useful to RELISH for its internal application, but also to produce an aligned vision for the promotion of an EU gastronomic culture.

Finally, as the EC calls, these activities are geared to promote the European way of life by providing understanding and context for its food traditions and practices today.

5.2 PREPPING: Wrangling and curating data

The objective of this WP is to establish the theoretical and practical framework from which RELISH operates when dealing with existing research and information related to culinary cultural heritage. It is also tasked to support the User-Centred Design (UCD) approach of the technical partners of the consortium from a cultural heritage perspective and identify the key questions and cultural assumptions that are relevant for RELISH as a project. More importantly, PREPPING is tasked with assisting partners in the consortium to develop key analytical terms in culinary cultural activities organised on behalf of RELISH and identify and engage in conversation with institutional stakeholders to promote culinary cultural heritage in local, national and EU levels.

The work involved in these tasks will also result in:

- 1) Recognising the role that recipes have played thus far in establishing EU's cultural heritage;
- 2) Defining the role that recipes should play in advancing heritage engagement with younger generations;
- 3) Fine-tuning methods for using recipes to promote heritage goals while balancing preserving traditional recipes and introducing new recipes that comply with emergent societal needs reflective of the changing demographics of the EU; and
- 4) Assessing the legal and political actions that these institutions can take to preserve and promote recipes for its future generations, as examined by Action 4. In the RELISH programme, Action 2 demonstrates that the creation of a

strong food culture cannot be the responsibility of few actors but rather an organised and collectively strategized plan of action. As the EU Commission rightly states, cultural heritage has enormous potential to contribute in the improving of the quality of life for people and creating a strong connection between food culture and cultural heritage can help strengthen impact culture can have on people's everyday lives.

The information and data produced for RELISH will require a clear critical framework from which to operationalise ideas about food culture and traditional recipes. The framework will produce explicit criteria that can bridge conceptual understanding with the design and development aspects of digital and AI-powered technology to reinforce EU cultural transmission. Key questions will be closely considered from an open-ended, ontological methodology to distil clear directions for technical design objectives.

For example, clarifying directions requires producing and drawing on specific criteria relevant to RELISH and cultural heritage: what makes a recipe typical; how can recipes be adapted, such as to foster environmental sustainability or social integration; what should be understood or taught about historical culinary accuracy; what kind of storytelling potential can be found in recipes; and, what are the attributes or qualities attractive to an emerging adult demographic, future food professionals and general audiences that can work in the short term to influence social and cultural behaviour?

Capturing these answers will ensure a productive use of data collected. This process will support the conceptualisation, design and user-centred development of digital tools produced for the project and its multiple iterations in their testing stages.

Defining parameters is crucial to avoid the risk of recipe uniformity, downplaying differences in histories, narratives and political goals of the members of this young demographic and ensure RELISH directions reflect emerging adults' technical and aesthetic preferences when it comes to digital tools (e.g., fixed picture formats, pre-set length of texts, conventional languages, etc.).

PREPPING will share a document on their critical culinary ICH framework among members of the consortium. Related to how recipes can be used with digital tools, another WP task how data organisation can explicate assumptions regarding culinary recipes, such as their typicality or existing practices replacing ingredients to address sustainability issues. Recipes can be understood through different specifications, such as essential ingredients, required kitchen tools, rules about the consumption of their result (e.g. place, furniture, or occasion), methods of production, the people involved, etc. In the same manner, environmental sustainability is a complex expression—it comprises multiple dimensions that can have specific and



Figure 6: RELISH engaging in Catalan culinary heritage (*calçotada*). Barcelona (Spain), February 2025.

unexamined connections to how recipes are understood or presented by chefs, public users, home cooks, and others. The recognition and definition of criteria for these sets of data will be important in developing RELISH's digital platform.

This WP's tasks involve an innovative and multi-disciplinary approach between philosophers, social scientists, and hospitality sector specialists conversing with computer scientists and engineers of our consortium. They will guide the participation of all partners in the iterative process of designing, developing and testing the technical tools for the project, as well as producing key reports and criteria and studies that can inform the iterative design efforts around the use-cases established for the project.

