DietWise
SYSTEMIC CHANGES | EMPOWERED CITIZENS

Deliverable D4.1.

Co-creation workshops

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https://www.dietwise.eu

Funded by the European Union

This project is funded by the European Union's *Horizon Europe program* under grant agreement No. 101181692

This work is dedicated to the memory of Justina Baršytė, author of the DietWise project idea, whose vision and commitment were invaluable to this project.

Project information

Program:	Horizon Europe
Topic:	HORIZON-CL6-2024-FARM2FORK-01-5
Type of action:	HORIZON-RIA HORIZON Research and Innovation Actions
Grant Agreement #:	101181692
Project title:	Systemic Solutions to Enhance Healthy and Sustainable Food Provision and Cooking at Home
Project Name:	DietWise
Project Start Date:	2024-11-01
Project End Date:	2027-10-31

Document information

Document name:	Co-creation workshops
Related Work Package:	WP 4
Related Task:	Task 4.1 "Co-creation of a framework addressing the needs of stakeholder groups – influencers, citizens, and vulnerable people."
Related Deliverables:	D4.3
Authors:	Antonio De Carluccio, Cecilia D'Acunto (SAFE)
Reviewer(s):	Ebo Botchway (KUL), Caroline Coeckelbergh (VIGL)
Submission date:	2026-02-23
Dissemination level:	Public

Document history

Version	Date	Changes	Responsible partner
v0.1	2026-02-09	First version	SAFE
v0.2	2026-02-16	First version reviewed	KUL, VIGL
V1.0	2026-02-23	Final version	SAFE

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Abbreviations

Abbreviation	Full Form
EU	European Union
KUL	Katholieke Universiteit Leuven
PROL	Astiki Mi Kerdoskopiki Etaireia Proliptikis Perivallontikis Kai Ergasiakis Iatrikis
RCA	Responsible Cooking Alliance
VLAM	Vlaams Centrum voor Agro-& Visserijmarketing
WP#	WP followed by a single digit number refers to a specific Work Package

Contents

1. Executive summary

This report presents the qualitative findings from co-creation workshops with citizens, vulnerable citizens, and influencers in Belgium, Greece and Lithuania. The workshops explored everyday cooking realities, tested early expectations for RecipeWatch and the Responsible Cooking Alliance, and translated participant experience into practical implications for tool design, messaging and piloting.

Across all groups, two conditions for adoption stand out. First, the tools must reduce effort in the moment of cooking. Participants repeatedly asked for speed, clarity, and features that work with real routines, including leftover based cooking, recipe scaling, and concise guidance rather than long explanations. Second, credibility must be protected. Influencers and platforms stressed that AI suggestions must be both scientifically sound and practically workable, because failed substitutions and unrealistic outputs create direct reputational risk.

Language tone emerged as a functional requirement. Citizens and influencers rejected paternalistic or restrictive framing and warned against language that feels moralising. User facing guidance should feel suggestive and respectful and should avoid diet-centred messaging. Personalisation was consistently valued, but with important country-specific nuances. In Belgium, vulnerable citizens treated religious food rules as non-negotiable and expected automatic filtering so forbidden ingredients are never proposed, alongside budget friendly options and culturally familiar recipes. In Greece, feasibility was framed through cost, time and household practicality, including child friendly options to avoid cooking separate meals and a preference for alternatives that reduce waste and save money. In Lithuania, many participants prioritised ingredient quality and credible health rationales, with older adults showing strong interest in expert style explanations while demonstrating less clarity and understanding on sustainability framing.

Influencer workshops add clear implications for the Responsible Cooking Alliance. Belgian stakeholders favoured a back-office model integrated into existing editorial workflows, supported by validation evidence and transparent roles. Lithuanian influencers were concerned that a points-based scoring system could oversimplify their content and suggested creator-oriented utilities, such as nutrition calculation and shopping list functions. Greek influencers emphasised ease of use, careful handling of ingredient substitutions, and meaningful promotion incentives for collaboration.

Key limitations of these workshops should be understood as expected constraints of an early formative phase. Samples were small and purposive, with many participants digitally confident and already engaged with cooking content. Some country groups differed in composition, limiting direct comparability. In addition, parts of the Responsible Cooking Alliance discussion were constrained by the absence of a working demonstrator version, which reduced the ability to test concrete workflows and ingredient substitution success.

These limitations will be addressed during the project's later stages, as the ICT solutions team (ICCS) will integrate the suggestions and key insights from these workshops into the DietWise tools development, refining and optimising their implementation where feasible within the project scope and technical constraints.

2. Introduction

2.1 Project background

DietWise advances the state-of-the-art by proposing systemic changes, a focus on inclusion, and open social innovations with the aim of developing solutions that streamline existing tools and applications to foster healthy and sustainable food provision and to make cooking, eating, and treating of food at home the most attractive choice for all stakeholders. Using disruptive new approaches and voluntary market self-regulation, our activities will help to dampen nutritional noise gradually and organically merge cultural and commercial practices with a healthier and sustainable food consumption pattern.

The project also aims at empowering citizens with novel, citizen science-based solutions that shift the role citizens play – away from passive actors influenced by the food environment to citizens as active participants influencing their decisions and helping to create better digital food environments.

As a result, our methodological and empirical advancements will provide a deeper understanding of how various external system-level environmental factors shape attitudes and beliefs towards healthy and sustainable food provision and cooking, how to motivate consumers to follow nutrition guidelines, how to include the ones who are in greatest need, and how to help citizens shape digital food environments.

In today's complex digital environment, consumers are constantly exposed to a vast array of food-related information, which is often mediated by online influencers. Food influencers have significant power to shape dietary choices and food-related attitudes, particularly among younger audiences and those active on social media. Understanding and leveraging this influence in a responsible, evidence-based manner is critical to the success of nutrition communication strategies.

Within this context, mapping and engaging key actors, such as influencers and citizens, including vulnerable ones, emerge as a strategically important activity. Influencers are not only powerful content creators but also trusted intermediaries between public messages and personal choices. Citizens are the primary decision-makers in their own food choices, bringing valuable insights into the social, cultural, and practical factors that shape their eating behaviours. Identifying the most relevant actors is crucial to understanding their key drivers and beliefs, as well as their alignment with national nutrition guidelines. This is particularly relevant for DietWise, which aims to create tools and environments that support citizens in making better food choices while promoting integrity and transparency in food communication.

2.2 Purpose of the report

This report summarises the co-creation workshops conducted in three pilot countries, i.e., Belgium, Greece and Lithuania, aimed at engaging three types of key stakeholders, namely influencers, citizens and vulnerable groups, in the co-creation of the DietWise concept and its solutions. These types of stakeholders were included because each group represents a distinct, necessary lens on how food choices are shaped and how DietWise tools must perform in the real world. Citizens provide insight into mainstream everyday cooking routines and the practical requirements for adoption at scale. Vulnerable citizens ensure the tools are tested against tighter constraints, including affordability, time scarcity, cultural and religious requirements, and lower tolerance for friction, which is essential for equity and inclusion. Influencers, as independent content creators and potential high-reach intermediaries between public guidance and daily behaviour, help assess credibility risks, tone, and content feasibility, and they highlight what is needed for responsible uptake within digital food environments.

The workshops sought to foster collaboration among these diverse stakeholder groups in order to identify needs, barriers and opportunities, with the overarching objective of increasing adherence to healthy and sustainable nutrition guidelines.

To ensure consistency and standardisation across countries, the coordinators of this task developed a structured methodology for the co-creation activities. Building on insights generated in Work Package 2 (WP2), tailored methodologies were designed for each target group to address their specific needs and to support the co-creation of DietWise solutions.

SAFE led the co-creation workshops involving influencers and citizens, while PROLEPSIS (PROL) coordinated the workshops with vulnerable groups. The pilot country teams (PHB, VIGL and IHU) organised and facilitated the workshops for each target group, respectively in Lithuania, Belgium and Greece.

This report outlines the methodology developed for the co-creation workshops and provides an overview of the activities carried out, as well as the key findings derived from the workshops with the different target groups.

3. Methodology

Co-creation workshops serve to foster a collaborative environment where all participants are invited to contribute with their ideas, experiences, and perspectives as equal partners in the process. Rather than being passive recipients of information, participants are actively engaged in shaping the discussion, exploring challenges, and generating solutions that reflect their unique insights and needs. This approach encourages open dialogue, mutual learning, and a sense of shared ownership over outcomes. By involving stakeholders in the co-creation process, the workshop becomes a space not only for knowledge exchange but also for building trust and fostering long-term commitment to the project's goals.

The task leaders, SAFE and PROL, worked closely with the field partners to define the most appropriate methodology for conducting the workshops. Tailored methodologies were developed for each target group, namely influencers, citizens and vulnerable groups, taking into account their specific needs and expertise. Each methodology provided comprehensive guidance on the project background, workshop objectives, the concept of co-creation, and the overall workshop approach. In addition, it detailed participant selection criteria and practical aspects of workshop implementation, including format, venue, duration, facilitation and materials. Finally, each methodology described the workshop structure and content and outlined the reporting of activities.

The methodologies were designed as a flexible framework to support field partners in the design and implementation of workshops tailored to their local context and stakeholder needs. Accordingly, each methodology could be adapted to reflect country-specific requirements, the number of participants, and insights emerging throughout the workshop process.

The full methodologies for each stakeholder group are provided in the annexes: **Annex I** presents the workshop methodology for influencers, **Annex II** outlines the workshop methodology for citizens, and **Annex III** details the workshop methodology for vulnerable citizens.

Pilot country teams (PHB, VIGL, IHU) organised and facilitated workshops in Lithuania, Belgium and Greece. They gathered stakeholders on specified dates and involved them in co-development activities. This tailored approach acknowledges the varied experiences across countries in engaging with stakeholders, necessitating distinct tracks for each pilot location. In total, 17 sessions were conducted, with 7 participants in Belgium, 5 in Greece, and 5 in Lithuania. Overall, 53 participants took part in these sessions: 17 in Belgium, 17 in Greece, and 19 in Lithuania. A detailed overview of the workshops and their key findings is presented in Section 4 of this report.

4. Key findings

4.1 Workshops with influencers

A total of eight workshops with influencers were conducted across the pilot countries. Specifically, three sessions took place in Belgium, involving five participants in total (1 + 1 + 3); two sessions were held in Greece, also engaging five participants (3 + 2); and three sessions were organised in Lithuania, involving four participants (2 + 1 + 1). As outlined in **Annex I** (methodology for influencers), a sequential format, i.e., a series of staggered sessions that participants could attend separately, was used where it was not feasible to convene a larger group of influencers at once. This approach helped address practical challenges in influencer engagement and ensured participation despite scheduling constraints.

4.1.1 Workshops overview

Influencer workshops were conducted across the three pilot countries to test the relevance, usability, and acceptability of Dietwise tools for those individuals shaping food choices through public communication. Through the process of co-creation, the role of influencers as independent content creators and trusted intermediaries was explicitly emphasised, facilitating a collaborative environment where the participants felt as equal partners, providing direct and valuable input. While the influencer workshops had this common aim, each pilot country engaged a different mix of influencer types based on previous connections and networks, which strongly influenced the discussion focus and the level of technical detail that participants could meaningfully evaluate.

In **Belgium**, the workshops took place on 16 and 17 December 2025 and brought together a small but strategically influential set of actors, namely a practising dietitian and representatives from large recipe and lifestyle platforms, including stakeholders managing legacy editorial processes and established audiences. Recruitment drew on social media and existing networks, and participants covered a broad age range and professional backgrounds, spanning nutrition, communication and technical fields. The agenda was structured around current content and recipe development practices, followed by a discussion of the Responsible Cooking Alliance (RCA) concept and practical priorities for tool design and integration.

In **Lithuania**, three sessions were organised on 4 and 12 December 2025 and on 13 January 2026. The group consisted of food influencers and bloggers alongside participants with nutrition expertise or training in progress. Recruitment was conducted through social media search, and the participant profile was narrower in age range and more homogeneous in demographics, with variation driven primarily by nutrition education and professional identity. The workshop agenda followed a clear progression from needs and barriers to a presentation of the RCA concept, but discussion was constrained by the limited information available about tool operation and the absence of a demonstrator version.

