



Deliverable 2.1 - Living Lab Methodology Guide

30th September 2026



Co-funded by
the European Union



Funded by the PRIMA Foundation (co-funded by the European Union and the Participating States). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the PRIMA Foundation. Neither the European Union nor the granting authority can be held responsible for them.

Table of Contents

1.	Deliverable	3
2.	Executive Summary	5
3.	List of Tables	6
4.	List of Figures	7
5.	List of Abbreviations	8
6.	Methodology & Approach	9
6.1	Brief description and background into the four countries	9
6.2	Baseline information (Discover phase)	9
6.2.1	Baseline information for Malta	9
6.2.2.	Baseline information for Greece.....	11
6.2.3.	Baseline information for Tunisia	14
6.2.4.	Baseline information for Morocco	17
6.2.5	Conclusions.....	18
6.3.	Methodological considerations	22
6.4.	Detailed timeline and phase description	29
7.	Success measures	39
8.	Composition and Governance of the living Labs	41
8.1.	Composition at school level	41
8.2.	Governance and decision making	43
8.3.	Operations.....	44
9.	Conclusions	46
10.	References	47
11.	Annexes	50

1. Deliverable

DELIVERABLE TITLE	
Identifier	Deliverable D2.1 – Living Lab Methodology Guide
Lead Beneficiary	UOMA
WP N°	2
WP Title	WP2: Methodology and Living Lab Design
Document Author(s)	Foteini Pavli - FP [UOMA]
Document Contributor(s)	Nikolaos Ploskas – NP [UOWM]; Danai Antonaki – DA [iED]; Konstantina Avdala – KA [UOWM]; Foteini Bompola – FB [UOWM]; Vasileios Valdramidis – VV [UOWM]; Myrsini Kakagianni – MK [UOWM]; Filanthi Papadimitriou – FP [UOWM]; Emmanouil Karantoumanis – EK [UOWM]; Iraklis Dimitriadis – ID [UOWM]; Chrysanthi Bonti – CB [UOWM]; Edward Duca - ED [UOMA]; Claire Copperstone - CC [UOMA] Loic Lextrait – LL [EVAV]; Despoina Papadopoulou – DP [RDEWM]; Gemma Cornau – GC [ACTIA]; Fabian Borg – FB [GLC]; Khadija Khouya – KK [IAV-CHA]; Houda Taimourya – HT [IAV-CHA]; Mohamed Hachana – MH [UOMO]; Sawsen Ayadi – SA [INAT]; Salma Jallouli – SJ [INAT].
Document Reviewer(s)	Evangelia Triantafyllou – ET [RDEWM]; Dafni Dimakopoulou Papazoglou – DDP [UOWM];
Contractual Due Date	30/09/2026 (M4)
Delivery Date to EC	30/09/2026
Type	R – Document, Report
Dissemination Level	PU - Public
Version	1.0
Status	Final

PROJECT INFORMATION	
Grant Agreement Number	2531
Project Full Title	Co-creating Living Labs to bring the Mediterranean Diet back to schools

Project Acronym	SchoolMedDiet
Funding Scheme	PRIMA Programme
Start Date	01/06/2026
Duration	36 months
Project Coordinator	University of Western Macedonia (UOWM), Greece
Project Website	www.schoolmeddiet.eu

VERSION RECORD			
Version	Date	Author	Description of changes
V0.1	03/09/2026	FP [UOMA]	Draft shared with partners
V0.2	22/09/2026	DA [iED], KA [UOWM], FB [UOWM], VV [UOWM], DDP [UOWM], MK [UOWM], EA [UOWM], FP [UOWM], EK [UOWM], ID [UOWM], CB [UOWM], LL [EVAV], DP [RDEWM], ET [RDEWM], GC [ACTIA], FB [GLC], KK [IAV-CHA], HT [IAV-CHA], MH [UOMO], SA [INAT], SJ [INAT]	Updates and revision
V1.0	30/09/2026	FP [UOMA]	Final version

2. Executive Summary

This deliverable presents the methodological framework for the design, implementation, monitoring, and evaluation of Living Labs in schools across the Mediterranean region. It establishes a common approach to support coherent implementation across participating countries and pilot sites, while allowing sufficient flexibility to accommodate diverse educational, institutional, socio-economic, and cultural contexts.

The methodology defines the scope, objectives, target groups, and key stakeholders of the Living Labs and provides guidance for their operationalisation throughout the project lifecycle. It outlines the main implementation phases and timeline, together with the inclusion and exclusion criteria applicable to participating schools and stakeholders. It further specifies the tools and participatory methods to be used for stakeholder engagement, co-creation, data collection, documentation, monitoring, and evaluation.

A key component of the framework is the establishment of structured feedback loops, enabling evidence and stakeholder input generated during implementation to inform continuous improvement and adaptation of Living Lab activities. Governance and coordination mechanisms are also defined to support transparent decision-making, clear allocation of responsibilities, quality assurance, and consistency across pilot sites.

The methodology integrates ethical, legal, and data-protection requirements throughout all stages of implementation. Particular attention is given to informed participation, safeguarding, inclusion and accessibility, responsible research practices, and compliance with the General Data Protection Regulation (GDPR).

Overall, this deliverable provides partners with a harmonised methodological and operational framework for implementing Living Labs effectively and consistently, generating comparable evidence and transferable knowledge, and supporting the replication, scalability, and sustainability of project approaches and outcomes across the Mediterranean region and beyond.

3. List of Tables

Table 1. Common set of dimensions across the 4 countries influencing participation or the adoption of the activities/interventions, ...	21
Table 2. Components of age-sensitive approach.	25
Table 3. Proposed age-sensitive approach per age group.....	26
Table 4. Success measures and KPIs relevant to the Methodology of the Living Labs.	39
Table 5. Template for Stakeholder Mapping.....	50
Table 6. Planning and Documentation Template for Living Lab activities.	54
Table 7. Food Safety and Allergen checklist for Living Lab activities involving cooking/tasting.	55

4. List of Figures

Figure 1. Data for 11-, 13- and 15-year-olds reporting drinking sugary soft drinks on a daily basis in Malta and Greece (HSBC survey, 2022).	13
Figure 2. Data for 11-, 13- and 15-year-olds who are overweight or living with obesity in Malta and Greece (HBSC survey, 2022).....	14
Figure 3. A structured approach from country evidence to Living Lab Methodology.	21
Figure 4. SchoolMedDiet Living Lab Methodological Framework.	23
Figure 5. Schematic representation of the Living Lab Methodology and Timeline for SchoolMedDiet.	38
Figure 6. Governance structure for a SchoolMedDiet Living Lab.	41
Figure 7. Living Lab Governance Framework.....	44