PREPPING's work will support the objectives and outcomes of RELISH in crucial ways: they will establish the theoretical framework from which the consortium operates with existing research and information connected with culinary cultural heritage; they will identify and examine key notions and assumptions in promoting ICH in connection to EU food culture that can inform the design, development and

testing of the RELISH web platform; and they will assist partners in developing the key analytical terms for cultural activities connected to food culture and practices that can later be examined for future research.

Finally, the outcomes of this work will allow RELISH to identify and propose ways to engage the institutional stakeholders involved in promoting culinary heritage in the EU.

5.3 COOKING: Recipes and applications

The main task for this WP is to create and develop new interdisciplinary methodological approaches and analytical frameworks to explore recipes through the concepts of mobility and agency. COOKING's historical and cultural approach to recipes will inform the development of and contribute to populating the RELISH digital platform.



Figure 7: COOKING WP Lead presenting the recipe methodological workshops at the first consortium meeting. Barcelona (Spain), February 2025.

WP partners and the researchers they gather who work on recipes recognise them as powerful sites of learning that can unlock their significance historically and culturally, in the context of Europe and elsewhere.

The outcome of their work is to unlock the potential of recipes, transforming them into accessible and engaging learning tools for academics, communities, institutions, and individuals. They will do so by developing flexible and adaptable methodologies that combine theoretical and perspectives from food history and other humanities disciplines.

Their analysis will result in an academic volume that will serve as a reference in the study of recipes as cultural tools. This project will also inform the groundwork undertaken by technical partners as they develop a recipe visualisation tool to trace or illustrate the influence of mobility, reception and/or exchange in shaping European culinary heritage. The objective of this work to learn and to teach how culinary heritage, identify formation and recipe-construction are fluid, dynamic and integrative processes that should be acknowledged as the EU celebrates its residents' diversity.

The main objectives of this WP are to:

- 1) Position Europe's gastronomic and recipe heritage as accessible, powerful and flexible tools in mediating and facilitating current and future challenges of social, economic, cultural and environmental change;
- 2) Create a methodological and analytical framework to explore recipes based on concepts of mobility, interdisciplinarity and agency; and
- 3) Participate in the development of the digital platform and its recipe visualisation tool, helping understand the mobility, interdisciplinary and agency underpinning the creation and evolution of recipes, as well as exploring issues connected to the social and environmental sustainability of recipes.

By leading a methodology workshop on recipes with researchers based in Europe and abroad, partners for RELISH will engage in discussing and analysing recipes, their formation, and transmission in various formats, such as oral, manuscript, printed and online.

Their work will highlight how movement of people, foods, tastes and ideas between different groups of people contribute to the creation of culinary heritage, such as those in the Mediterranean basin. Partners will also investigate data related to Northern Europe and explore the impact of internal, European and trans-Atlantic movement of recipes to assess the effects of cross-cultural interactions that result in networks of connections and influence. Part of this cultural interaction will also be

found in Medieval and Early Modern European cuisines intersecting with Arabic recipes.

The work produced in this WP, in conjunction with contributions from other invited researchers, will be collected in an edited volume for publication to be used by researchers, academics and students as a reference work in the field of food history and food culture studies.

5.4 TASTING: Piloting and trials

This WP gathers selected activities designed and tested by partners, such as Food Memories and the theoretical framework developed for the consortium that connects culinary cultural heritage and ICH.

In addition to this collection, TASTING's main task is to assess legal framework impacts on recipe creation. Through workshops and interviews with chefs and other culinary industry actors (recipe writers, food producers and policymakers), this WP explores Intellectual Property (IP), sustainability issues and soft-law competitiveness in the food industry sector. TASTING also makes use of generative AI chatbots as part of workshops to extract insights from stakeholders on future requirements and improvements for digital culinary tools.

These proposed activities will collect data and legal research to prepare a document with specifications, requirements and design ideas to improve digital and AI-powered tools oriented toward culinary heritage and food industry professionals.