In **Greece**, workshops were organised on 25 and 26 November 2025, and engaged food influencers, bloggers and dietitians recruited mainly through existing networks and social media. The sessions placed stronger emphasis on motivations to participate and on promotion opportunities, reflecting a more collaboration-oriented frame. As in Lithuania, the RCA was discussed conceptually due to the lack of a prototype, with the agenda prioritising usability expectations, perceived value and next steps for pilot engagement.

Across all three countries, the limited participant numbers, due to already identified difficulties of engaging influencers, mean findings should be treated as exploratory rather than representative. In addition, the absence of a working prototype of the DietWise tools at the time of discussion reduced participants' ability to evaluate concrete workflows, interface logic and the realism of suggested recipe modifications, which is precisely where many of their strongest concerns sit.

4.1.2 Needs and barriers

Country-specific barriers and practical constraints

Belgium

Belgian participants described barriers primarily through the lens of operational risk and organisational constraints. They highlighted prior experience with AI-generated recipes producing unrealistic quantities, strange combinations and substitutions that fail in practice, which would easily lead to audience dissatisfaction and reputational harm. They also raised the crucial issue of **structural mismatch** between pattern level dietary guidance and the reality of individual recipes, warning against systems that treat every dish as needing to embody the full food pyramid. This was coupled with concerns about the workload, because human review is reassuring but not scalable if AI output is high volume or inconsistent. Additionally, participants were especially concerned about the risk of **overcorrection and monotony**, warning against a moralising ("preachy") tone (the term "diet" is already negatively perceived by all participants) and highlighting that repeatedly proposing the same "healthy" substitutions (e.g., "always increase vegetables and reduce meat") would reduce variability and enjoyment. This could lead to user fatigue and thus push users away from the Dietwise tools. Instead, they would expect Dietwise tools to enable incremental improvements ("every small step counts"), not all-or-nothing changes.

A distinctive **institutional constraint** also surfaced. The participant from Vlaams Centrum voor Agro-& Visserijmarketing (VLAM) stressed the need to protect mandates connected to local agricultural products and seasonality, warning that a tool that systematically devalues certain categories such as red meat or full fat dairy may be politically or strategically unacceptable in their context. This is not simply a preference; it is a governance and legitimacy issue to take into account.

Lithuania

Lithuanian participants framed barriers more in terms of **audience engagement** and **their own identity as creators.** They reported that healthy content tends to perform less well than taste-led content, creating a direct tension between public health value and platform incentives. They also worried that a strong health framing would feel preachy and alienate followers, particularly in an environment where nutrition discussions can already be polarised. They stressed convenience as the key factor in deciding the level of engagement. A further barrier was **uneven perceived value**: the qualified nutritionist participant did not see added value in the tool, whereas those without nutrition education expressed stronger potential need, but also greater fear of misinformation.

A highly specific Lithuanian concern related to **evaluation mechanics**. Participants expressed resistance to a points-based recipe scoring system, viewing it as extreme and poorly suited to nuanced content strategies. This suggests that an overly reductive scoring approach risks non-adoption, even when the underlying guidance may be sound.

Greece

Greek participants articulated barriers in practical, consumer-facing terms: **ease of execution, taste and time** were treated as decisive constraints when deciding whether healthy or sustainable choices are realistic. They also noted that many popular food posts are not linked to nutrition or sustainability expectations at all, using examples such as cakes and fried foods, which indicates that a tool positioned as purely health-focused may struggle to align with everyday creator realities.

Cross-cutting needs and barriers across countries

A consistent baseline requirement across countries was **usability**. Participants repeatedly signalled that any tool must be intuitive, quick to operate and aligned with existing working practices, whether those practices involve

professional editorial pipelines in Belgium or fast-paced content production in Greece and Lithuania. Convenience was not framed as a preference but as a condition for sustained engagement.

A second shared need was **credibility**, but its meaning differed across countries. Belgian platforms and professionals emphasised demonstrable reliability of AI tools, including evidence of accuracy and practical feasibility, because brand trust is fragile and difficult to rebuild once damaged. In Lithuania, credibility was also tied to self-confidence, with non-nutrition trained influencers concerned about sounding scientifically incorrect or out of place.

A third shared theme was **tone**. Participants across countries rejected approaches that could be perceived as moralising, diet-focused or simplistic. They described a need for flexibility and optionality, where tools enable incremental improvement without forcing creators into a single ideological position or a uniform content style.

4.1.3 RCA discussion

Across the pilots, the RCA was generally welcomed in principle but often treated as hypothetical due to the absence of a demonstrator version. This limitation matters because many concerns relate to culinary feasibility, substitution realism and interface design, all of which are difficult to assess from descriptions alone.

Belgium

Belgian stakeholders strongly preferred the RCA positioned as a **back-office engine** integrated into existing editorial and recipe development workflows, rather than as a competing public platform. Influencers do not want Dietwise to become a parallel brand that overshadows theirs, they want to retain control over their brand as well as credibility and trust if they were to use AI suggestions. Any technical flaws or contradiction can cost them hard-earned trust with their followers. They valued automated nutrition analysis and decision support, but only if it is demonstrably reliable and produces suggestions that work in real cooking contexts. They also discussed the potential of an approval label and recipe filters, with a clear warning that labelling must be transparent and sufficiently scaled to avoid misrepresenting the wider recipe offer.

The Belgian workshops generated the most detailed feature discussion. Participants asked for seasonality functionality and locality settings to prioritise seasonal ingredients, variety in suggestions to avoid repetitive outputs, configurable strictness so partners can decide how far health optimisation goes, and explicit validation and performance indicators, mainly providing simple indicators of reliability (e.g., degree of alignment with official guidelines). They were equally clear about what to avoid: **systematic overcorrection** in one direction (e.g., drastically reducing meat or fish portions), **moralising language** that does not acknowledge flexibility and personal choice, and any design that implies **every single recipe must be fully guideline compliant**.

Lithuania

Lithuanian participants were interested in the RCA but reported that the information available did not allow them to understand how the tool works. They emphasised that a single function tool would not be attractive, and suggested functions that support **content creation and personal utility**, such as a nutritional value calculator and shopping list builder, which are potentially commodifiable for them. They also proposed that any **recipe score should be visible only to the creator**, reflecting reputational sensitivity and fear of followers' judgement.

Greece

In Greece, the discussion centred on **usability**, the attractiveness of the app experience and **cautious handling of recipe substitutions**. Participants drew on practical experience to warn that certain substitutions often fail, naming the replacement of certain types of flour or butter as a key risk area. Motivation was closely tied to visibility and promotion, with interest in being featured within RecipeWatch and recognised through consortium communication channels.

4.1.4 Key insights and recommendations

Key insights across countries

First, the influencer workshops showcase that **trust and credibility** are crucial factors. Influencers and platforms are willing to experiment, but they will not attach their reputation to outputs, especially AI-automated tools, that cannot be defended as accurate, realistic and aligned with dietary guidance. This is most explicit in Belgium, but it is also present in Lithuania, through fear of "getting the science wrong", and in Greece, through concern that poorly thought or executed recipe substitutions will undermine cooking outcomes as well as their followers' trust and interest.

Second, tools must protect **creator autonomy** and **avoid moralising language**. Participants want to support healthier choices without turning their channels into a constant correction exercise. This is both a values issue and a performance issue, because health-heavy content may reduce engagement in some settings.

Third, a **credible prototype/demo version** to be shown to influencers is essential. In Greece and Lithuania, limited ability to visualise the tool constrained feedback to generalities, which increases the risk that later usability testing will surface avoidable issues that could have been addressed earlier.

Recommendations for DietWise tool development

Across the influencers workshops, key insights and feedback point to the following crucial recommendations to aid the Dietwise tools development:

1. **Position the RCA as an enabling layer, not a competing platform**. This is particularly important for Belgian media and institutional actors concerned about brand, traffic and mandate protection. Integration options should be treated as a core requirement rather than a future enhancement.
2. **Publish a validation and transparency dossier designed for non-technical users**. It should explain how outputs are generated, what is validated, what remains uncertain, and what accountability looks like between DietWise and content owners. Without this, adoption will remain tentative, especially among stakeholders with high reputational exposure.
3. **Build configurability into optimisation logic**. Partners should be able to set strictness and priorities, for example, they may choose to apply modest improvement of recipes rather than strict alignment with nutrition guidelines, and define constraints connected to local products and seasonality. This directly addresses Belgian concerns and also reduces the risk of repetitive, one-direction suggestions that irritate creators and audiences.
4. **Treat culinary feasibility as a primary quality criterion**. Substitution guidance must be tested against real cooking outcomes, particularly baking, where small changes can break texture and performance. A "human in the loop approach" remains necessary, as AI is not considered to be fully credible in autonomy, but it must be operationally realistic, for example targeted review on high-risk substitutions rather than blanket review of all output.
5. **Redesign scoring and labelling to support nuance.** Lithuania's resistance to points-based scoring suggests that a single numeric rating could reduce engagement and increase defensiveness. A better route is private creator facing feedback combined with optional, carefully defined public labels, potentially category-based rather than binary.
6. **Offer influencer relevant utilities and participation incentives**. In Lithuania, practical functions such as calculators and shopping lists were described as valuable because of their potential for commodification and revenue income for influencers. In Greece, motivation was tied to strong promotion and visibility, including featured accounts and recognition through consortium channels. These are not peripheral benefits; they are part of a viable participation model.

It is imperative to mention that these findings reflect small, purposively recruited groups and should not be overgeneralised to national influencer ecosystems. Differences in participant composition also matter: Belgium included larger platforms and institutional stakeholders with governance constraints, whereas Lithuania and Greece were more creator centred. Finally, the lack of a demonstrator version at the time of workshops limited the depth of feedback on real workflows and on the most failure-prone areas, namely substitutions and recipe level practicality. Nonetheless, the insights presented here constitute a valuable source of practical feedback and considerations for the project's tool development.

4.2 Workshops with citizens

A total of four workshops with citizens were conducted across the pilot countries. Specifically, two sessions took place in Belgium, involving six participants in total; one workshop was held in Greece with six participants; and one workshop was organised in Lithuania, involving six participants. They were delivered to test early assumptions about everyday cooking behaviour, digital recipe use, and the practicality of RecipeWatch as a supportive tool for healthier and more sustainable cooking at home. Across all three pilot countries, participants were digitally confident and cooked frequently, which enabled detailed discussion about real world habits, friction points and what would make a new tool worth adopting. However, this also creates an important limitation, as perspectives from citizens with low digital confidence or low cooking involvement are underrepresented.

4.2.1 Workshops overview

Belgium

In Belgium, two sessions on 11 December 2025 and on 6 January 2026 involved six citizens aged 35 to 66 with varied occupational backgrounds, including nutrition and dietetics students, teachers in nutrition and care, a retail manager with coaching experience, and a retired teacher who hosts cooking workshops. Participants were recruited through professional networks, social media, and organisational contacts. Participants used a wide mix of apps and websites for inspiration and leftover based cooking, and generally preferred established culinary figures over the idea of influencers as such. They also emphasised that they do not follow "influencers" unless they are established culinary figures. The agenda explicitly included rating barriers to healthy and sustainable cooking and a prioritisation exercise on app features, which produced more structured design feedback than in the other pilots.

Lithuania

In Lithuania, one workshop held on 26 November 2025 engaged six women aged 29 to 60, all with higher education and daily cooking routines. These participants were recruited through existing networks, previous project participation, and following an open invitation on Vilnius city Public Health Bureau (PHB)'s Facebook page. Participants used social media and Google for ideas, but often described digital content as background inspiration rather than a direct driver of what they cook. One participant reported relying heavily on ChatGPT to generate menus due to multiple health related restrictions, which usefully illustrates that citizens are already experimenting with digital support tools, even if trust and quality concerns remain.

Greece

In Greece, an online workshop was held on 22 December 2025 with the participation of six adults aged between 30 and 65. The group included three men and three women, all with higher education qualifications, and comprised professionals and retirees. All participants were digitally literate and reported cooking on a daily basis. Participants were recruited primarily through the existing project network, notably via involvement in previous initiatives, and through word of mouth. This approach ensured the engagement of individuals already familiar with research-based

discussions on food and digital tools. All participants reported following food- and recipe-related accounts on social media, mainly on Instagram and TikTok, with Facebook used to a lesser extent. These accounts included both individual influencers and collective media platforms sharing recipes. The workshop began with an introduction and background to the project, followed by a brief overview of the RecipeWatch concept. Discussions then focused on participants' digital familiarity, everyday cooking practices, online recipe browsing habits, and the influence of digital content on food choices. The session concluded with a brainstorming exercise and an outline of next steps.