5. List of Abbreviations

MD	- Mediterranean Diet
PRIMA	- Partnership for Research and Innovation in the Mediterranean Area
KPI	- Key Performance Indicator
COSI	- Childhood Obesity Surveillance Initiative
HBSC	- Health Behavior in Schoolchildren
IOTF	- International Obesity Task Force
WHO	- World Health Organization
PA	- Physical Activity
BMI	- Body Mass Index
HNNHS	- Hellenic National Nutrition and Health Survey
OOESCO	- Office des œuvres scolaires
NCDs	- Non-communicable Diseases
WP	- Work Package
GDPR	- General Data Protection Regulation
LLs	- Living Labs
STEAM	- Science, Technology, Engineering, Arts and Mathematics
VR	- Virtual Reality
AI	- Artificial Intelligence
SMT	- Senior Management Team
NGO	- Non-governmental Organization

6. Methodology & Approach

6.1 Brief description and background into the four countries

SchoolMedDiet is a transnational Innovation Action that aims to re-establish the Mediterranean Diet (MD) as a cornerstone of healthy, sustainable and inclusive school food systems across the Mediterranean region. In response to PRIMA Call Topic 1.3.1, the project brings together digital innovation, community-based engagement, and policy transformation to empower children, families, educators, and public authorities in co-shaping food environments that align with MD principles and values. This project will encompass the establishment of a Mediterranean Living Lab Knowledge Hub to facilitate transnational knowledge exchange using structured mechanisms for transnational exchange and mutual learning across the four implementing countries. The Mediterranean Living Lab Knowledge Hub will be developed as a digital platform to host case studies, co-creation outputs, localized procurement templates, and video stories from each pilot country.

In this deliverable, the Living Lab protocol will be established. In the Living Labs, activities are tailored to encourage equitable participation of all genders, avoiding traditional gender stereotypes in cooking, gardening, or app interaction, with the following KPIs addressed:

- Custom KPI 1: Number of national Living labs co-created and operationalized (4)
- KPI 5: ≥ 500 women (female students) and young people aged 15-18
- KPI 12: ≥ 100 individuals trained through structured sessions (teachers, families and school administrators engaged in structured training activities via the Living Labs)

6.2 Baseline information (Discover phase)

6.2.1 Baseline information for Malta

The Childhood Obesity Surveillance Initiative (COSI) reports, using WHO definitions, 35.5% [34.8-36.1] and 17.1% [16.6-17.7] of 7-year-olds in Malta living with overweight (including obesity) and obesity respectively (WHO, 2025), the fifth highest from all participating countries. Boys were recorded to be at slightly higher prevalence than girls (36.0% [35.1-37.0] versus 34.8% [33.8-35.8]). However, girls reported higher increases from previous data

collection round. Using IOTF cut-off measures, 27.3% [26.4-28.2] of boys, and 29.6% [28.7-30.5] of girls were living with overweight (including obesity), whilst 10.3% [9.7-10.9] and 12.3% [11.6-13.0] were living with obesity respectively. Approximately half of the children were reported to consume fresh fruit daily (higher than the 46% average, with lower percentages for consumption of fresh vegetables at approximately one third (lower than the average of 32%).

The Health Behavior in Schoolchildren study (HBSC) is another rolling program conducted every four years through school-based self-reported surveys. 51 countries across Europe, Central Asia and North America are included. The survey data includes self-reported weight and height data, and eating behaviors, amongst other indicators, across 11-, 13- and 15-year-olds. About 22% of adolescents were living with overweight or obesity overall, using the 2007 WHO growth reference charts. For Malta, there was a slight decrease in obesity prevalence from the 2018 reporting phase. Overweight (including obesity) prevalence stood at approximately one third for all age groups (for example 11-year-olds: prevalence was 34% and 41% compared to the average of 20% and 30% respectively for girls and boys (WHO, 2023). Daily self-reported vegetable consumption was, for 11-year-olds: 36% and 34% of girls and boys; for 13-year-olds: 33% of girls and 37% of boys; 15-year-olds: 29% and 32% respectively. Fruit consumption was better with 48% and 47%, 39% and 45%, 33% and 38%- for same age groups, girls and boys respectively. For sugary drinks, there were similar results across the three age groups, with 21% and 17% of 11-year-old girls and boys, for example, stating they consumed sugary drinks daily. For sweets (including chocolate) between approximately one third to close to half the children across all age groups reported consuming daily, the highest in the 11-year-old age group (43% and 31% for girls and boys respectively). Less than half reported consuming daily breakfast across all age groups, with the highest being the 11-year-olds at 43% and 46% for girls and boys respectively.

For adults, Mediterranean dietary adherence was measured in a cross-sectional study with 3947 participants (Cuschieri and Libra, 2021) using a literature-based MEDI-LITE Mediterranean diet adherence score. The overall Mediterranean diet adherence mean score was 7.19 (SD 1.91), considered a medium score, and lower than other results from other Mediterranean regions. Being female and being older was associated with higher adherence to the Mediterranean diet.

Implications for Living Labs: The evidence from Malta, particularly the high obesity prevalence, sugary drink consumption and low breakfast consumption promotes the need to increase the outcome measures to beyond simply MD adherence, incorporating aspects of PA, and sedentary behaviors. A deeper knowledge of drivers is also encouraged, including socio-economic determinants such as nutrition knowledge/ literacy in both parents and children.

6.2.2. Baseline information for Greece

According to the World Health Organization (WHO), the estimated prevalence of obesity among children and adolescents aged 5–19 years in Greece was 11.6% in 2022 (uncertainty interval: 9.2–14.1%). This estimate is based on the WHO growth reference, which defines obesity in this age group as a body mass index (BMI) more than two standard deviations above the median for age and sex.

A more detailed picture of overweight and obesity among Greek adolescents is provided by the Greek arm of the Health Behavior in School-aged Children (HBSC) study. Analysis of the 2018 survey, involving 3,816 students aged 11, 13, and 15 years, found that 19.4% were classified as overweight and 5.3% as obese according to WHO growth-reference criteria. These findings indicate that approximately one in four adolescents (24.7%) were living with overweight or obesity (Makri et al., 2022).

Marked differences were observed between boys and girls. The prevalence of overweight was 24.1% among boys compared with 14.7% among girls, while obesity affected 7.3% of boys and 3.4% of girls. The study also identified behavioral and socioeconomic factors associated with excess body weight. Higher odds of overweight or obesity were associated with being male, lower family affluence, and skipping breakfast, whereas higher levels of physical activity were associated with lower odds of overweight (Makri et al., 2022).