A specific output of the workshops with food professionals will involve a series of recorded interviews (in podcast or video format) reflecting on the usefulness of novel digital tools. These recordings will further explore the role of legal and non-legal protection of recipes and adjacent culinary creations. These resources will further expand interest and applicability of the RELISH project and spark wider interest and investment into the creativity and legal protections of culinary heritage and food culture. These interviews will provide valuable insights into the potential role of IP rights in promoting sustainability and identify current challenges and opportunities in implementing sustainable recipe creation practices.

TASTING will produce much-needed desk research to map out whether many recipes and food presentations have been copyrighted or protected via other intellectual property rights, including trademarks, Traditional Specialty Guaranteed (TSG) and trade secrets; and to highlight high profile court disputes focusing on intellectual property protection of recipes and food presentations. This legal review will cover current intellectual property rights of recipes and food and sustainability outcomes.



Figure 8: WP Lead presentation of legal research opportunities in IP and soft-law protections applicable to food heritage and recipes. Barcelona (Spain), February 2025.

This WP will also examine social norms and social media-driven food content to assess whether and to what extent legal protection of recipes can co-exist with the culture of hospitality and sharing and borrowing approach assumed to underpin the culinary industry. They will further pinpoint the perspectives of chefs and other actors in the culinary industry on their perceptions and use of legal protection for their culinary creations, especially considering increasingly proliferating social media-driven food content, such as food blogging and food-laden social media accounts (sometimes referred to as Foodstagram).

Finally, RELISH will identify innovative approaches for using IP rights to promote sustainability in the culinary sector and identify best practices and potential pitfalls. For example, analysing successful initiatives, such as food certification schemes, Protected Designation of Origin (PDO) labels, and Community-Supported Agriculture (CSA) programs can provide valuable insights into how IP rights can be leveraged to support sustainable food systems transformation.

Food Memories is also piloted under the purview of this WP, with the collaboration of partners across the consortium in three distinct scenarios. Designed as writing workshops dedicated to storytelling, and cooking exercises included depending on the availability of facilities, they will serve as case studies for the RELISH platform. Food memories applications will be stress-tested with a specific group of users. In addition to the possibility of engaging the project's target audience (emerging adults), each chosen Food Memories pilot location will carry specific characteristics to be considered in the testing the RELISH platform. Additionally, Food Memories workshops will be offered in a manual form as an example of cultural activity that can be adopted or put into practice by other researchers or practitioners of food culture.

If, as stated in Action 1, working with an emerging adult audience is of utmost importance, as this demographic is key to enabling the near-future preservation of culinary patrimonies, there is also a need to understand how to mediate their connection to culinary traditions. Food Memories workshops are designed to work with this demographic group to test some of the consortium's assumptions regarding how emerging adults relate to food culture and what can be achieved via digital and AI-powered technology by offering a visual and verbal food storytelling platform. RELISH is interested in understanding how these tools can mediate social cohesion, reinforce EU cultural heritage transmission not only at home but also abroad through education and public engagement and address sustainable practices. Culinary knowledge is, above all, knowledge based on practice that requires socialization.

5.5 SIMMERING and COOLING DOWN: Development, testing and production

This WP is dedicated to the design and development of the RELISH web platform—a scalable repository of data, dashboards, and algorithms that will facilitate access to information produced and gathered throughout the project. The WP will demonstrate and iterate the capabilities and features of the platform via disparate use-cases developed with consortium partners.

Our design approach will leverage user-centred methods to elicit, design and develop these seven proof-of-concept use-cases to illustrate a wide range of application areas supported by the platform. These range from a web application around recipe information, an AI companion for cooking, and supporting participatory design sessions with relevant stakeholders. Each use-case describes design, development, user study efforts that take place over 12 months and aim towards Technology Readiness Levels (TRLs) 3-5.



Figure 9: User-Centred Design, presented at the first RELISH consortium meeting, Barcelona (Spain), February 2025.