4.2.2 Needs and barriers

Belgium

In the Belgian workshops, participants expressed a clear **need for speed, simplicity and precise instructions**. They preferred accurate measurements in grams and millilitres rather than ambiguous units such as "cups", and they requested practical features such as a cooking mode that keeps the screen active. They also expressed strong interest in ingredient substitution support, a leftover management function to reduce food waste, and automatic filters for seasonal and local products.

Key **barriers** included **information overload** from too many existing apps, the belief that healthier and more sustainable food is **more expensive**, **limited confidence** when deviating from recipes, and the perception that healthy cooking takes **more time**, with busy families wanting recipes that are quick to prepare and easy to follow.

Greece

The workshop held in Greece highlighted several **unmet needs** related to digital cooking tools and everyday food practices. Participants noted that while many existing apps perform well in terms of functionality, they rarely provide **integrated dietary advice** or allow for the creation of **personalised recipe** or cooking lists. All participants regularly access recipes online, with women predominantly using Instagram for inspiration and men relying more on proactive searches via Google or dedicated cooking websites. Female participants were more inclined to try or test recipes encountered through social media feeds and influencers.

Overall, participants expressed **openness to experimenting with new digital tools**. Women in particular, reported frequently adapting recipes based on ingredient availability at home, prior experience, or personal preferences. While none of the participants followed nutritional guidelines in a structured or formal way, most demonstrated a general awareness of healthy eating principles, which they applied informally, for example by reducing butter, sugar, or salt where possible and making simple substitutions.

Several **barriers** to healthy and sustainable eating were also identified. **Cost and portion size** emerged as key considerations for all participants. In particular, female participants highlighted a preference for recipes that can be easily scaled to different quantities without requiring precise or complex measurements. **Time constraints** varied depending on life stage and personal circumstances, such as whether participants were retired, studying, or in full-time employment.

Sustainable eating was largely associated with plant-based diets. Female participants generally expressed positive attitudes towards this approach, while male participants showed more mixed views, often questioning whether plant-based meals would be sufficiently filling or satisfying.

Lithuania

Lithuanian workshops' participants anchored "healthy eating" in **ingredient quality and trust in production methods**, rather than in recipe composition. This appeared to be their main concern, as they emphasised their distrust about how food is produced and what is added to it. In this regard, they wondered whether checking the healthiness of recipes would come naturally or would rather be perceived as an additional step in a food preparation process that already demands a lot from them. This is a crucial concern for the tool development. Rather than

following specific recipes, they place greater importance on the quality of the different ingredients, choosing locally grown foods and shopping at farmers' markets. Some even reported growing their own vegetables.

Crucially, although they all use digital cooking resources, they consider them only as **background inspiration**, as they typically prepare food based on their own ideas. Most importantly, they do **not consciously consider healthy eating guidelines when cooking**, they only have a general understanding of what healthy food is based on personal experiences and health issues.

All participants reported significant **information overload and contradictions** about what is healthy, and they reiterated **distrust about additives and food processing**. Sustainability was often equated with organic products, but this was complicated by scepticism about organic claims, which points to a **credibility gap** that a recipe focused tool alone may not resolve.

Cross-cutting needs and barriers across countries

Across countries, citizens consistently prioritised **convenience**. They described a strong preference for recipes that are quick, clear and adaptable to what is already at home, with minimal extra steps. This aligns closely with the need to avoid burdening users with additional checks or complex nutrition information during cooking.

A second shared theme was a preference for **supportive guidance** rather than instructions. Belgian participants were explicit that the tone must avoid sounding paternalistic, while Lithuanian and Greek participants showed similar caution indirectly by describing how easily an extra step can feel intrusive, particularly when cooking is already time pressured.

A third common barrier was **cost perception**. Citizens linked healthier and more sustainable choices to higher expense, and they evaluated recipes through a practical lens, including the quantity produced, the likelihood of waste, and the availability of ingredients. In Greece, recipe quantity and the ability to scale meals were especially salient, while Belgian participants highlighted that a new tool competes in a crowded app environment and therefore must offer clear added value quickly.

4.2.3 Co-creation of solutions

Despite differences in emphasis, citizens across the three countries converged on the idea that RecipeWatch should **reduce friction, not add tasks**. Proposed solutions focused on making healthier and more sustainable choices easier through automation, personalisation and practical cooking support that fits normal, realistic routines.

Belgium

In Belgium, the co-creation discussion produced a **broad feature set**, including profile-based personalisation for allergies, dislikes (e.g., "no eggplant") and dietary preferences (e.g., vegan, flexitarian), tags indicating if a meal is suitable for batch cooking and freezing, and light touch educational prompts designed to be non-intrusive, for instance to debunk common nutrition myths such as potatoes vs pasta. Participants also suggested short technique videos and especially simple gamified rewards to encourage consistency and long-term use.

Regarding even more concrete suggestions about RecipeWatch, participants were vocal about the **inclusion of a "cooking mode"**, a built-in feature that would prevent the screen from going into sleep mode while cooking. Additionally, they stressed the utility of having an AI-enabled feature **importing recipes via URL or photo** to receive immediate health or sustainability improvement suggestions. In their view, the app should also include **sustainability indicators** for ecological footprint and origin of ingredients, and occasional **push notifications** that keep the app present without becoming irritating.

Greece

During the co-creation discussion in Greece, participants proposed several **practical solutions** to better support healthier, more sustainable, and feasible cooking practices. Rather than simply suggesting alternative ingredients, participants expressed a preference for receiving recommendations for entirely alternative recipes that are more cost-effective or time efficient.

They also highlighted the **value of meal-prepping guidance**, including realistic and easy-to-apply recommendations, as well as practical tips for managing leftovers on a per-recipe basis. In addition, participants suggested that digital tools should offer alternative cooking methods, such as adapting a recipe for oven cooking instead of using a casserole or stovetop preparation. Finally, participants emphasised the importance of including **clear remarks or cautions** when proposing certain ingredient substitutions or cooking methods, particularly where these may affect taste, nutritional value, or cooking outcomes.

Lithuania

In Lithuania, solutions reflected the dominant **concern with quality and individual needs** rather than recipe adherence. Participants asked for nutritional value calculation, recipe suggestions based on available ingredients, and notifications to prevent the app from being forgotten. They also wanted **guidance tailored to personal health priorities**, with examples such as iron related recommendations and warnings about combinations that reduce nutrient absorption. Importantly, this request reinforces the crucial awareness that for some users the value lies in **personalised decision support**, not in a single recipe scoring function.

4.2.4 Key insights and recommendations

Across the three countries, **convenience** stands out as the **decisive adoption lever** in recipe selection and in the acceptance of proposed alternatives, alongside cost considerations and time constraints, which vary depending on household type. For households with children, participants stressed the importance of highlighting child-friendly recipe alternatives to avoid the need to prepare separate meals. These insights have clear implications for the DietWise tools. Adoption, particularly among parents, is likely to be strengthened by the inclusion of child-friendly options, time-saving features, and practical, easy-to-implement recommendations that fit into everyday cooking routines. Citizens will engage if the tool saves time, reduces planning effort and fits their cooking flow, especially if combined with personalisation options. It is safe to assume that anything that feels like an extra checkpoint may quickly undermine RecipeWatch, leading to rejection or withdrawal.

Language tone is a functional requirement, not to be underestimated. Belgian participants explicitly rejected paternalistic language, and the broader pattern across pilots suggests citizens want guidance that feels optional, practical and respectful. Citizens want to retain freedom of choice, even after being informed of healthier patterns and guidelines.

Crucially, citizens **do not naturally frame cooking through guidelines**. In Greece and Lithuania especially, "healthy" was described through general beliefs, personal experience and ingredient quality, rather than structured dietary rules. RecipeWatch must therefore translate guidelines into usable, everyday prompts and practical swaps, without assuming users care about guideline terminology.

Ingredient trust and provenance matter, particularly in Lithuania. For some citizens, the main barrier is not recipe choice but confidence in food quality and trust in claims such as organic. This suggests that sustainability and health messaging needs transparency and plain language explanation, otherwise it will not persuade sceptical users.

Recommendations for DietWise tools development

Across the citizens workshops, key insights and feedback point to the following crucial recommendations to aid the Dietwise tools development:

1. **Design for minimal effort cooking support**. It is essential to prioritise features that remove steps in the cooking process, which is already demanding for most citizens. The most requested features include recipe scaling, leftover based suggestions, and a cooking mode that supports hands-on use. These improvements should be integrated into the flow rather than being presented as a separate evaluation stage.
2. **Build personalisation as a core layer**. Citizens overwhelmingly prefer personalisation options, rather than simply following healthier recipes. This layer should ideally cover allergies, dislikes, dietary preferences and health related needs, and should influence suggestions automatically. Lithuanian participants' emphasis on individual nutritional concerns makes this particularly important.
3. **Emphasise practical benefits: prioritise taste, ease and cost**. Crucial levers such as taste, ease and value for money cannot be ignored during tool development. They should be prioritised, while still offering optional, more in-depth information for those who want it. This aligns with Belgian participants' concern about tone and information overload and with Greek participants' focus on time and household practicality.
4. **Treat cost and waste reduction as fundamental outcomes**. Citizens repeatedly evaluated recipes through price, quantity and leftovers. Features such as meal prep guidance, freezing suitability tags and "use what you have" recipe suggestions should be positioned as central value, not as additional extras.
5. **Prototype-led testing is essential before scaling claims**. Several suggestions provided by citizens depend on interface behaviour, notification occurrence and the realism of recipe substitutions. Without hands-on testing, perceived usefulness may not necessarily translate into sustained use.

These key recommendations summarise what citizens value most when deciding whether to try and use a new app. Given the crowded and overwhelming existing app landscape, RecipeWatch should prioritise these core features to maximise uptake and sustained engagement. Otherwise, it risks becoming irrelevant quickly.

It is important to underline that across all three pilots, participant numbers were small and skewed towards digitally literate citizens who cook regularly, and towards those motivated by a previously existing interest in health and cooking. Lithuanian workshops included only women with higher education, and Belgium's sample included several participants with nutrition adjacent backgrounds, which may increase the sophistication of feedback but reduce generalisability. Recruitment in Greece and Lithuania relied partly on existing networks, which can favour participants already inclined to engage.

4.3 Workshops with vulnerable citizens

A total of five workshops with vulnerable citizens were conducted across the pilot countries. Specifically, two sessions took place in Belgium, involving six participants in total; two sessions were held in Greece with six participants in total; and one session was organised in Lithuania, involving nine participants. These workshops helped understand what would make RecipeWatch genuinely usable and worthwhile for people facing structural constraints, including limited budgets, competing priorities, and in some cases cultural or health related restrictions. Across the three pilots, participants were asked to describe real cooking and recipe search practices, reflect on barriers to healthier and more sustainable eating, and cocreate ideas for an app that offers practical support without adding effort or judgement.

4.3.1 Workshops overview

Belgium

In Belgium, two workshops on 20 November 2025 engaged adult women with a low socio-economic status, mainly from a Turkish cultural background, plus one participant of Belgian background with lived experience in poverty.

Recruitment took place through a community centre and existing networks. Most participants used smartphones confidently, often had multiple apps installed, and regularly searched for recipes online or via social media.

Religious food rules were a strong and explicit framing factor, particularly halal requirements and avoidance of pork and alcohol. The session design combined discussion of current recipe search habits with a detailed exploration of the RecipeWatch concept, followed by priorities around health, budget, culture, religion and convenience, and ended with feature cocreation.

Greece

In Greece, two online workshops were held on 5 January 2026, involving a total of six adults aged between 35 and 55. Two sessions were organised for groups of four and two participants respectively, and targeted low-income adults and educators working in low-income schools. Participants were recruited through low socio-economic status schools and via the IHU network.

The workshops opened with a welcome and introductory session, followed by an overview of the project context. Participants then discussed their current cooking and recipe-search practices before being introduced to the RecipeWatch concept. The sessions continued with a discussion of potential features and use cases of the tool, concluding with reflections on access to the tool and preferred formats and types of digital solutions, with a strong focus on day-to-day feasibility, cost and time.