The Greek HBSC study provides useful information on dietary behaviors among school-aged adolescents. A study based on 3,525 Greek adolescents aged 11, 13 and 15 years participating in the 2018 HBSC survey found that 32.9% reported having breakfast on no more than one weekday per week, while 20.2% rarely ate meals with their family. In addition, 26.1% reported eating a meal while watching television at least five days per week, and 31.7% reported eating snacks in front of a screen at least five days per week. Fast-food consumption was also

relatively common: 24.1% of adolescents reported eating in fast-food restaurants at least once per week. Frequent fast-food consumption, skipping breakfast and rarely eating with the family were associated with poorer overall diet quality (Benetou et al., 2020).

A recent prospective Greek study provides additional evidence on dietary habits specifically among children and adolescents with overweight and obesity. The study included 880 participants with a mean age of 12.2 years, of whom 658 were classified as having obesity and 222 as having overweight, and assessed dietary habits using the ToyBox food frequency questionnaire. The findings indicated frequent consumption of several food groups relevant to the SchoolMedDiet needs assessment. In both BMI groups, the majority of participants consumed more than 115g of meat and poultry, most commonly 2–4 times per week, while significant differences in the consumption of specific foods and beverages were also observed between boys and girls. These findings provide complementary evidence on dietary behaviors among Greek children and adolescents already affected by overweight or obesity and could help inform the selection of dietary dimensions explored in the SchoolMedDiet needs assessment (Petrrou et al., 2026).

Additional evidence on processed and ultra-processed food consumption is available from the Hellenic National Nutrition and Health Survey (HNNHS). A recent analysis used dietary data from 469 children and adolescents aged 2–18 years collected as part of this population-based Greek survey. Foods were classified according to the NOVA system, and the median contribution of ultra-processed foods to total energy intake was 38.6%. Although the age range is broader than the SchoolMedDiet target population, the dataset provides a relevant national source for understanding ultra-processed food consumption among young people in Greece (Petriddi et al., 2026).

Evidence specifically covering the SchoolMedDiet age range of 9–18 years is also available from a study involving Greek schoolchildren (note: this is a school-based study in Larissa, Greece) who recorded their meals through a mobile application. The Greek sample included 226 students aged 9–18 years, and the study examined consumption of ultra-processed foods as well as fruit and vegetables based on images of breakfast, lunch and dinner recorded before and during the COVID-19 pandemic (Dhammawati et al., 2023). Another Greek school-based epidemiological study involving 1,718 preadolescents with a mean age of 11.2 years examined junk-food consumption and its environmental determinants. The majority of participants were

classified as at least moderate junk-food consumers, while almost 30% were classified as high consumers. Lower junk-food consumption was associated with a healthier family food environment, more frequent family meals, healthier parental dietary practices, teacher influence and participation in extracurricular sports, while exposure to advertising was associated with less healthy eating behavior (Gketsios et al., 2022).

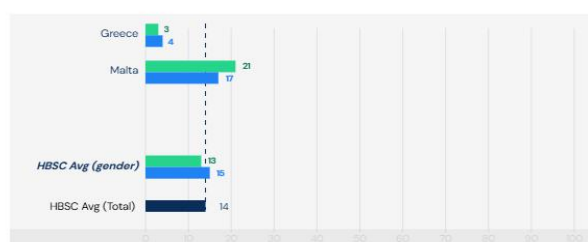
Implications for Living Labs: Overall, the Greek evidence suggests that the SchoolMedDiet needs assessment should not focus only on individual food groups or Mediterranean Diet adherence, but also on the broader behavioral and environmental context of students' food choices. In the Greek Living Lab, particular attention could therefore be given to breakfast habits, frequency of family meals, screen-related eating, fast-food and ultra-processed food

C 11-year-olds who report drinking sugary soft drinks daily

for

HBSC survey 2022

Girls (%)
Boys (%)



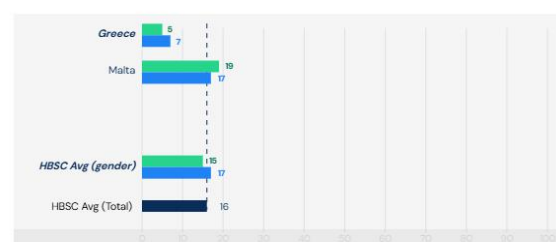
Note: country/region name in bold indicates a significant gender difference (at $P < 0.05$). Note: no data were received from Belgium (French).

Source: <https://data-browser.hbsc.org>

13-year-olds who report drinking sugary soft drinks daily

HBSC survey 2022

Girls (%)
Boys (%)



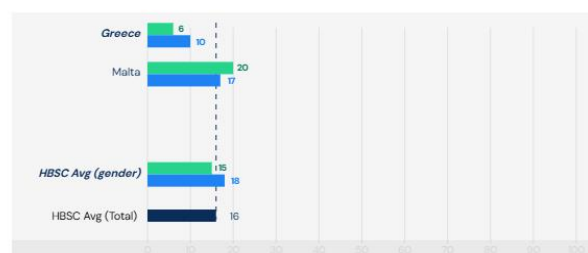
Note: country/region name in bold indicates a significant gender difference (at $P < 0.05$). Note: no data were received from Belgium (French).

Source: <https://data-browser.hbsc.org>

15-year-olds who report drinking sugary soft drinks daily

HBSC survey 2022

Girls (%)
Boys (%)

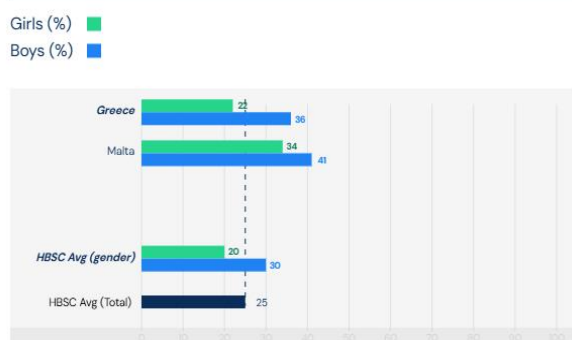


Note: country/region name in bold indicates a significant gender difference (at $P < 0.05$). Note: no data were received from Belgium (French).

Source: <https://data-browser.hbsc.org>

11-year-olds who are overweight or obese (based on WHO growth reference)

HBSC survey 2022



Note: country/region name in bold indicates a significant gender difference (at $P < 0.05$). Note: no data were received from Scotland and England (11- and 13-year-olds). Country/region and age-group samples missing more than 50% of BMI data have been removed, including England (15-year-old girls), Greenland, Ireland, Norway (11-year-old girls), Romania, and Wales.