The first use-case is generated from Food Memories, where workshops will compile a series of narratives on connections between recipes, memory, ICH and identity in young mobile populations. This data will not only leverage the RELISH platform as a repository and curated archive for these narratives, but present this information together with geographical nodes, storytelling elements, historical and socio-economic contexts and experiences and perceptions of recipe products and processes that encourage comparative assessments. The narratives can also be the source of virtual experiences to which alternate users can add, complement, and create new iterations of recipes based on shared knowledge and memories.

The second use-case will be dedicated to recipe information, sustainability, and impact; using, among others, the survey data collected for RELISH. This use-case will produce an interactive map for web and mobile devices based on food sustainability impact and survey data describing the food practices of young people and wider population in Europe (e.g., type of food, social context) and the expected environmental impact of these food practices (e.g., greenhouse gas emissions, water footprint). This map will also link to an online version of the survey. This ensures that our dataset continues to grow during and after the project granting period, as more answers are generated using our visualisations in educational and other settings.

The third use-case will focus on food traditions and culinary ancestry to demonstrate how mobility, interdisciplinary approaches, and agency can be employed to explore the creation and evolution of recipes and related elements—specifically, the impact of mobility on shaping European gastronomic heritage. The WP will do so via a visualisation tool enabling users to delve into and appreciate the culinary and cultural heritage of the EU on the platform. The use-case will start with a single recipe and unravel the intricate web of historical, cultural, social, technological, economic, scientific, religious and environmental changes and exchanges that, over time and space, brought ingredients, preparations, tastes and ideas about nutrition together into the recipe form.

The fourth use-case sets the groundwork for a proof-of-concept AI cooking companion. This companion will not only produce recipes in response to user prompts but also give the user the opportunity to restrict certain outputs to support, for instance, ingredient substitution. To accomplish this, we will iterate over the best out-of-the-box models that can be integrated onto the RELISH platform.

The fifth use-case will produce two outputs: First, a web interface to the RELISH repository that will aid in capturing data during workshops with university students; and second, a rich interactive visualisation of this information designed to help understand the reality of emerging adults in relation to food. Together with other datasets on our platform, this use-case represents the relationship between the past and the present, allowing users to contemplate how traditional recipes and culinary heritage can be of help for the future.

The sixth use-case involves a spatial computing experience that will leverage the RELISH platform data and our AI cooking companion to build a spatial computing (i.e., augmented reality) application. We will target commercial smartglasses (e.g., the Apple Vision Pro) and develop a proof-of-concept prototype that detects and responds to everyday cooking actions and events. Users will not only be guided towards a specific goal (e.g., completing a recipe), but receive relevant information on how they can create a new iteration of the recipe, including with nutritional or historical information related to a recipe item in their hands.

The seventh use-case will explore how the RELISH platform can be used to facilitate analysing legal and policy issues related to the use of AI for culinary creation purposes. We will focus on both input—e.g., does feeding machines with existing data violate IP rights of others?—and output perspectives—e.g., would an AI-created recipe be protected by IP, and if so, who would be the IP owner?

These use-cases will lead to iterations over the RELISH web platform, our data repository, and dashboards that facilitate access to the information produced and

gathered throughout the project. The goal for the RELISH platform is to mobilise a community around it to enable its growth after the project's completion.

5.6 PLATING: Future scenarios for EU recipes

This WP is designed to serve a dual purpose. First, PLATING serves as the project's repository—it collects data and information from the different WPs and stages of the project in preparation for the final overview of RELISH and its outcomes, for further dissemination and identification of its Key Exploitable Results (KER) as agreed by the members of the consortium. Second, it is tasked to recognise the potential of recipes and develop creative and innovative models in culinary cultural heritage for the future. It is asked to consider recipes as cultural artefacts within a complex web that connects historical knowledge, environmental sustainability, everyday practices, and cultural institutions.