Lithuania

In Lithuania, the workshop rolled out on 9 December 2025 involved nine older adults aged 61 to 72, predominantly women, recruited through an existing municipality-linked "Social Recipe" programme for older people. Participants were socially active and digitally confident, which allowed the discussion to go beyond basic access issues into questions of trust, health beliefs, and what kind of explanations would be considered credible. The agenda followed a structured pathway: needs and barriers, current practices, RecipeWatch concept and feature discussion, and closing reflections.

4.3.2 Needs and barriers

Belgium

Belgian participants strongly prefer **short, concise recipe videos** and explanations (max. 2-3 minutes) and they demonstrated strong interest in both Turkish and Flemish dishes and wanted recipes that are **recognisable and realistic**. Religious rules were not secondary preferences: participants expected the app to prevent forbidden ingredients from appearing at all. They also emphasised practical health improvements that keep food enjoyable, for example reducing fat through oven cooking rather than frying, and offering lower calorie dessert options that still feel like a treat. Personalised guidance was prioritised here as well (highlighting personal dislikes and allergies), while expressing a strong concern about the high price and low availability of healthy/gluten-free products.

The most distinctive Belgian insight came from the **lived experience of poverty perspective**. Food was described as comfort and safety, with the expert participant making a clear distinction between food being "filling" (calming hunger and offering emotional comfort) and being "feeding" (supporting health in the longer term). This matters because it reframes behaviour that might otherwise be dismissed as poor choices. The design challenge for RecipeWatch then becomes how to improve nourishment while respecting comfort, routine and emotional security. The same perspective also warned that many people in poverty cook "by feel", not by gram weights, which makes strict recipe input burdensome and potentially exclusionary.

Other emphasised barriers included various **cultural habits** to account for, for instance the role of bread in Turkish culture, being present in every meal and with every meal being rich in fat as well. This habit makes portion control and healthier eating considerably more difficult.

Facilitators and enablers in Belgium were unusually strong: participants cooked often, enjoyed learning, already used social media for recipes, and were motivated by family health. They also suggested that adult education and literacy organisations could support onboarding if the app is genuinely simple and intuitive.

Greece

Greek participants framed usefulness almost entirely through **daily life constraints**. They expressed a need for practical dietary support that fits into everyday life, with an emphasis on simple, affordable, and time-efficient home cooking solutions. They highlighted the importance of recipes that use commonly available ingredients, minimise food waste, and allow for flexibility in portion sizes and reuse. Guidance that supports cooking for the whole household, including children, was also identified as a key need.

Cost and time emerged as the main **barriers** to home cooking, with strong consensus among participants. Additional barriers included ingredients that are difficult to reuse, have limited shelf life, or are sold in inconvenient packaging (e.g. flax seeds, quinoa, avocado), as well as recipes that require many steps, specialised equipment, or numerous ingredients.

Sustainability was not a priority when framed as environmental responsibility, but it became more acceptable when framed as cost effectiveness and food waste reduction. This is a critical messaging insight: the same content can be either irrelevant or compelling depending on how it connects to lived priorities.

Digital literacy related to apps and online browsing was not considered a barrier, as participants reported feeling confident using digital tools. While recipes are frequently searched for online, this tends to occur when looking for new ideas rather than on a daily basis.

Key **facilitators** of healthier and more sustainable eating included **quick, easy, and cost-efficient cooking solutions**. Participants valued child-friendly recipes suitable for the entire household, affordable ingredients, and the possibility to prepare meals in batches. The ability to store food safely and reuse it over several days was also seen as an important enabler of healthier cooking practices.

Lithuania

Lithuanian older vulnerable adults prioritised **perceived healthiness and ingredient composition**, placing these above taste and price more consistently than the other pilots. At the same time, they held a strong belief that the food industry undermines health through contamination and chemicals. This combination creates a distinctive requirement: the app must sound credible, evidence-based and expert, otherwise it will be treated as yet another weak signal in a noisy and untrusted environment.

Participants were broadly willing to accept salt, sugar and fat reductions and cooking method changes, and some expressed openness to less familiar replacements. However, **acceptability** was not universal. Whole grain flour was viewed as a risk due to taste and consistency, and whole grain pasta was seen as an obvious swap that does not require app support, implying that RecipeWatch must focus on changes where guidance adds genuine value rather than repeating common knowledge.

Privacy concerns were minimal, but **advertising** was a clear deterrent for a substantial proportion of participants. Support needs centred on step-by-step installation guidance, which is a practical and low-cost design implication.

Cross-cutting needs and barriers across countries

Across the three countries, participants did not ask for abstract nutrition education. They asked for help that protects what matters most in real life: meals must be **affordable, familiar, and likely to succeed in taste and texture**. “Healthier” was acceptable when it was framed as a small improvement to a known dish, not a replacement

of identity, culture, or comfort. This theme was explicit in Belgium through the comfort food framing and in Greece through the repeated insistence that recommendations must not compromise the overall sensory experience of the recipe itself. Lithuania differed slightly because health benefits were prioritised more strongly than price or taste, yet even there, acceptability dropped when changes threatened taste or consistency, such as whole grain flour.

A second shared need is **clarity and brevity**. Participants wanted short, concrete suggestions and did not want long explanations or complex interfaces. Belgian participants asked for very short videos and direct tips. Lithuanian participants preferred brief but scientifically grounded explanations delivered in an expert tone. Greek participants wanted reasoning when changes were not obvious, without the app becoming demanding or time consuming.

A third shared need is **control.** Participants were open to personalisation and did not strongly resist data sharing for customisation, but they wanted transparency about why suggestions are made and the **ability to ignore or adapt them**. This is best seen in Belgium, where participants stated they want to know why a swap is healthier and prefer repeated explanations that support learning over time.

Cost was the most consistent barrier across Belgium and Greece and remained relevant in Lithuania even when not dominant. Participants repeatedly linked healthy eating with higher expense, particularly for specialised products such as gluten-free options, and they were sceptical of recommendations that rely on ingredients that are hard to find, not reusable, or sold in inconvenient packaging that leads to waste.

Time and cognitive load were also major barriers. Greek participants described cost and time as the main constraints for home cooking. Belgium added a deeper poverty-informed interpretation: chronic stress and insecurity reduce the capacity to plan ahead, weigh ingredients, or complete long sequences of steps, meaning that an app that requires detailed data entry before offering value is likely to be abandoned.

A further barrier is **distrust and confusion** in the food environment, particularly in Lithuania. Participants expressed strong concern about the food industry, chemical contamination and the idea that individual choice is outweighed by systemic problems. This belief can reduce the perceived value of a recipe-based tool unless RecipeWatch is careful not to overpromise and instead positions itself as practical support within a wider, imperfect system.

4.3.3 Co-creation of solutions (/feedback on RecipeWatch)

Belgium

Belgian participants proposed a rich feature set designed around real constraints, not overly general advice. They asked for an **ingredient-based recipe finder** so users can cook with what they already have. They requested a **budget friendly filter and cheaper alternatives**, particularly for gluten free diets and other special requirements. Personalising the app from the start is an idea particularly appealing: they deemed religious filtering non-negotiable, including avoiding pork, alcohol, non halal gelatine and certain additives. They would particularly appreciate an automatic filtering that would not even propose the “forbidden” ingredients anymore after their input.

Several suggestions focused on **reducing literacy and stress barriers**. Voice input was explicitly requested so users could say what they plan to cook or what ingredients they have, rather than typing. They emphasised time-saving and ease of use, budget optimisation, and curiosity as key motivators, while warning against the existing advertising clutter, overly complex content, and price concerns. They also mentioned technical/storage limits – some phones already have too many apps, thus people only download more apps that add real added value. **Poverty** increases these barriers and concerns, leading to chronic stress, trauma, and financial insecurity that reduce people’s capability to plan ahead – any overcomplication from RecipeWatch in terms of data entry and planning would worsen this situation.

A distinctive Belgian idea was **shop-scanning functionality**, where the app checks product fit with health goals and religious rules at the point of purchase. Participants noted that halal scanning apps already exist, but combining this with nutrition support would be useful. This is ambitious, but it reflects a coherent user logic: decisions are made in shops as much as in kitchens.

Trust was approached through **explanation and tone**. Participants wanted to understand why a suggested change is healthier, in simple language, and welcomed repetition to reinforce learning as it helps them remember. They explicitly rejected moralising language and asked for a credible "expert friend" style for RecipeWatch. Additionally, they expressed the idea of being able to exchange tips and comment on recipes, in the framework of building a kind of community. At a minimum, they requested the ability to give feedback to improve the AI system when a suggestion would not be ideal or useful. Particularly, participants would appreciate being able to upload, or photograph, and improve their own traditional recipes and receive small, realistic health improvements and a clear shareable version. This "**digital recipe notebook" concept** is particularly valuable because it respects food culture and comfort while enabling gradual improvement.

Greece

In **Greece**, participants were generally supportive of **real-time recipe suggestions**, though some expressed uncertainty about whether recipes would still "work" after proposed changes. Sustainability, understood primarily in environmental terms, was not seen as a key priority; however, when framed around cost efficiency and food waste reduction, sustainability messages were received more positively. Acceptance of suggestions was higher when changes did not alter the sensory qualities of the recipe.

Participants showed a clear preference for **practical and familiar substitutions**, such as alternatives for sugar, different types of flour, butter, or ingredients that may be missing at home. Suggestions related to cooking methods were considered useful, particularly if they included clear equivalences in time and temperature (e.g., air fryer versus oven, or boiling versus steaming). Overall, acceptability was expected to be higher for recommendations involving ingredients that are readily available or already familiar to users.

Personalisation was seen as a key added value. Participants welcomed options to tailor suggestions based on allergies, taste preferences, and specific dietary needs. They also expressed interest in priority-based personalisation, allowing users to indicate whether saving time, reducing cost, or addressing other concerns was most important in a given context. A dynamic checklist, adaptable to different situations (e.g., weekdays versus weekends), was considered particularly useful.

No major **trust concerns** were raised, as participants did not perceive the tool to rely heavily on personal data or detailed user profiling. However, they expressed interest in understanding the reasoning behind recommendations, especially when changes were unfamiliar. Participants suggested that the app should function as a supportive "companion" and provide access to information about its evidence base for users who wish to explore it further. Participants recommended including **additional features** that allow users to save and like recipes, as well as to store adopted recommendations in a personal app library.

Key **motivators** for adoption included the app being free, practical, useful, and easy to use. **Barriers** were mainly related to potential technical issues, advertisements, or excessive demands on user input. Participants noted that clearer support needs could be identified after hands-on experience with the tool.

Lithuania

Lithuanian participants focused on **credibility mechanics**. They asked for brief explanations that feel scientifically grounded and delivered in an expert voice. The **health benefit** was the key motivator for change adoption, which implies that the app should frame each recommendation through a clear health rationale rather than generic "better choice" language. They would generally trust the app's recommendations, as long as they receive a transparent explanation.

They also implicitly defined a **scope boundary** for the tool: where a change is obvious, such as choosing whole grain pasta over regular pasta, RecipeWatch adds very little value for them. Value arises where users face uncertainty, distrust, or complex choices. This suggests prioritising recommendations that are not already common knowledge and designing content that helps people navigate contradictory nutrition information rather than simply rating recipes. They responded positively to the idea of receiving **short and concrete tips**, such as reducing the amount of salt/sugar/fat, or changing the cooking method. However, they specifically expressed reluctance to replace flour with whole-grain flour due to noticeable differences in taste and consistency, which once again emerge as central within citizens' preferences.

Practical onboarding support was also co-created indirectly: **step-by-step installation guidance** was preferred, indicating that even digitally literate older adults benefit from clear, low effort setup. No concerns about privacy were raised – half of the participants even expressed that they would feel discouraged by the possibility of advertising.

Solutions converged across countries

Across the three pilots, participants co-created a **consistent vision**: RecipeWatch should behave like a practical companion that makes small improvements easy, while protecting taste, cost and cultural fit. Put simply, they did not want an app that asks for more work than it gives back. Therefore, co-created solutions clustered around **reducing friction, increasing relevance through personalisation, and strengthening trust through explanations**.