Source: <https://data-browser.hbsc.org>

13-year-olds who are overweight or obese (based on WHO growth reference)

HBSC survey 2022

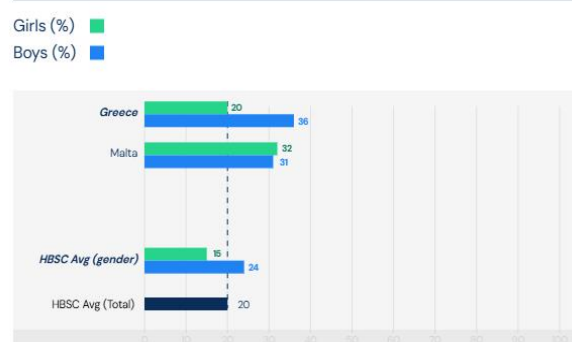


Note: country/region name in bold indicates a significant gender difference (at $P < 0.05$). Note: no data were received from Scotland and England (11- and 13-year-olds). Country/region and age-group samples missing more than 50% of BMI data have been removed, including England (15-year-old girls), Greenland, Ireland, Norway (11-year-old girls), Romania, and Wales.

Source: <https://data-browser.hbsc.org>

15-year-olds who are overweight or obese (based on WHO growth reference)

HBSC survey 2022



Note: country/region name in bold indicates a significant gender difference (at $P < 0.05$). Note: no data were received from Scotland and England (11- and 13-year-olds). Country/region and age-group samples missing more than 50% of BMI data have been removed, including England (15-year-old girls), Greenland, Ireland, Norway (11-year-old girls), Romania, and Wales.

Source: <https://data-browser.hbsc.org>

Figure 2. Data for 11-, 13- and 15-year-olds who are overweight or living with obesity in Malta and

6.2.3. Baseline information for Tunisia

In Tunisia, obesity among children and adolescents aged 9 to 18 has become a major public-health concern, marked by sharply rising prevalence rates. Among schoolchildren aged 10–12 years, overweight prevalence has reached 35.3%, including 8.6% obesity, and affects girls more frequently than boys (45.0% versus 29.2%) (Mahjoub et al., 2024). For adolescents aged

15–19 years, national data showed overweight rates of 17.4% in boys and 20.7% in girls, and obesity rates of 4.1% and 4.4%, respectively (Aounallah-Skhiri et al., 2008). These figures illustrate the country's rapid nutrition transition and the need to examine how the school food environment shapes dietary habits during childhood and adolescence. The evidence associates excess weight with prandial hyperphagia, breakfast skipping, frequent eating while watching television, prolonged screen time, insufficient extracurricular physical activity and parental obesity. Early abdominal adiposity and metabolic syndrome, including hypertension, insulin resistance and dyslipidemia, have also been documented among Tunisian children and adolescents with obesity (Jamoussi et al., 2012). These determinants show that food choices interact with family practices, physical activity, the wider food environment and socioeconomic conditions.

Tunisia also faces a double burden of malnutrition: overweight and diet-related non-communicable disease risks coexist with undernutrition, anaemia and other micronutrient deficiencies. Although nationally comparable evidence for the exact 9–18-year SchoolMedDiet age range remains fragmented, the WHO nutrition profile indicates persistent anaemia in younger children and women.

The national Strategic Plan for Food and Nutrition of Children aged 0–18 years accordingly addresses the prevention, early detection and management of all forms of malnutrition (WHO, 2026; Ministry of Health and UNICEF Tunisia, 2026). The SchoolMedDiet needs assessment should therefore consider dietary diversity, meal regularity, iron-rich foods, fruit and vegetable intake, breakfast consumption and household food access, alongside anthropometric indicators and regional, gender and socioeconomic inequalities.

The Child Feeding and Nutrition Strategic Plan for children aged 0–18 years targets the double burden of malnutrition, including iron deficiency and anaemia alongside overweight, and includes measures related to school canteens and guidance for health professionals. This policy direction is consistent with the view of school feeding as a nutrition intervention, an education-support mechanism and an instrument of social protection. The Tunisian school feeding program mainly serves pupils in public schools, particularly in disadvantaged and rural areas, through school canteens and boarding facilities. Depending on infrastructure and operating arrangements, provision may take the form of a cooked meal or a simpler cold meal

or snack. Beyond relieving short-term hunger, the program seeks to support attendance and retention, improve conditions for learning and provide a safe, balanced meal.

The nutritional value of school feeding depends on deliberate menu planning rather than food provision alone. International guidance recommends translating age-specific energy and nutrient requirements into menu standards, appropriate portions and diversified food-group combinations, while considering acceptability, food safety, cost and local availability (FAO and WFP, 2020). Menu-planning experience also shows that school meals can supply not only energy and protein but critical micronutrients such as iron, iodine and vitamin A, while locally sourced nutrient-rich foods can connect nutrition objectives with more sustainable food systems (Fernandes et al., 2016). SchoolMedDiet will build on this approach by promoting culturally acceptable Mediterranean-style school meals based on vegetables and fruit, legumes, cereals, olive oil and other locally appropriate foods, formulated to cover the age-appropriate share of daily nutritional requirements expected from a school meal. Governance is led by the Ministry of Education through the Office of School Services (Office des œuvres scolaires, OOESCO), a public administrative body created by Government Decree No. 2016-664. OOESCO is responsible for operating and developing school canteens and boarding facilities, catering quality, equipment and infrastructure, staff capacity-building and coordination on hygiene. Its central Directorate of Accommodation and School Canteens is complemented by territorial school-services units. Regional Education Commissariats and school administrations contribute to implementation, financial and logistical management and day-to-day delivery. OOESCO's administrative council includes representatives of several ministries, including Health, Social Affairs, Transport, Youth and Sports, and Women and Children, providing a formal basis for multisectoral coordination (Government of Tunisia, 2016).

The National Strategy for the Prevention and Control of Obesity, led by the Ministry of Health and the National Institute of Nutrition and Food Technology with WHO support, promotes healthier diets, physical activity and early detection. Existing recommendations also stress family-centred interventions, nutrition education in schools and reduced sedentary behavior. At operational level, however, the school feeding system remains strongly centralized, and coordination across nutrition, education, procurement, agriculture and local actors can be difficult. Purchasing procedures and infrastructure constraints can also restrict flexible menu

planning and the participation of small local producers. The national Strategic Plan for Food and Nutrition of Children 2024–2030 provides a timely framework by prioritizing healthier school food environments, nutrition education, early screening, and stronger institutional, legal, monitoring and governance mechanisms (Ministry of Health and UNICEF Tunisia, 2026).

SchoolMedDiet is particularly relevant because it can connect these national priorities with school-level participation and bring education, health, families and food- system actors into a shared process. The Tunisian Living Lab can therefore address the full spectrum of malnutrition while adapting Mediterranean-diet activities to differences in school infrastructure and territorial context.

Implications for Living Labs: The Tunisian evidence highlights the need for the Living Lab methodology to adopt a multidimensional and context-sensitive approach that addresses both excess weight and the wider double burden of malnutrition. The needs assessment should therefore consider dietary diversity, breakfast and meal patterns, fruit and vegetable and iron-rich food consumption, physical activity, sedentary and screen-related behaviors, household food access, and relevant socioeconomic, gender and regional inequalities.