PLATING will 1) produce in-depth interviews with experts in the consortium and desktop research to identify key drivers; 2) identify stakeholders through a combination of surveys, interviews, focus groups and action-based research; and 3) design and develop an ideation workshop activating the knowledge created by RELISH. These initiatives will address how to better preserve recipes as cultural heritage and utilise their transformation and change with confidence.

The objectives of the WP are to:

- 1) Project Future Scenarios for Recipes as cultural heritage tools by mapping key drivers and address a lack of aligned vision and approach on how to promote EU traditional culture and its Green Deal strategy;
- 2) Identify narratives of change through confidence for recipes as cultural heritage using a UX approach; and
- 3) Create recommendations for policymakers, education and cultural institutions on how to use EU recipes as part of its cultural heritage to empower and promote inclusion in future generations through Speculative Design made accessible and disseminated through RELISH digital platform.

The projection of future scenarios that include recipes as cultural heritage and their role in societal transition envisioned by EU's Strategy for Climate Action by 2050 will be set with sets of nine drivers (3 trends + 3 weak signals + 3 wildcards) within 5 social subsystems (Economy, Environment, Politics, Culture and Society), while being technologically transversal.

Using a methodology designed by one of our partners, this task will involve applying qualitative tools and FLUX-3D, a user experience tool for evaluating social innovation prototypes.

PLATING there will organise an ideation workshop for the consortium at the end of the project, bringing together RELISH partners with stakeholders in the areas of policy from local and regional institutions, food-related industries (e.g., foodservice, agro-industry, cultural institutions, etc.) and civil society, with a special emphasis on grassroots and women-led organisations (e.g., consumer associations, arts and culture agents, etc.) to disseminate outputs from the project.

The ideation workshop will address how to make better use of recipes as cultural heritage to empower and ensure inclusivity for future generations. The workshop will also generate strategies to increase recipes' relevance and resilience as stable cultural referents.

The final RELISH Innovation Report will contain the outcome of the Ideation Workshop. It will involve retro-feeding the narratives and a 360° strategy to target policymakers, education and cultural institutions on how to use EU recipes as part of its cultural heritage. Ultimately, the report aims to empower and to promote inclusion for future generations through Speculative Design made accessible and disseminated through RELISH digital platform.

5.7 SERVING: Dissemination, exploitation and communication (DEC)

This WP is designed to boost the visibility of the project's approach, activities, and results throughout the life of the project by designing and employing appropriate communication tools to reach and engage different target audiences. It is also directed to ensure the future uptake and use of the project's results during and after the project. It will do so through planning and implementing targeted dissemination actions aimed at end-users and key stakeholders to enhance acceptance of project results.

One of its specific aims is to facilitate efficient exploitation of the results by actively handling IP issues, disseminating guidelines, recommendations, and specific information produced by RELISH and aimed at EU policymakers, businesses, associations and other stakeholders as well as the general EU public. In coordination with the WP dedicated to the project coordination of RELISH, activities that fall under DEC are focused on managing and identifying the project KERs during its implementation and the four-year period after its completion.

KER Development Workshops are designed for the consortium to agree on a roadmap for exploiting project results beyond the end of the project. This will include cooperation models, funding methods for further deployment, main target markets, adapting project research results for broader application, and identifying further opportunities, challenges and barriers relevant to the exploitation strategies.

Information gathered from these three workshops will be collated into a roadmap towards exploitation report. The RELISH project coordinator, UDUR, will prepare the report and be responsible for related obligations within the report after the project end.

In disseminating and communicating project activities, SERVING is responsible for collating and reporting on project partner activities that enhance public knowledge and trust in the RELISH project. Building awareness and confidence will support transitions in food behaviours, practices and uptake of the significant role of recipes in cultural heritage and future generations' social outlook.

To invest potential stakeholders and target audiences in the RELISH project, a range of platforms and media are used, including social media, podcasts, blog posts, press releases, and interviews. SERVING will also refine and develop key messaging strategies for its early adopters, target audience, and beneficiaries, identified as 1) policymakers; 2) emerging adults; 3) culinary guardians; 4) mediators; and 5) citizens and society.