All countries supported **short and concrete improvement tips**, with the most acceptable changes focused on salt, sugar and fat reduction and on cooking method changes such as baking instead of frying. This is an important operational insight because these categories are relatively safe for recipe success compared to more radical ingredient substitutions.

Participants in all countries also heavily supported **personalisation**, and none reported strong privacy barriers in the workshop context. However, personalisation meant different things for each pilot: in Belgium, it centred on religion, dietary restrictions and taste learning; in Greece, it included goal setting and day specific priorities; in Lithuania, it was primarily a route to deliver relevant, credible health guidance.

4.3.4 Key insights and recommendations

Key insights across the three pilots

The workshops with vulnerable citizens have been crucial to understand that RecipeWatch will only be adopted if it respects the **realities of vulnerability**. Across pilots, participants asked for **minimal effort and high relevance support**. Features that demand precise input, long reading, or multiple steps before delivering value are structurally misaligned with the constraints described, particularly where financial stress and insecurity reduce attention and planning capacity.

In Belgium, participants welcomed the idea of RecipeWatch but clearly emphasised that the provided suggestions will need to be **short, clear, personalised and without any overcomplicated extra steps or efforts** (e.g., simple one-line substitutions). Moreover, a **budget-friendly** dimension is essential, showing cheaper alternatives and ingredients. Participants would want an **ingredient-based recipe finder** that allows them to cook with what they have, while welcoming substitutions as long as the reason is transparently explained in simple, meaningful language. In Greece, participants highlighted that **day-to-day practicality** is the most critical factor for the app's usefulness. Recommendations are more likely to be adopted if they do not compromise the success or taste of the recipe. Environmental or plant-based considerations are secondary, unless they also contribute to cost efficiency or reduce food waste.

To maximise adoption, RecipeWatch should provide suggestions that go beyond environmental or plant-based parameters, focusing on alternatives that **respect users' constraints** without affecting the sensory outcome of the dish. Clear guidance should define the threshold for changes that might be "too much" in terms of taste, texture, or overall recipe success. Importantly, most Lithuanian participants indicated that they use recipes primarily for special events, and that they **avoid complex instructions**.

Trust is built through two complementary routes that vary by country. In Belgium, trust depends on plain language explanations that feel like a supportive expert, without ignoring cultural and religious respect. Here, the implication for RecipeWatch is that the app will have to include robust personalisation and filtering for religious rules, as well as personal dislikes, gluten-free options, and other cultural cuisine preferences. In Lithuania, trust depends on an expert tone and scientifically grounded reasoning that can stand up against systemic distrust. In Greece, trust depends on practical reliability, meaning that suggestions must be realistic and preserve sensory quality of the dish.

Sustainability messaging must be context specific. In Greece, it gains relevance when linked to waste reduction and cost savings. In Lithuania, the concept was recognised but poorly defined, suggesting that sustainability features require gentle clarification and clear examples. Based on the insights gathered in the Lithuanian workshop, RecipeWatch should emphasise health-related aspects more than sustainability, because the latter appears to be confusing to older adults. They are interested in gaining more health knowledge and improve their cooking skills. Belgium did not reject sustainability but prioritised affordability, accessibility and cultural fit, which should be treated as the pathway to more sustainable behaviour rather than a parallel agenda.

Recommendations for designing RecipeWatch

Based on these key workshops insights and findings, this report suggests the following crucial recommendations to aid the design and development of RecipeWatch:

1. **Prioritise immediate value on first use**. The app should deliver a useful suggestion with minimal input. To avoid risking rejection, it is evident that RecipeWatch should not have designs that require full recipe transcription, weighing, or long onboarding before any benefit is visible.
2. **Make affordability a core feature, not an add-on**. Ideally, the app should include a budget-friendly filter, cheaper alternatives, and guidance that avoids niche ingredients with poor availability or poor reusability. In Greece and Belgium especially, cost and waste are decisive factors for vulnerable citizens.
3. **Treat cultural and religious requirements as foundational**. For Belgian participants, filtering out forbidden ingredients based on religious habits must happen automatically if the app were to meet their needs. This should be carefully considered during app development.
4. **Design substitutions around a "success guarantee" principle**. Based on the workshop insights, it is sensible to start with the categories participants trust most: salt, sugar and fat reductions, and cooking method changes. Where substitutions are riskier, the app should explain trade-offs and offer safe ranges rather than hard instructions.
5. **Provide explanations that match the audience**. Taking into account the country-based difference, it would be recommended to implement two explanation modes: plain language learning cues for Belgium, and concise expert grounded rationales for Lithuania. In Greece, it is important to provide reasoning primarily when a suggestion is unfamiliar, keeping the default interaction lightweight.
6. **Build optional low literacy pathways**. Voice input and photo-based recipe capture emerged as practical accessibility features in Belgium and are likely beneficial beyond that context. They should be considered early, not deferred, because they materially affect inclusion.
7. **Avoid advertising clutter and performance issues**. Advertising was repeatedly identified as a likely deletion trigger, and Greek participants highlighted technical lag as a barrier. These are not minor user experience issues in vulnerable contexts; they determine whether the app is tolerated at all.
8. **Reframe sustainability through household benefits**. For Greece, it is relevant to position sustainability through cost efficiency and food waste reduction. For Lithuania, a better approach would be to introduce sustainability with concrete everyday examples. For Belgium, it would be more relevant to embed sustainability within culturally familiar recipes and affordable ingredient choices.

These recommendations represent a crucial added value for the DietWise tools development. However, it is important to reflect on crucial **limitations and implications** as done in previous sections. For the workshops with vulnerable citizens, the samples were small and recruited through existing networks, which supports engagement but limits representativeness. Lithuania's group comprised educated, socially active older adults and likely does not reflect older people with low income and low education. Belgium's group was digitally engaged, which is useful for app design, but may underrepresent the people most excluded by literacy and stress barriers. Greece split participation across two small sessions, which reduced the diversity of interaction and may have limited collective ideation. In line with the methodologies designed and applied for the purpose of the workshops, these limitations are an expected and acceptable trade-off for an early, formative co-creation phase.

The workshops were intentionally small to enable trust, participation and depth of discussion, and recruitment through trusted local networks was necessary to reach vulnerable groups safely and ethically. Because RecipeWatch is a digital tool, the sample inevitably leaned towards participants with sufficient digital confidence to engage meaningfully, while those facing stronger digital or literacy exclusion will require targeted methods in later phases. Differences in participant profiles across countries reflect locally feasible and culturally relevant entry points to vulnerability.

5 Conclusions

Across Belgium, Greece and Lithuania, all workshops show a consistent message: DietWise tools will only gain traction if they **make everyday decisions easier without compromising trust, taste, time or affordability**. Citizens and vulnerable citizens described cooking as a practical, emotionally meaningful routine shaped by cost, household needs and habit, rather than by formal dietary guidance. Influencers and platforms framed the same issue through reputational risk, workflow constraints and audience expectations. In all groups, the appetite for healthier and more sustainable choices increased when these were presented as small, realistic upgrades to familiar dishes, rather than as judgement or replacement.

A second central finding is that **credibility** is the main adoption gate, but it must be earned differently in each context. Belgian stakeholders emphasised reliability, culinary feasibility and integration into established editorial processes, with strong sensitivity to organisational mandates and audience trust. Lithuanian participants, particularly older and vulnerable groups, linked acceptability to an expert tone and clear reasoning, shaped by wider distrust in food systems and conflicting nutrition information. Greek participants prioritised practicality and outcomes, including time, ingredient reusability and substitutions that work realistically, while influencers also highlighted the value of recognition and visibility as part of a realistic participation model.

Third, **personalisation** and **respectful tone** are not optional features but conditions for inclusion. Citizens asked for tools that fit their lives: allergies, dislikes, household constraints, and in Belgium's vulnerable group, strict religious requirements that must be handled automatically by the AI system. Participants also repeatedly rejected paternalistic messaging. They preferred an "expert friend" style that offers choice, explains reasoning in plain language, and keeps interaction lightweight. **Sustainability** became most compelling when linked to concrete household benefits such as waste reduction and cost effectiveness, rather than abstract environmental messaging.

The deliverable also highlights important **limitations**. Samples were small, purposive and often digitally confident, which supports early testing of a digital tool but underrepresents those with low literacy, low digital access or high time stress. Country groups differed in composition, which shaped priorities and limited direct comparability. In addition, parts of the influencers workshops' co-creation and some feature discussions were constrained by the lack of a demonstrator version, meaning feedback focused more on principles than on end-to-end usability. Nonetheless, these conditions represent an acceptable trade-off at the current stage of development of the Dietwise tools, as the chosen methodologies still allowed for a feasible and detailed process of co-creation, where crucial content and technical insights were gathered to inform the design thinking and later stages of the Dietwise tools development.

All suggestions and concerns raised through the workshops will be reviewed by the ICT solutions team and, where feasible within the project scope and technical constraints, translated into concrete refinements to the tools and their implementation.

Annex I: Workshop methodology for influencers

1. Co-creation workshops

-**Project background and workshop objectives**: The DietWise project seeks to advance systemic and inclusive approaches to promoting healthy and sustainable food consumption. In today's complex digital environment, consumers are constantly exposed to a vast array of food-related information, which is often mediated by online influencers. Food influencers have significant power to shape dietary choices and food-related attitudes, particularly among younger audiences and those active on social media. Understanding and leveraging this influence in a responsible, evidence-based manner is critical to the success of nutritional communication strategies.

Within this context, engaging influencers is considered a strategically important activity. Influencers are not only powerful content creators but also trusted intermediaries between public messages and personal choices. Identifying the most relevant actors is crucial to understanding their key drivers and beliefs, as well as their alignment with national nutrition guidelines. This is particularly relevant for DietWise, which aims to create tools and environments that support citizens in making better food choices while promoting integrity and transparency in food communication.

The objective of the workshop is to collaborate with influencers to identify needs, barriers, and opportunities, with the goal of improving the alignment of their content with nutrition guidelines and guide the RCA development.

-**Definition of co-creation**: Co-creation serves to foster a collaborative environment where all participants are invited to contribute with their ideas, experiences, and perspectives as equal partners in the process. Rather than being passive recipients of information, influencers are actively engaged in shaping the discussion, exploring challenges, and generating solutions that reflect their unique insights and needs. This approach encourages open dialogue, mutual learning, and a sense of shared ownership over outcomes. By involving influencers in the co-creation process, the workshop becomes a space not only for knowledge exchange but also for building trust and fostering long-term commitment to the project's goals.

2. Methodology

The task leader, SAFE, will coordinate closely with each field partner to define the most suitable methodology for conducting the workshops. Pilot country teams (PHB, VIGL, IHU) will organise and facilitate workshops and provide collected information for further framework creation. They will also gather stakeholders on specified dates and involve them in co-development activities. This tailored approach acknowledges the varied experiences across countries in engaging with influencers, necessitating distinct tracks for each pilot location, namely Belgium, Lithuania, and Greece.

The workshops will be undertaken in three pilot countries (Belgium, Greece and Lithuania) indicatively in Q4 of 2025.

The workshops will specifically target food influencers, including food bloggers, dietitians, and celebrity chefs active on social media platforms. In each country, the aim is to involve four to six influencers per workshop, maintaining high flexibility to accommodate their schedules. A sequential format can be adopted where assembling influencers is not feasible. Participants' selection will build on the relationships established during the interviews conducted under Task 2.3, with field partners re-engaging previously contacted influencers while also expanding the outreach to identify additional relevant participants. To enrich the sessions and provide authoritative input, nutrition experts from the DietWise team will be invited to participate as speakers.

3. Workshop implementation

3.1 General information

-**Format**: Depending on stakeholder needs and organisational feasibility, workshops may be held in person, online, or in a hybrid mode. Where assembling the full cohort (e.g., six participants) is not feasible, the programme will be offered as a sequential workshop format, a set of staggered sessions that individuals can attend separately. Insights from each session will be consolidated to ensure continuity.

-**Venue**: The venue should be a neutral and easily accessible location that fosters open dialogue and inclusivity. It is important that the space feels welcoming, is free of distractions, and includes essential materials such as flipcharts, markers, and refreshments. Attention should also be paid to how the environment may affect participants' behavior and comfort.

-**Duration:** Each workshop should be limited to a maximum of 60 minutes. Considering the demanding schedules of influencers, keeping the sessions concise and focused is essential. A streamlined format will help maintain engagement and increase the likelihood of securing a minimum number of participants, while still ensuring that key objectives are met.