6.2.4. Baseline information for Morocco

Morocco is a North African country with Mediterranean climate and a population of over 36 million. Evidence suggests that the phenomenon of overweight and obesity is increasing in Moroccan society. The dietary transition in Morocco is characterized by a shift from a traditional diet based on cereals and legumes to a diet composed of more animal products and tending to be excessive in relation to the energy needs of a sedentary life. Overweight and obesity, generally considered risk factors for noncommunicable diseases (NCDs), also represent a public health problem in Mediterranean countries. This is the case in Morocco, where excess weight affects both children and adults nationwide. According to the latest Ministry of Health survey (2019 - 2020), women with overweight and obesity accounted for 29.2% and 28.4%, respectively, or 57.6% excess weight. This nutritional transition is associated with several factors including the country's economic development, the improvement of health services and the development of other sectors, such as agriculture, education, the agri-food industry and other socioeconomic services. It is also closely associated with broader

processes of globalization, urbanization, and evolving lifestyle patterns (Manoussi et al. 2025). In a research study in Faz, Morocco the prevalence of overweight in teenagers from 12-18 years old was 7.29% and that of obesity was 3.41%. This result is consistent with those of surveys in other Moroccan cities (El-Kabbaoui et al. 2018). In another study performed in Beni Mellal city (Morocco) the prevalence of overweight among school-aged children was 12.40% and that of obesity was 5.20%. Overweight and obesity were statistically associated with gender, skipping breakfast and eating cake, pastry and biscuits 1 to 3 times per week and 4 or more times a week. This study revealed that prevalence of overweight/obesity among school-aged children in Beni Mellal city was high (Kaoutar et al. 2021). Thus, promoting healthy dietary practices, particularly improving fruit and vegetable intake is essential to reduce the burden of overweight and obesity. Furthermore, it is important to strengthen nutrition education about avoiding junk food consumption and encouraging regular physical activity.

In recent studies, adherence to the MD in this population was very low, with nearly 53% having poor adherence and only 7.7% reporting optimal adherence. Multinomial regression analyses showed that poor adherence is correlated with female gender ($p=0.042$), low paternal education ($p=0.004$), limited number of meals ($p=0.006$), advanced age ($p=0.005$), and inadequate sleep duration ($p=0.027$). In contrast, better adherence appears to be correlated with a high number of meals per day ($p<0.001$) and a better socio-professional class of the father ($p<0.001$) (Belaoufi et al. 2024).

Implications for Living Labs: The Moroccan evidence highlights the need for the Living Lab methodology to address the interrelated dietary, behavioral and socioeconomic factors associated with the ongoing nutrition transition. The needs assessment should consider Mediterranean Diet adherence, breakfast and meal patterns, fruit and vegetable intake, consumption of energy-dense and less healthy foods, physical activity, sedentary behaviors and sleep, alongside relevant demographic and socioeconomic determinants, including parental education and socioeconomic circumstances.

6.2.5 Conclusions

Taken together, the baseline evidence from Malta, Greece, Tunisia and Morocco demonstrates both shared challenges and important contextual differences that should be reflected in the SchoolMedDiet Living Lab methodology. Across all four countries, the findings support moving

beyond Mediterranean Diet adherence as a stand-alone measure towards a multidimensional assessment of students' dietary behaviors and the wider determinants of food choice. Common dimensions include breakfast and meal patterns, fruit and vegetable consumption, consumption of less healthy or highly processed foods, physical activity and sedentary behaviors, as well as family and socioeconomic influences. These dimensions can therefore provide a common basis for the needs assessment across the four Living Labs. At the same time, country-specific evidence indicates the need for local adaptation. Malta warrants particular consideration of sugary drinks and sweets, sedentary behaviors and nutrition literacy; Greece highlights family meals, screen-related eating, fast-food and ultra-processed food consumption and wider family and school influences; Tunisia requires particular attention to the double burden of malnutrition, dietary diversity, micronutrient-related considerations, household food access and the school-feeding environment; while Morocco highlights Mediterranean Diet adherence, dietary transition, breakfast and meal patterns, physical activity, sleep and socioeconomic determinants. The common methodological framework should therefore retain a core set of comparable dietary, behavioral and contextual dimensions across countries, complemented by country-specific measures and qualitative exploration. This approach will enable the needs assessment, stakeholder engagement and subsequent co-design of Living Lab activities to remain methodologically coherent across SchoolMedDiet while being responsive to the nutritional, behavioral, socioeconomic and institutional context of each participating country.

Way Forward:

These findings suggest that the SchoolMedDiet needs assessment should extend beyond dietary intake to capture the broader behavioral, contextual, and socioeconomic factors shaping students' food choices and lifestyles. In particular, attention should be given to eating-related behaviors such as breakfast habits, family meals, screen-related eating, and food consumption outside the home, alongside relevant socioeconomic and family-level influences. These dimensions can help identify priority needs and behavioral barriers, inform the selection and involvement of relevant stakeholders, including students, families, schools, and other actors within the food environment, and guide the design of Living Lab activities that are responsive to the everyday contexts in which dietary behaviors occur. Evidence

relating specifically to the SchoolMedDiet target age group, including complementary findings from Greece on dietary behaviors and processed food consumption, may further support the tailoring of the needs assessment and Living Lab activities to the characteristics and experiences of the target population.

The country context highlights several dimensions that should be incorporated into the Living Lab methodology, particularly socioeconomic inequalities, sociocultural practices, differences in knowledge and awareness, and variations in stakeholder engagement. The needs assessment should therefore examine how these factors influence behaviors, perceived needs, and barriers to change across different population groups. Stakeholder involvement should ensure representation of relevant community, institutional, and professional actors, with particular attention to groups that may otherwise be underrepresented. Finally, Living Lab activities should be adapted to local cultural, socioeconomic, and geographical conditions, using accessible and context-sensitive engagement and communication approaches.

Although overweight and obesity prevalence forms an important part of the baseline context across participating countries, anthropometric outcomes are not proposed as core outcome measures across all Living Labs. The relatively short duration of the intervention may be insufficient to detect meaningful changes in BMI or weight status, while the intervention primarily targets modifiable dietary and lifestyle behaviours that may precede changes in anthropometric outcomes. Therefore, the common evaluation framework prioritizes Mediterranean Diet adherence, dietary behaviours, physical activity and sedentary behaviours, while anthropometric measures, including height, weight and BMI, may be included as additional country-specific measures where appropriate and feasible.