Finally, SERVING is responsible for tracking and reporting RELISH's tangible and intellectual impacts on present and future Horizon Europe and stakeholder institutions and networks. It will do so through a mix of qualitative and quantitative indicators and build sustainable networks to support and enhance the project's exploitability after the project's granting period has concluded.

6 Final Considerations: The future of recipes

Interest in food and recipes have increased on a global scale in the past two decades and we are witnessing their growing importance as food is connected to social and political initiatives, in addition to its large market share. These interests are also intimately connected to the future as food production plays a vital role in the sustainability of our environment.

A significant part of Europe's abundant and priceless cultural heritage manifests around the world through its rich food traditions. Yet, as Europe's own food consumption becomes increasingly global, it is vital to understand how this change

in food practice leads to a loss of sense of place and identity. While the connection that exists between food and cultural identity is generally acknowledged, there is no sustained awareness about how this link can and should be fostered and sustained.

As part of the EU's Intangible Cultural Heritage (ICH), food culture and its artefacts need to be recognised and valued, given their crucial roles in strengthening our common cultural heritage. This recognition is more important than ever as the EU is experiencing rapid societal and cultural transformations while facing the great challenge of our time: climate change. With the deterioration of the environment pointing to an eventual loss of a way of life, the lack of cultural transmission that comes from a naturally occurring generational divide and the soft power of social media acting as a homogenising agent for food habits, it is of utmost urgency to understand what is being culturally lost in this process. At the same time, this situation should also be seen as an opportunity to build an inclusive EU society bolstered by common ties through increasingly shared experiences of fragmentation and mobile connections.

When examining previous scholarship on food culture, there are no clear answers to determine what specific cultural or material contexts recipes depend on to assure their effectiveness as vehicles of cultural heritage. What kind of stakeholders should oversee the valorisation of food culture and its connection to ICH? What is needed to balance culinary cultural heritage preservation and new social issues, such as sustainability, gender equality, diversity and inclusivity?

Currently, the so-called foodification of culture has created more interest in touristic food trends rather than food culture. Traditional dishes promoted through social media platforms result in culturally divisive discussions that promote complicated concepts like authenticity (see for example the comment sections of sites like TasteAtlas, etc.).

The cultural identification with food, however, has not passed unnoticed by food-connected industries and companies, which market information and prediction on food trends and leverage AI to link food practices with new market opportunities (e.g., Tastewise.ai).

In other EU funded programmes such as Farm2Fork or the recognition of the Mediterranean Diet, there is no clear approach to producing knowledge about the role culture plays or can play in creating support or supporting local culinary cultural heritage. Other locally focused initiatives like FoodCult or the New Nordic Cuisine do not address the need for more generally translatable cultural frameworks to understand and enhance food culture.

RELISH defines an approach that focuses broadly on cultural heritage and creates methods that can be effective across the cultural, geographic, political and socio-economic diversity. We reveal the need for a systematic approach to food innovation that starts with culture, creating value in linking recipes with local and seasonal produce, and instilling and fostering habits to achieve a more sustainable food economy.

The project will share recommendations for implementing new strategies for cultural institutions tending to and teaching food cultures and develop digital tools to communicate food culture through recipes. Designed to incorporate a people-centred approach, the tools developed by RELISH consider how users can meaningfully connect to concepts like cultural heritage or identity and have agency to realise the potential of culinary recipes and gastronomic legacy to foment these connections, through instruction, information and socialisation.

Ultimately, RELISH positions recipes not merely as historical artefacts or cultural curiosities, but as active tools for shaping the future of food and culinary heritage. By treating recipes as vehicles for sustainability, inclusivity and cultural transmission, the project underscores their capacity to bridge past and present, while generating innovative responses to contemporary challenges such as climate change, social fragmentation, and the homogenising influence of global food trends. Through this approach, RELISH offers a framework that both safeguards Europe's rich culinary traditions and reimagines them as dynamic instruments of cultural resilience and transformation, ensuring that food heritage continues to nourish identity, community and sustainability in the generations to come.

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