-**Facilitation**: Each session should be facilitated by a moderator from the local partner organisation. The moderator's role is to steer the discussion, encourage balanced participation, and ensure the conversation remains focused on the session's objectives. It is advisable to have a second team member present to handle note-taking and logistical support. An effective facilitator plays a crucial role in guiding the group toward meaningful dialogue and outcomes. This involves clearly and consistently communicating the session's objectives and keeping participants focused throughout. They must actively encourage contributions from all participants, especially quieter voices, while fostering a sense of trust and fairness in interactions. By offering moments of inspiration and reflection, and thoughtfully synthesising ideas, the facilitator helps the group move forward while honoring diverse perspectives. They continuously assess the flow of discussion, gently steering it when needed through thoughtful questioning. Additionally, the facilitator must navigate differing agendas, mediate conflicts, and support constructive negotiation among participants from varied backgrounds.

-**Preparatory materials**: To support a hybrid and flexible experience, a set of optional preparatory materials will be shared before the workshops, to ensure participants are well-informed and ready to engage. These include the session agenda and goals, communication materials such as flyers or banners to summarise the project background and progress, facilitation tools (e.g., brainstorming boards, softwares such as Mentimeter) to facilitate the workshop, tools for collecting feedback and insights during the workshop, and an evaluation form. Engagement with these materials is recommended but not mandatory.

3.2 Workshop structure

The workshop agenda will be adapted to reflect the specific needs of each country, the number of participants, and insights that emerge throughout the workshop process. Below is a proposed agenda, intended as a flexible framework to support field partners in designing and implementing their workshops in a way that best suits their local context and stakeholder needs.

Phase 1: Introduction and context setting (10 minutes)

- Brief welcome by the facilitator:

-Project background: introduction to the DietWise project and objectives, including the RCA

-Workshop objectives: outline the workshop goals, i.e., identifying needs, barriers, and opportunities to increase compliance with healthy and sustainable nutrition guidelines.

- Roundtable to introduce participants.
- Brief explanation emphasising the importance of influencers' unique perspectives and impact.

Phase 2: Rapid exploration of needs, barriers, and opportunities (20 minutes)

- Structured roundtable session:
  - Present a set of needs, barriers and opportunities (based on inputs from WP2).
    - Ask influencers to identify their main needs, barriers and opportunities from the ones presented + propose new ones.

Phase 3: RCA discussion (20 minutes)

- Presentation of the RCA features
- Interactive idea-generation session:
  - Influencers collaboratively propose practical and achievable ideas to improve the RCA:

"Make it Attractive" Prompts:

- "What would you **add** to RCA to make it attractive to *you*?"
- "What would you **remove** (or simplify) to make it attractive to *you*?"

"Name the Scepticism" Prompts:

- What exactly **don't you like** about the RCA? Name the **concern/threat/fear**.
- What would **reduce or eliminate** this concern? Think guardrails, pilots, evidence, redesign, policy tweak, support, messaging, etc.
  - Moderators can use an intuitive colour-coded board to gather feedback on the prompts, or a similar tag system that allows for rapid collection of inputs.
  - OPTIONAL: Rapid prioritisation exercise using simple ranking or voting to identify top actionable solutions to the mentioned concerns or fears.

Phase 4: Summary and next steps (10 minutes)

- Facilitator summarises the main points and prioritised solutions.
- Provides clarity on the next steps, highlighting potential future involvement of influencers.
- Brief session for questions and clarifications.

3.3 Workshop content

The workshop with influencers will focus on gathering insights into their perception of needs, barriers and opportunities to adopt the RCA. In addition, the workshop will identify ways to improve the RCA.

1. Needs

Influencer needs related to the RCA identified in T2.3:

- **Alignment with the influencer's personal values**. Influencers want a sense of authenticity and respect for their individual experience – most importantly, they want to be considered as equal partners.
- The RCA should prioritise **long-term partnerships** that reflect shared values over one-off collaborations, avoiding a competitive approach.
- **Transparent and genuine communication** that emphasises credibility and contribution to public health.

- **Technical feasibility,** i.e., simple and secure tools that ideally integrate seamlessly with their existing systems. **Scalability** is a specific key need for recipe platforms with large and complex databases.
- Digital tools that are **actionable, accessible, and supportive**, emphasising clear, nuanced, and credible messaging to followers/audiences.

2. Barriers to adoption

Barriers related to the RCA identified by the influencers in T2.3:

- Influencers' perceptions of practical **challenges** their **audience** faces (e.g., affordability, accessibility, convenience, taste, cultural and societal norms, psychological resistance, low health literacy).
- **Influencer-specific barriers** (e.g., difficulty in communicating complex nutrition and sustainability concepts effectively).
- **Lack of awareness and professional integration of nutrition guidelines** (low visibility and recognition of national dietary guidelines, insufficiently integrated into academic curricula, professional training and the medical field).
- Impact of **misinformation** and online trends from unverified influencers and **overabundance of conflicting dietary advice** online.
- **Personal reservations** (e.g., potential conflicts of interest) **and beliefs**, especially the perception of nutritional guidelines as overly "preachy" or placing blame on people.
- A **sense of competition with institutions:** distrust towards institutions due to perceived rivalry or belief of not being considered equal partners.
- **Complex and unintuitive integration** of related AI tools.

3. Opportunities for influencer impact

- Identifying **successful communication strategies** or **campaigns** previously used.
- Potential for **influencer-led initiatives to boost audience engagement** and motivation around a future trend, i.e., sustainable diets (e.g., challenges, visual storytelling, practical demonstrations).
- Openness to participate in **initiatives** such as the RCA and use **digital tools** such as RecipeWatch.
- Common reflection: how to effectively **simplify scientific content for a broad audience** (e.g., offering simple and affordable recipe resources, personalised and practical tools, interventions tailored to specific target groups, etc.).
- Promising **features to test**: recipe suggestions from pantry ingredients, leftover-based meals, allergy filters, and culturally relevant weekly meal planning, combining comfort food with subtle health upgrade.
- Build **trust through transparency**: cite scientific or expert sources (e.g., PubMed, dietitians, WHO) to gain credibility and trust.
- Contributing to the **enlargement of their networks** and connections with stakeholders who share their goals and can strengthen their credibility, including the possibility for **collaboration opportunities**.
- Enhance **public image, credibility, and reputation**.
- Have access to **exclusive research and insights**.
- Become a **pioneer in dietary sustainability**.
- Engagement opportunities by **participating in an EU project**.

4. RCA discussions

- **Feedback on RCA features**: 1) weekly meal planning, 2) assessment of websites/ app content, 3) AI-powered software.
- **RCA improvement**: how to make it more attractive for influencers? Features to be kept/added/removed.
- **Actionable collaborations:** Feasible **partnership** ideas among influencers or with external partners (brands, NGOs, institutions).
- Defining clear **next steps** and quick-win actions to implement post-workshop.
- Pilot and promote the **RCA** and the **RecipeWatch** app.

4. Wrap up

Immediate actions and follow-up.

5. Report on activities

1. Session overview
2. Objectives
3. Summary of activities
4. Key insights and takeaways
5. Immediate actions and follow-up
6. Visual material

6. Template workshop summary

- Partners need to use a Word document titled: "Workshop with Influencers – Name of the country" and save it in the T4.1 folder
- Font style and size: Manrope 11
- Space between lines: 1.15
- Follow the structure presented herein

Title: workshop with influencers – [country name]
Date and time: [insert date]
Location / format: [in-person / online / hybrid]
Facilitator(s): [name, role, organisation]
Expert(s): [name, role, organisation]

1. **Workshop Overview**

- **Target group:** [Food influencers, food bloggers, dietitians, celebrity chefs, etc.]

- **Number of articipants:** [4-6 or 4+1+1]

2. **Participant profile**

- **Recruitment source(s):** [Existing networks, social media, etc.]
- **Key characteristics:** [Short description of age group, gender, professional background, etc.]

3. **Workshop agenda**

[Present here the workshop agenda used]

4. **Workshop main findings**

4.1 Needs, barriers and opportunities

Needs identified

- [Summarise the needs identified in relation to the RCA]

Barriers to healthy/sustainable eating

- [Summarise the barriers identified in relation to the RCA]

Opportunities identified

- [Summarise the opportunities identified to enhance influencer impact]

4.2 RCA discussion

- [Summarise the feedback given on existing RCA features]
- [Summarise suggestions to make the RCA more attractive: what to add or remove]
- [Summarise the concerns/threat/fears]
- [Summarise feasible partnership ideas]

5. **Key insights and recommendations**

- **Most important findings:** [3–5 bullet points]
- **Implications for DietWise tools:** [3–5 bullet points]

6. **Workshop reflection**

- **Group dynamics:** [Level of engagement, participation balance, any challenges during facilitation]
- **Additional observations:** [Non-verbal cues, unexpected topics raised]

- **Next steps:** [Suggested follow-up actions]

Annex II: Workshop methodology for citizens

1. Co-creation workshops

-**Project background and workshop objectives**: The DietWise project seeks to advance systemic and inclusive approaches to promoting healthy and sustainable food consumption. In today's complex digital environment, consumers are constantly exposed to a vast array of food-related information, which is often mediated by online influencers. In this context, engaging citizens directly is a strategically important activity. As the primary decision-makers in their own food choices, citizens bring valuable insights into the social, cultural, and practical factors that shape their eating behaviours. Understanding their needs, motivations, and challenges is key to designing interventions that are relevant, accessible, and impactful. This is particularly important for DietWise, which seeks to develop tools and supportive environments that help individuals make better food choices, while fostering transparency and trust in food communication.

The objective of the workshop is to collaborate with citizens to identify needs, barriers, and opportunities related to healthy and sustainable eating, with the goal of informing and enhancing the project's strategies and tools to better support informed food choices.

-**Definition of co-creation**: Co-creation serves to foster a collaborative environment where all participants are invited to contribute with their ideas, experiences, and perspectives as equal partners in the process. Rather than being passive recipients of information, citizens are actively engaged in shaping the discussion, exploring challenges, and generating solutions that reflect their unique insights and needs. This approach encourages open dialogue, mutual learning, and a sense of shared ownership over outcomes. By involving citizens in the co-creation process, the workshop becomes a space not only for knowledge exchange but also for building trust and fostering long-term commitment to the project's goals.

2. Methodology

The task leader, SAFE, will coordinate closely with each field partner to define the most suitable methodology for conducting the workshops. Pilot country teams (PHB, VIGL, IHU) will organise and facilitate workshops and provide collected information for further framework creation. They will also gather stakeholders on specified dates and involve them in co-development activities. This tailored approach acknowledges the varied experiences across, necessitating distinct tracks for each pilot location, namely Belgium, Lithuania, and Greece.

The workshops will be undertaken in three pilot countries (Belgium, Greece and Lithuania) indicatively in Q4 of 2025.

The workshops will specifically target citizens. In each country, the aim is to involve six to eight citizens per workshop. Workshop participants will be selected from the general adult population, primarily individuals aged 21 to 60. The selection will aim for a balanced representation in terms of gender, age, professional background and familiarity or interest in digital cooking resources. Participants should include citizens who actively follow cooking influencers, nutritionists, and recipe platforms (websites or apps). A homogeneous group of motivated citizens is expected to foster more productive discussions, where participants can articulate their needs and highlight what current apps fail to provide. At a later stage, we might benefit from inputs of users who are sceptical of such influencers and have little or no experience with digital cooking resources.

This diverse yet targeted participant profile is intended to capture a wide range of consumer perspectives, while ensuring relevance to the workshop's objectives and themes. To enrich the sessions and provide expert input, a moderator could be invited to facilitate the discussion, and a nutrition expert could follow the debate to provide clarifications and expert perspectives.

3. Workshop implementation

3.1 General information

-**Format**: The workshops will be conducted in person, online, or in a hybrid format, depending on stakeholders' needs and the technical feasibility for the organisers.

-**Venue**: The venue should be a neutral and easily accessible location that fosters open dialogue and inclusivity. It is important that the space feels welcoming, is free of distractions, and includes essential materials such as flipcharts, markers, and refreshments. Attention should also be paid to how the environment may affect participants' behavior and comfort.