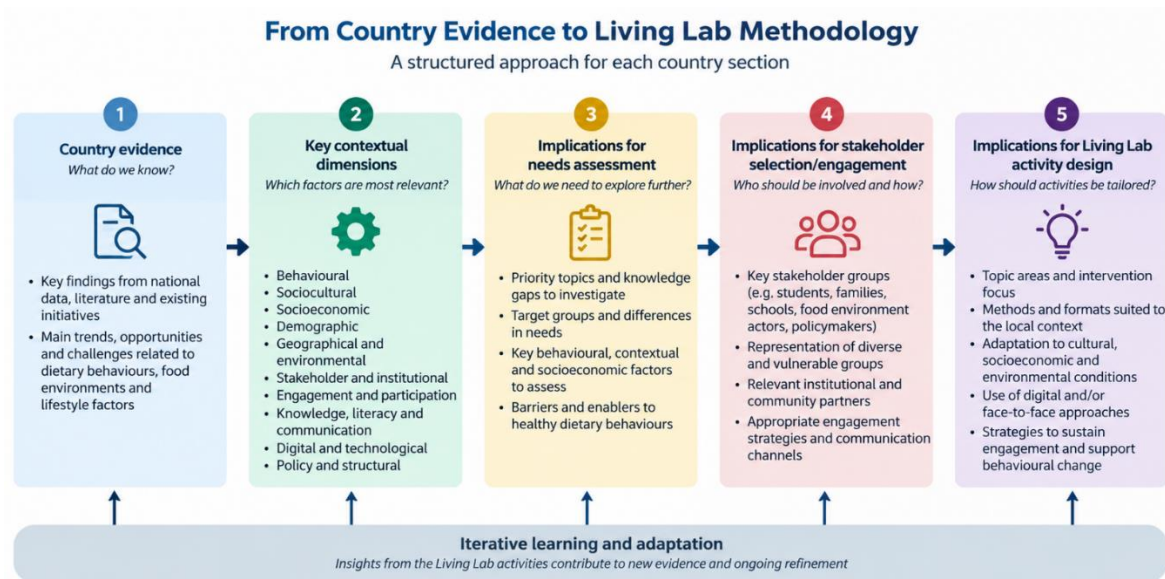


Figure 3. A structured approach from country evidence to Living Lab Methodology.

Table 1. Common set of dimensions across the 4 countries influencing participation or the adoption of the activities/interventions,

Relevant Dimensions	Specific Implications
<i>Behavioral</i>	<i>Behaviors, routines, habits, attitudes, barriers, awareness levels</i>
<i>Sociocultural</i>	<i>Beliefs, traditions, household practices, social relationships and community dynamics</i>
<i>Socioeconomic</i>	<i>Income, affordability, employment, education, socioeconomic inequalities, access to resources, other forms of vulnerability or disadvantage</i>
<i>Demographic</i>	<i>Age, gender, household composition, migration background or other relevant population characteristics</i>
<i>Geographical</i>	<i>Urban/rural differences, regional disparities, accessibility, mobility, infrastructure, specific climate or environmental conditions</i>
<i>Stakeholder and institutional</i>	<i>Institutional structures, stakeholders' groups, existing networks, governance arrangements, community organizations and their interrelationships</i>
<i>Engagement and Participation</i>	<i>Previous experience with participatory activities, willingness to participate, trust in researchers, barriers to participation and engagement, strategies to reach underrepresented groups</i>
<i>Knowledge, literacy and communication</i>	<i>Levels of knowledge and awareness on MD, language considerations, information sources, communication preferences</i>

<i>Digital and Technological</i>	<i>Digital access, skills, use of relevant technologies, digital inequalities, suitability of digital versus face-to-face Living Lab activities</i>
<i>Policy and Structural</i>	<i>National or local policies, regulations, strategies, service structures that may enable or constrain Living Lab activities</i>

6.3. Methodological considerations

General Concepts and Approach

The SchoolMedDiet Living Labs are based on a common methodological framework that ensures consistency across the participating countries, while allowing sufficient flexibility to reflect differences in school settings, age groups, cultural contexts and local needs. The methodology follows a participatory and iterative approach, in which students, parents, educators and other relevant stakeholders are actively involved in identifying needs, defining priorities and co-creating appropriate activities and solutions. Four national Living Labs will be established, reaching over 1,000 students, 150 educators, and 100 families.

Based on the experience and methodological approaches identified in previous projects and studies, such as PRIMA projects and COSI reports, the following elements were considered to define the general roughly proposed framework: initial needs assessment, adaptation workshops and stakeholder mapping, analysis of adaptation workshop results, focus groups and selection/adaptation of activities, intervention implementation, intervention evaluation and feedback, whilst also allowing local adjustments.

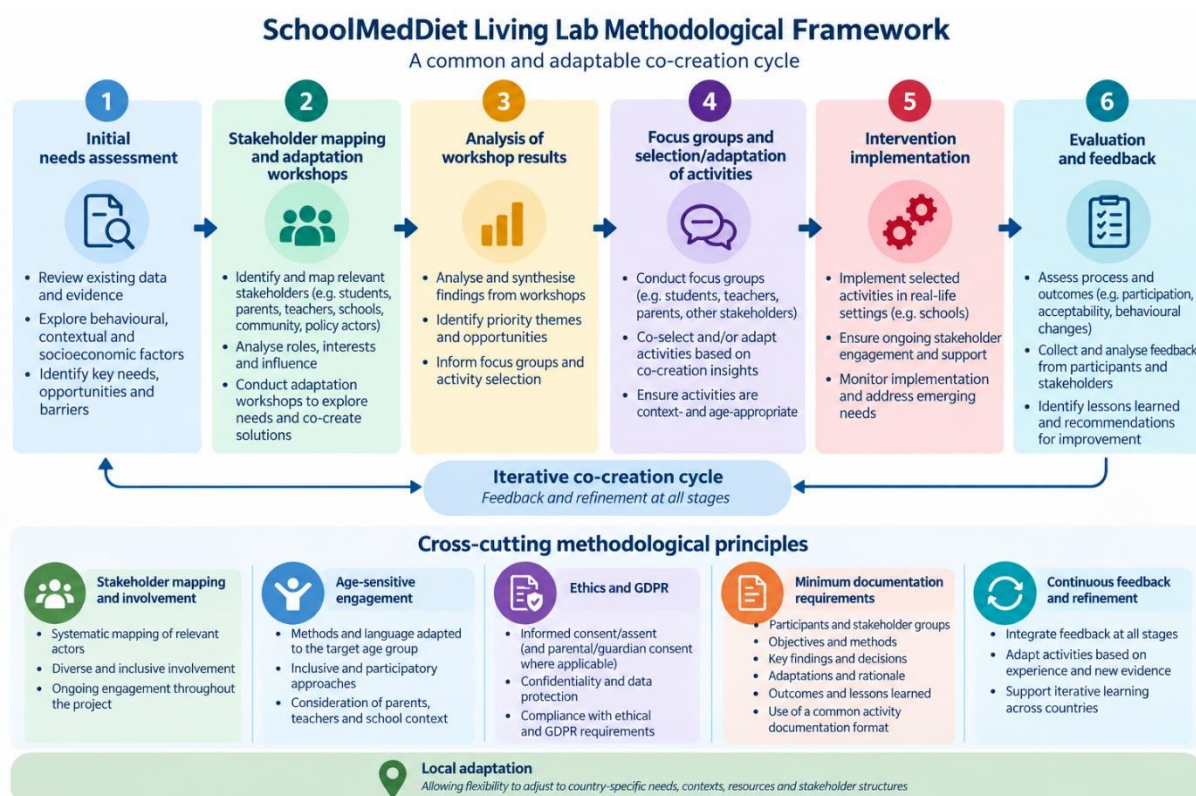


Figure 4. SchoolMedDiet Living Lab Methodological Framework.