-**Duration**: Each workshop should last 60 to 90 minutes. Considering the demanding schedules of participants, keeping the sessions concise and focused is essential. A streamlined format will help maintain engagement and increase the likelihood of securing a minimum number of participants, while still ensuring that key objectives are met.

-**Facilitation**: Each session should be facilitated by a moderator from the local partner organisation. The moderator's role is to steer the discussion, encourage balanced participation, and ensure the conversation remains focused on the session's objectives. It is advisable to have a second team member present to handle note-taking and logistical support. An effective facilitator plays a crucial role in guiding the group toward meaningful dialogue and outcomes. This involves clearly and consistently communicating the session's objectives and keeping participants focused throughout. They must actively encourage contributions from all participants, especially quieter voices, while fostering a sense of trust and fairness in interactions. By offering moments of inspiration and reflection, and thoughtfully synthesising ideas, the facilitator helps the group move forward while honoring diverse perspectives. They continuously assess the flow of discussion, gently steering it when needed through thoughtful questioning. Additionally, the facilitator must navigate differing agendas, mediate conflicts, and support constructive negotiation among participants from varied backgrounds.

-**Materials**: Ahead and/or during the workshops, the agenda and communication materials such as flyers presenting the project and the app should be shared with participants. After the workshop, a brief evaluation form should be sent to collect feedback.

3.2 Workshop structure

The workshop agenda will be adapted to reflect the specific needs of each country, the number of participants, and insights that emerge throughout the workshop process. Below is a proposed workshop structure, intended as a flexible framework to support field partners in designing and implementing their workshops in a way that best suits their local context and stakeholder needs.

Phase 1: Introduction and context setting (10 minutes)

- Facilitator welcomes participants and briefly explains the **objective of the workshop**: identifying needs, barriers, and opportunities to increase compliance with healthy and sustainable nutrition guidelines.
- Project representative presents the **DietWise project** and its key activities, including the **RecipeWatch app**.
- Ask questions to participants to **explore their engagement** with cooking influencers and digital cooking resources.

Phase 2: Identifying needs and barriers (20 minutes)

- Presentation of the **results of the survey of T2.2,** highlighting the main **needs and barriers** identified.

- Based on the survey results, participants discuss whether they agree with the findings, highlighting what they find **valuable** and what could be **improved**, and provide **additional input** they may have regarding their needs and potential obstacles. Facilitators capture key points systematically.

Phase 3: Co-creation of solutions (20 minutes)

- Collaborative brainstorming session:
  - The moderator presents a set of **realistic solutions or opportunities** that the RecipeWatch could potentially offer to overcome identified barriers and invites participants to share their views and feedback.
  - Participants discuss and evaluate which of the proposed solutions they find most **suitable or promising**.
  - Quick prioritization exercise (e.g., voting or ranking) to identify the most promising ideas.

Phase 4: Wrap-up and next steps (10 minutes)

- Facilitator briefly summarises the **main outcomes** and **agreed-upon solutions**.
- Explain the **next steps clearly** and how participants' contributions will be used.
- Opportunity for brief **questions** and **closing remarks**.

3.3 Workshop content

The citizen workshop will explore participants' nutritional habits, the challenges they encounter, their needs in adopting healthier and more sustainable diets, as well as potential opportunities for change and effective approaches to messaging and communication, as outlined below.

Introduction to DietWise (Phase 1)

Introduce the project background and key activities, focusing on the RecipeWatch app:

- Project background
- Key activities
- RecipeWatch app

Participants' digital cooking practices (Phase 1)

Explore participants' **engagement with cooking influencers and digital cooking resources** (such as recipe websites and apps). We aim to understand:

- Whether participants **follow influencers** and/or use **recipe websites and apps**.
- How these sources **influence their cooking practices** (e.g., they gained interest in healthy eating, improved their cooking skills, saved time in meal preparation, discovered new ingredients, saved leftovers, etc.).
- How participants **integrate these recipes into their own cooking**, including frequency and purpose (e.g., daily use vs. special occasions).
- Their openness to trying **new tools or resources.**
- Any **suggestions or recommendations** they have for improving these digital resources.

Main needs and barriers (Phase 2)

a. Main needs:

Indicators identified as possible needs in T2.2:

- **Frequency of the use of different sources of recipes**: most frequently searched online (Google), followed by cookbooks and cooking websites. Less frequent were social networks, cooking apps, and supermarkets' websites; some also mentioned YouTube, TV, family, and friends.
- **Compliance with nutritional guidelines**: need for tools that ensure alignment with nutritional guidelines.
- **Importance of price**: price was identified as an important consideration when choosing recipes and tools for healthier/sustainable cooking.

Results:

- **Need for an integrated, cooking-specific digital tool** (like RecipeWatch) that simplifies access to easy-to-understand recipes and reduces the effort of searching across multiple platforms.

Other possible needs:

- **Gain insights:** need to learn about the healthiness and sustainability of recipes, ingredients, nutrients, alternatives for certain products.
- **Culinary culture**: need for recipes that use traditional ingredients and respect culinary traditions.
- **Consumer ethnocentrism**: need for recipes made of national rather than imported food products.
- **Seasonal food orientation**: need for recipes made of seasonal food products.
- **Waste avoidance**: need for recipes instrumental to reduce leftovers.
- Constraints in **time, cooking skills, or confidence** create a need for accessible recipes that are quick to prepare and simple to follow.

b. Main barriers:

Indicators identified as possible barriers in T2.2:

- **Food provisioning and preparation:** difficulty in purchasing healthy/sustainable foods due to lack of availability (food deserts) + difficulty in planning/shopping/cooking effectively (lack of time).
- **Culinary culture:** traditional practices limiting openness to healthier/sustainable changes, reluctance toward alternatives.
- **Consumer ethnocentrism**: prefer national products over imported products (difficulty in identifying/finding/affording local food).
- **Seasonal food orientation**: difficulty in identifying/finding/affording seasonal and fresh food.
- **Waste avoidance**: difficulty in managing leftovers.
- **Personal innovativeness**: resistance to using new tools.
- **Digital literacy:** difficulty using apps, social media or online tools due to age, income, skills, apps complexity, proliferation of tools.
- **Bad environmental attitudes:** resistance to sustainable cooking, lack of concern for sustainability.

- **Health self-consciousness:** resistance to healthy diets, low motivation to change habits for health reasons.

Other potential barriers:

- **Low food literacy**: difficulty in identifying healthy/sustainable foods and lack of knowledge concerning nutritional guidelines.
- **Cost**: difficulty in affording healthy/sustainable foods.
- **Cooking skills**: difficulty in preparing recipes that seem too complicated (lack of confidence/ willingness, lack of kitchen equipment).
- **Lack of trust**: difficulty in trusting influencers and/or digital cooking tools due to the spread of unhealthy or scientifically unsupported trends and the overabundance of conflicting dietary advice online.

Co-creation of solutions (Phase 3)

Possible solutions based on the drivers identified in T2.2:

- To gain insights into the **healthiness** of recipes: e.g., provide a clear healthiness rating for each recipe (in line with national nutrition guidelines).
- To gain insights into **specific products or nutrients or ingredients**: show detailed information on calories, harmful nutrients (sugar, salt, saturated fats), vitamins, minerals, harmful ingredients (e.g., additives), etc.
- To gain insights into **possible alternatives** for certain products e.g., based on my preferences, suggest healthier, cheaper, or more sustainable alternatives for ingredients.
- To reduce the **amount of leftovers**: e.g., recommend recipes that use available leftovers to minimise waste.
- To gain insight into the intake of **key nutrients**: e.g., monitor the presence of nutrients to ensure they align with the daily intake recommended by nutritional guidelines.
- To gain insights into **sustainability** of recipes: e.g., display carbon footprint, seasonality, and local sourcing options for recipes.
- To select quality foods that are **cheaper** than others: e.g., provide recipes that require affordable, good-quality ingredient options.
- To be **reminded** about products that I need to buy: e.g., notify users about missing items or expiring products.
- To select foods that fit my **diet type**: e.g., based on my preferences, adapt recipes to fit specific dietary needs (e.g., vegetarian, low-sugar, low-salt, etc.).
- To select foods that I am not **allergic** to: e.g., automatically detect and flag recipes with allergens, with safe alternatives suggested.
- To foods that are appropriate for my **religion**: e.g., indicate whether recipes align with religious dietary rules (e.g., halal, kosher).

Possible solutions based on the needs and barriers identified in T2.2:

- **Food provision:** recipes made with ingredients that are easy to find.

- **Smart recipes**: need for accessible recipes that minimise preparation time and cooking complexity, supporting individuals with limited skills, time, or confidence in the kitchen.
- **Culinary culture**: recipes that use traditional ingredients and respect culinary traditions.
- **Consumer ethnocentrism**: recipes made of national rather than imported food products.
- **Seasonal food orientation**: recipes made of seasonal food products.
- **Integrated, cooking-specific digital tool** (like DietWise's app RecipeWatch) that simplifies access to easy-to-understand recipes and reduces the effort of searching across multiple platforms.
- **Improve trust**: recipes and influencers evaluated in line with official nutrition guidelines (RecipeWatch + RCA).

Other features that could be included in the app to overcome the needs you have and the barriers you are facing, and that you haven't found in other existing apps?

Wrap-up and next steps (Phase 4)

- Facilitator briefly summarises the **main outcomes** and **agreed-upon solutions**.
- Explain the **next steps clearly** and how participants' contributions will be used.
- Opportunity for brief **questions** and **closing remarks**.

4. Report on activities

1. Summary of activities
2. Key insights and takeaways
3. Follow up
4. Evaluation form
5. Visual material

5. Template workshop summary

- Partners need to use a word document titled: "Workshop with Citizens – Name of the country" and save it in the T4.1 folder
- Font style and size: Manrope 11
- Space between lines: 1.15
- Follow the structure presented herein

Title: workshop with citizens – [country mame]
Date and time: [insert date]
Location / format: [in-person / online / hybrid]
Facilitator(s): [name, role, organisation]
Expert(s): [name, role, organisation]

1. **Workshop overview**

- **Target group:** [Gender, age, professional background and familiarity or interest in digital cooking resources]
- **Number of participants:** [6–8]

2. **Participant profile**

- **Recruitment source(s):** [Existing networks, social media, etc.]
- **Key characteristics:** [Short description of age group, gender, background, etc.]
- **Engagement with influencers and digital cooking resources**: [Whether they follow influencers/apps/websites, how these influence their cooking practices, how recipes are integrated into their own cooking, openness to new tools, any suggestions]

3. **Workshop agenda**

[Present here the workshop agenda used]

4. **Workshop main findings**

4.1 Needs and barriers

Needs identified

- [List the main dietary/food-related needs expressed by participants]

Barriers to healthy/sustainable eating

- [Summarise challenges such as cost, time, access, skills, digital literacy, cultural preferences, etc.]

4.2 Co-creation of solutions

Solutions identified

- [Summarise solutions identified to overcome the barriers]
- [Summarise concrete suggestions for the BiteWatch app (feedback on the main features of the app, suggestions about other features, etc.)]

5. **Key insights and recommendations**

- **Most important findings:** [3–5 bullet points]
- **Implications for DietWise tools:** [3–5 bullet points]

6. **Workshop reflection**

- **Group dynamics:** [Level of engagement, participation balance, any challenges during facilitation]
- **Additional observations:** [Non-verbal cues, unexpected topics raised]
- **Next steps:** [Suggested follow-up actions]

Annex III: Workshop methodology for vulnerable citizens

1. Introduction to co-creation

The DietWise project seeks to advance systemic and inclusive approaches to promoting healthy and sustainable food consumption. In today's complex digital environment, consumers are constantly exposed to a vast array of food-related information, which is often mediated by online influencers. Food influencers have significant power to shape dietary choices and food-related attitudes, particularly among younger audiences and those active on social media. Understanding and leveraging this influence in a responsible, evidence-based manner is critical to the success of nutritional communication strategies.

In this context, engaging citizens directly is a strategically important activity. As the primary decision-makers in their own food choices, citizens bring valuable insights into the social, cultural, and practical factors that shape their eating behaviours. Understanding their needs, motivations, and challenges is key to designing interventions that are relevant, accessible, and impactful. This is particularly important for DietWise, which seeks to develop tools and supportive environments that help individuals make better food choices, while fostering transparency and trust in food communication.