The SchoolMedDiet evaluation framework will distinguish between three complementary levels of indicators:

- **Primary outcome indicators:** which will be carried out in all LL countries, focusing on Mediterranean Diet adherence assessment among participating students and their parents.
- **Secondary outcome indicators:** including selected dietary behaviors, physical activity and/or sedentary behavior, food-related attitudes and beliefs, and relevant characteristics of the school food environment. The secondary outcome indicators may vary according to each LLs context.
- **Implementation and process indicators:** including participation, acceptability, feasibility, implementation fidelity, stakeholder involvement and satisfaction.

The impact evaluation will follow a pre-post design, with harmonized measurements collected before and after the Living Lab intervention. The common evaluation framework will define the minimum dataset to be collected across all countries, while allowing a limited number of

optional country-specific measures where these are justified by local context. All common measures, timing of assessment, coding procedures and outcome definitions will be documented in a shared data dictionary and aligned with WP5.

Common core and adaptable components

To ensure methodological harmonization while respecting cultural and contextual differences, the Living Lab intervention will distinguish between core components and adaptable components.

Core components will include:

- the overall intervention objectives
- the minimum set of primary and secondary outcomes and process indicators
- the common assessment schedule (timeline) and data-collection procedures
- minimum requirements for intervention exposure and documentation
- common principles for stakeholder engagement and co-creation
- implementation fidelity monitoring
- ethical, food safety and GDPR requirements
- the common reporting and data-management procedures

Adaptable components may include:

- examples of foods, recipes and traditional dishes
- cultural references
- specific sustainability and food-waste activities
- locally relevant school-food challenges
- formats and delivery approaches adapted to age
- appropriate digital and educational materials
- additional measures including but not limited to height, weight, BMI

Age-appropriate strategies

Given the developmental differences across the SchoolMedDiet target population (9–18 years), a differentiated age-sensitive approach is proposed for the three predefined age

groups (9–11, 12–14 and 15–18 years). While a common methodological core should be retained to support consistency and comparability, the wording, complexity and administration of measures, as well as the methods used for qualitative engagement and co-creation, should be adapted to the cognitive, social and behavioral characteristics of each age group. Behavioral nudging techniques (e.g. choice architecture in the canteen), explicit links to curriculum and extracurricular activities are important elements in the methodology. Younger students may particularly benefit from playful, gamified, experiential and collaborative activities, including games, taste tests (taking into consideration students that suffer from food allergies), food diaries, storytelling activities and other hands-on learning approaches. For older adolescents, these approaches could be complemented by more informative, participatory and autonomy-oriented activities.

Table 2. Components of age-sensitive approach.

Component	Application
Common Core	Key constructs measured across all three age groups: dietary behaviors, meal patterns, including Mediterranean Diet-related behaviors, selected lifestyle factors
Age-adapted administration	Adapted wording, response scales, questionnaire length, examples and level of complexity to 9–11, 12–14 and 15–18 years
Age-specific measures	Include additional constructs where developmentally relevant, e.g. stronger family-context measures at 9–11-year-olds and greater autonomy, purchasing and digital influences at 15–18 year-olds
Focus groups	Use age-specific focus groups to explore behaviors, barriers, needs and contextual influences that quantitative measures may not adequately capture

Living Lab co-creation	Adapt participatory techniques and the level of decision-making responsibility to each age group
Triangulation	Interpret quantitative measures together with focus-group and Living Lab findings to identify age-specific needs and intervention priorities

Table 3. Proposed age-sensitive approach per age group.

Dimension	9–11 years	12–14 years	15–18 years
General engagement characteristics	Concrete, activity-based and highly structured; shorter attention span; greater need for adult facilitation	Increasing capacity for reflection and discussion; strong influence of peers and social environment	Greater autonomy and capacity for abstract thinking, critical reflection and independent decision-making
Language and instructions	Simple, concrete language; short questions; one concept at a time; examples and visual prompts	Clear but moderately detailed language; familiar terminology; brief explanations of more complex concepts	More detailed and nuanced language; terminology can approach that used with adults, with explanations where necessary
Questionnaire design	Short questionnaires; limited response options; visual or	Short-to-moderate length; Likert-type scales can increasingly be used; examples	More comprehensive self-report measures and multi-item scales can be appropriate

	pictorial scales where appropriate	may support comprehension	
Dietary behavior measures	Focus on easily recalled behaviors: breakfast, fruit/vegetable consumption, snacks, drinks, school meals and family meals.	Include food frequency, meal patterns, snacking, eating outside the home and screen-related eating	More detailed dietary patterns, food choices, eating contexts, autonomy in food purchasing/preparation and Mediterranean Diet adherence
Knowledge measures	Simple recognition or identification activities; food grouping; basic healthy-eating concepts	Combination of knowledge questions and practical food-choice scenarios	More complex nutrition and food-system knowledge, interpretation of information and application to real-life choices
Attitudes and perceptions	Preferences, likes/dislikes and simple perceived barriers using concrete examples	Attitudes, perceived barriers/enablers, peer influences, perceived norms and self-efficacy	Motivations, attitudes, perceived behavioral control, social norms, sustainability considerations and barriers to behavior change
Food environment	Home and school as primary environments; availability and accessibility of foods	Home, school, peer and neighborhood food environments become increasingly relevant	Broader food environment, including food outlets, purchasing decisions, digital food environments and

			eating outside the home
Family dimension	Strong emphasis on parents/caregivers and household practices	Family remains important, alongside increasing peer influence and personal autonomy	Assess family influence alongside greater independence in food selection, purchasing and preparation
Digital/screen-related factors	Basic screen use and eating while using screens	Social media, screen-related eating and exposure to digital food content	Social media, digital marketing, food-delivery platforms and other digital influences on food choices, where relevant
Co-creation methods	Drawing, food cards, storytelling, games, voting with stickers and simple idea-generation activities	Ranking, mapping, scenario exercises, group brainstorming and collaborative activity design	Workshops, problem-solving, prioritization, design exercises and greater involvement in intervention decision-making
Role in decision-making	Express preferences, experiences and needs; choose between understandable alternatives	Contribute ideas, identify barriers and help adapt proposed activities	More active co-design role, including proposing, assessing and refining activities and implementation approaches
Recommended session characteristics	Short, interactive sessions with regular changes in activity	Moderate-duration sessions combining discussion and interaction	Longer structured sessions may be feasible, while

			maintaining participatory methods
Adult involvement	Higher level of facilitation and safeguarding; parental/caregiver input particularly relevant	Facilitation remains important but should allow increasing independent expression	Facilitation should support meaningful youth autonomy and avoid unnecessary adult direction