Co-creation serves to foster a collaborative environment where all participants are invited to contribute with their ideas, experiences, and perspectives as equal partners in the process. Rather than being passive recipients of information, stakeholders are actively engaged in shaping the discussion, exploring challenges, and generating solutions that reflect their unique insights and needs. This approach encourages open dialogue, mutual learning, and a sense of shared ownership over outcomes. By involving citizens in the co-creation process, the workshop becomes a space not only for knowledge exchange but also for building trust and fostering long-term commitment to the project's goals.

2. Methodology

The leader for workshop with vulnerable citizens, PROLEPSIS, will coordinate closely with each field partner to define the most suitable methodology for conducting the workshops. Pilot country teams (PHB, VIGL, IHU) will organise and facilitate workshops and provide collected information for further framework creation. They will also gather stakeholders on specified dates and involve them in co-development activities. This tailored approach acknowledges the varied experiences across countries in engaging with influencers, necessitating distinct tracks for each pilot location, namely Belgium, Lithuania, and Greece.

The workshops will be undertaken in three pilot countries (Belgium, Greece and Lithuania) indicatively in Q4 of 2025.

3. Scope and Specific Objectives

The aim of the workshop is to cooperate with citizens with elements of vulnerability (i.e., youth, elderly, low socioeconomic status, food insecurity etc.) so as to identify specific needs and barriers that can be covered or prevented through the DietWise interventions and IT tools (i.e., RecipeWatch app – for citizens) as well as the opportunities that exist to support the implementation, feasibility and sustainability of the designed interventions and tools. The workshop will be implemented in the three pilot countries of the DietWise project (i.e., Belgium, Greece, Lithuania). The discussion during the workshop will build upon the main conclusions of the survey implemented in the context of Work Package 2 – Task 2.4 'Better understanding of the needs, barriers, and drivers of vulnerable citizens'.

The specific workshop objectives are summarised as follows:

- To understand vulnerable citizens' interests and needs in relation to dietary guidelines.
- To explore vulnerable citizens' attitudes toward food provision, food preparation and cooking at home.
- To select ideas on interventions and functionalities of IT tools that can contribute to minimise barriers such as cost, time, limited nutrition and digital literacy in relation to the adaptation to healthier and more sustainable dietary habits.

4. Workshop participants

1. Profile of vulnerable citizens

Each partner is advised to specify the selection criteria according to the pilot programme that will be implemente d in their pilot country. The following categories are eligible to participate, including some suggestions for recruit ment:

- **Youth (18–21 years)**
  - Schools, vocational training centers, and universities.
  - Youth community centers and NGOs (youth empowerment, health promotion).
- **Older adults (60+ years)**
  - Senior centers, day care centers, and retirement associations.
  - Local health centers and general practitioners.
  - NGOs and charities supporting active aging.
- **Food insecure households**
  - Schools in low socioeconomic areas
  - NGOs working on poverty alleviation and food justice.
- **Adults with low socioeconomic status**
  - Employment agencies and vocational retraining programs.
  - Local housing associations and municipal welfare offices.
  - Community centers in low-income neighborhoods.
- **Minorities**
  - Cultural and religious organisations (mosques, churches, synagogues, cultural clubs).
  - Migrant/refugee support NGOs.
  - Language schools and integration programs.

2. Number of participants

6-8 participants per workshop in each country.

3. Considerations in the recruitment process

- Aim for a homogeneous group. If pilot countries include more than one target group among vulnerable citizens (e.g., youth and elderly), consider splitting the workshop into two separate sessions (3-4 participants/session) as an alternative.

- Include participants that are familiar with the use of nutrition apps, cooking, online search of recipes or nutrition information, etc. A short recruitment questionnaire with relevant questions and a Likert scale could be helpful.

5. Workshop implementation

1. General information

- **Format**: The workshops will be conducted in person, online, or in a hybrid format, depending on stakeholders' needs and the technical feasibility for the organisers.
- **Venue**: The venue should be a neutral and easily accessible location that fosters open dialogue and inclusiveness. It is important that the space feels welcoming, is free of distractions, and includes essential materials such as flipcharts, markers, and refreshments. Attention should also be paid to how the environment may affect participants' behaviour and comfort.
- **Duration**: Each workshop should last 60 to 90 minutes. Considering the demanding schedules of participants, keeping the sessions concise and focused is essential. A streamlined format will help maintain engagement and increase the likelihood of securing a minimum number of participants, while still ensuring that key objectives are met.
- **Facilitation**: Each session should be facilitated by a moderator from the local partner organisation. The moderator's role is to steer the discussion, encourage balanced participation, and ensure the conversation remains focused on the session's objectives. It is advisable to have a second team member present to handle note-taking and logistical support. An effective facilitator plays a crucial role in guiding the group toward meaningful dialogue and outcomes. This involves clearly and consistently communicating the session's objectives and keeping participants focused throughout. They must actively encourage contributions from all participants, especially quieter voices, while fostering a sense of trust and fairness in interactions. By offering moments of inspiration and reflection, and thoughtfully synthesising ideas, the facilitator helps the group move forward while honoring diverse perspectives. They continuously assess the flow of discussion, gently steering it when needed through thoughtful questioning. Additionally, the facilitator must navigate differing agendas, mediate conflicts, and support constructive negotiation among participants from varied backgrounds.
- **Materials**: Ahead and/or during the workshops, the agenda and communication materials such as flyers presenting the project and the app should be shared with participants. After the workshop, a brief evaluation form should be sent to collect feedback.

2. Workshop structure

Phase 1: Introduction and context setting (5 minutes)

Begin with a warm welcome and explain the purpose of the workshop. Present in general the **DietWise project** and the **RecipeWatch app** in very simple terms, using examples that participants can relate to. Clarify that their opinions will directly shape the development of the app. Establish ground rules: respect, no judgment, and no right or wrong answers.

Phase 2: Warm-up (5 minutes)

Build rapport and help participants feel comfortable. Ask a light question:

- *"Think about the last time you searched for online or cooked – what do you remember?"*

Phase 3: Exploring current practices, needs, barriers and facilitators (10-20 minutes)

Explore how participants currently interact with recipes and cooking.

- *"How often do you look up recipes online?"*
- *"What makes it difficult to follow recipes?"* (cost of ingredients, complexity, unhealthy suggestions).
- *"What would make recipes more useful for you?"*

For this section, recalling the main findings from Task 2.4 is recommended, to set more tailor-made questions.

Phase 4: Presenting RecipeWatch (5 minutes)

Introduce the idea of RecipeWatch. Demonstrate a simple case, for example: a recipe suggests too much salt, and the app proposes a healthier reduction or substitution. Explain that the app makes suggestions, but the user decides whether to accept or reject them.

Phase 5: Discussing features (15-25 minutes)

This is the core of the workshop. Encourage participants to reflect on the app's functionalities, whether they are helpful or problematic, and how they might use them.

1. **Real-time suggestions**
   - *"How do you feel about the idea of getting suggestions for healthier or more sustainable ingredients while you are reading a recipe?"*
   - Explore whether this feels supportive or disruptive.
   - Ask whether they would prefer to see all suggestions at once or as pop-ups.
   - Explore whether suggestions should be short and clear or more detailed.
2. **Types of substitutions**
   - *"Which types of changes would you accept more easily?"*
     - Reductions (salt, sugar, fat).
     - Similar replacements (margarine → olive oil).
     - Less familiar replacements (palm oil → rapeseed oil).
     - Cooking method changes (baking instead of frying).
   - *"What would make you more likely to accept them?"* (cost, taste, health benefits).
3. **Personalisation**
   - *"The app could tailor suggestions if you share information like personal preferences, allergies, religion etc. Would you be comfortable sharing this?"*
   - Probe what would make them feel safe, whether they prefer a quick checklist or a detailed profile, and if they would want to adjust settings later.
4. **Feedback and learning**
   - *"After cooking, the app could ask you to rate the recipe with substitutions. Would you do this?"*
   - Explore motivations: helping others, earning points, improving suggestions.
   - Check how much effort they are willing to invest (one click vs. short comment).
5. **Trust and control**
   - *"Do you trust an app to advise you on healthier or more sustainable choices?"*

- Explore whether they would want to see the reason behind each suggestion.
- Ask if they prefer scientific explanations or simple labels like "healthier/cheaper/better."
- Discuss whether the app should act more like an expert/teacher or like a friend.

Phase 6: Mini Co-creation exercise (10-15 minutes)

Present a scenario where a recipe suggests white flour and the app proposes whole wheat flour. Discuss:

- *"Would you accept this change?"*
- *"What reasons would make you reject it?"*
- *"What other alternatives would you suggest?"*

The aim is to collect practical examples of substitutions and to better understand barriers to acceptance that may include preferences, practicality issues (e.g., recipe success), familiarity with the alternative solution, etc.

Phase 7: Browser extension and access (10-15 minutes)

Explore the format of the app and how participants might use it.

1. **Format preference**
   - Ask which devices they usually use for recipes, and whether they would switch between devices.
2. **Motivators and barriers**
   - *"What would make you want to install this extension? What might stop you?"*
   - Motivators may include saving time, healthier eating, saving money, curiosity.
   - Barriers may include privacy concerns, advertising, lack of trust, technical difficulty, limited storage.
   - Probe on what could reduce these barriers.
3. **Support needs**
   - *"If you got stuck installing it, what kind of help would you need?"*
   - Explore preferences for step-by-step guides, short video tutorials, customer support chats, or asking family/friends.
2. **Integration into daily life**
   - *"If RecipeWatch was part of your cooking routine, how often would you use it?"*
   - Ask whether they would use it every time, only for new recipes, for special occasions, or rarely.
   - Explore whether they would recommend it to others.

Phase 8 Closing (5 minutes)

Wrap up by summarising the key points raised during the workshop. Emphasise that their contributions will directly shape the RecipeWatch app. Thank participants for their time and valuable input.

6. Template workshop summary

- Partners need to use a word document titled: "Workshop of Vulnerable Citizens – Name of the country" and save it in the T4.1 folder

- Font style and size: Manrope 11
- Space between lines: 1.15
- Follow the structure presented herein

Title: workshop with vulnerable citizens – [country mame]
Date and time: [insert date]
Location / format: [in-person / online / hybrid]
Facilitator(s): [name, role, organisation]
Expert(s): [name, role, organisation]

1. **Workshop Overview**

- **Target group:** [Youth / elderly / low-income adults / minorities / food insecure households]
- **Number of participants:** [6–8, or 3–4 if group is split]

2. **Participant profile**

- **Recruitment source(s):** [E.g., comunity centers, NGOs, schools]
- **Key characteristics:** [Short description of age group, background, vulnerabilities]

3. **Workshop agenda**

[Present here the workshop agenda used]

4. **Workshop main findings**

4.1 Needs, barriers and facilitators

Needs identified

- [List the main dietary/food-related needs expressed by participants]

Barriers to healthy/sustainable eating

- [Summarise challenges such as cost, time, access, skills, digital literacy, cultural preferences, etc.]

Facilitators and enablers

- [Summarise factors that support healthier eating, e.g., family support, familiarity with cooking, existing digital tools, community programs]

4.2 Feedback on RecipeWatch

Perceptions of real-time suggestions

- [Supportive / disruptive / preferences for display]

Suggestions preferences

- [Types of substitutions or other solutions accepted/rejected, reasons]

Personalisation

- [Comfort with sharing data, preferences for privacy and customisation]

Trust and control

- [Views on trusting the app, preferred style of advice (expert vs. friend, scientific vs. simple labels)]

Additional suggested features

- [Any new ideas participants proposed]

4.3 Motivators and barriers to app adoption

- **Motivators:** [Why participants would use RecipeWatch — health, money, convenience, curiosity]
- **Barriers:** [Why participants may hesitate — privacy concerns, usability, technical issues]
- **Support needed:** [Preferred forms of assistance — tutorials, customer support, peer help]

4.4 Key insights and recommendations

- **Most important findings:** [3–5 bullet points]
- **Implications for DietWise tools:** [3–5 bullet points]

4.5 Workshop reflection

- **Group dynamics:** [Level of engagement, participation balance, any challenges during facilitation]
- **Additional observations:** [Non-verbal cues, unexpected topics raised]
- **Next steps:** [Suggested follow-up actions]