6.4. Detailed timeline and phase description

M1-12: Methodology and Living Lab Design

The first year of the project lays the foundation for the implementation of the SchoolMedDiet Living Labs by developing the shared methodological framework that will guide all four national LLs. The main focus is on participatory co-creation, incorporating behavioral change tools, educational materials, and stakeholder engagement approaches that are both context-sensitive and transferable. During this phase, the common KPIs, ethical protocols (e.g., data collection from children and families), and data monitoring framework will be defined to enable impact evaluation across countries. Furthermore, this phase is crucial employing local co-design workshops to fine-tune tools and approaches before deployment. Each Living Lab will be established in a specific school in each participating country, and the methodology will be customized accordingly.

During this pre-intervention stage, several activities will take place as preliminary steps for the identification of stakeholder's engagement and preparation of the Living Labs implementation to follow on months 13-24.

Preliminary activities and preparation steps during this stage include:

- ✓ Development of co-creation methodology, to be utilized across all four Living labs
- ✓ Design of engagement tools and resources
- ✓ Defining inclusion and exclusion criteria for participation in the Living lab activities

- ✓ Ethical considerations and GDPR
- ✓ Preliminary stakeholder mapping
- ✓ Local adaptation workshops

Participant Inclusion and Exclusion Criteria

(Adapted from SwitchToHealthy protocol: Calderon-Perez et al, 2024)

Inclusion: Children and parents will be eligible to participate if they meet the following criteria: (a) families from any socioeconomic status with at least one child between the age of 9 and 18 years; (b) informed consent has been signed by parents and assent by the child/adolescent; and (c) access to a mobile phone, tablet, or computer with internet access will be recorded for planning digital-tool activities; where access is limited, alternative non-digital participation routes (paper-based) should be made available, to ensure inclusive participation. Home internet access is not a condition for participation in school-based activities, as the WP4 digital tools operate offline.

Exclusion: (a) does not fall in required age group (b) does not give consent/assent

Ethics considerations and GDPR

Ethical procedures governing the implementation of the Living Lab activities will be developed and applied in coordination with Task 1.5 (Ethical Management) and in consultation with the project Ethical Advisor, to ensure consistency with the project-wide ethical framework and applicable ethical and regulatory requirements.

Ethics submissions in each of the four countries may vary, so the detailed documentation will not be referenced here. However, examples of relevant documentation depending on the activity may include:

- Information sheets
- School information sheets and consent forms
- Parental/Guardian Informed Consent and Student Assent forms

- Stakeholder informed consent form
- Institutional approvals
- Data management and storage
- Anonymization/pseudonymization, rules for photos/videos, rules for app/VR usage data and secure data storage

Preliminary Stakeholder mapping

The living lab will bring together key players **using the quadruple helix model**. Where appropriate, this stakeholder mapping could also include a simple ranking or prioritization exercise to capture different stakeholder perspectives, needs and priorities without complicating the Living Lab methodology.

Main stakeholders are listed below, but the list is non-exhaustive. Additional stakeholders may be included if relevant to the local scenario.

- **Students:** inclusion of vulnerable categories, gender representation, age groups etc.
- **Parents or guardians:** active co-creators
- **Health professionals and educators:** Nutritionists, dietitians, teachers/ headteachers
- **Food Service Staff:** school chefs (where applicable), and procurement managers
- **External Partners:** Local farmers, community organizations
- **Researchers, project-coordinators:** bringing together the main concepts and methodological framework
- **Representatives of state institutions:** Municipalities, local authorities

Stakeholder mapping should be conducted at the initial stage of each Living Lab and reviewed throughout implementation as necessary. The mapping exercise should identify relevant stakeholder groups, their roles, interests and influence, their potential contribution to the Living Lab, and the most appropriate mechanisms and stages for their engagement. A common stakeholder mapping template is proposed to support consistency across countries,

while allowing each Living Lab to include additional stakeholders reflecting its national, local and school-level context.

A simple stakeholder mapping template (Annex I) will be utilized during the Living Labs Implementation and for future links with WP6 (Piloting Public Food Procurement & Policy Uptake for the Mediterranean Diet).

Local Adaptation workshops (M9-12)

This phase includes national adaptation, translation and stakeholder validation of the common methodology and the main non-digital tools and resources, following an iterative process. In this context, validation refers to confirming contextual relevance, usability and feasibility, rather than evaluating intervention effectiveness. It will also encompass the analysis of the data and prepares the transition to the Living Lab implementation, to follow in the year 2 of the project (M13-M24). A short WP4 session of approximately 30 minutes will be included in each adaptation workshop, where students and educators will be shown storyboards, art direction and sample dialogue from the Food Assistant on a standard laptop or tablet. No VR equipment, installation or software testing is involved at this stage. The purpose of the addition of this component is age-appropriate content adaptation: vocabulary and reading level for each age group, comprehension of the key messages, and reactions to the visual universe. Results are expected to feed the subsequent analysis and inform the content of the digital tools that follows in WP4. Each national Living Lab will be anchored in one primary pilot school, in line with T3.1. To ensure representation of the three predefined age groups (9–11, 12–14 and 15–18 years), additional associated schools may participate in preparatory focus groups and selected Living Lab activities where the primary pilot school does not cover all age bands. Depending on the local scenario and based on cognitive development, preference will be given to students in the 9-11 age group. The specific tools utilized are part of T2.2 (Design of engagement tools and Resources).

M13-M24: Living Lab Implementation

The second year of the project brings the SchoolMedDiet vision into action by launching and operating Living Labs in selected schools in each participating country. Each Living Lab will serve as a participatory testbed where children, educators, parents, and local actors collaboratively design and trial educational and behavioral change interventions that promote the Mediterranean diet and sustainable food habits. Interventions may include redesigned school meals, interactive classroom activities, food heritage workshops, school gardens, or family-focused events. This phase of the project particularly emphasized on ownership, iterative refinement, and active documentation of challenges and successes. Importantly, digital tools such as the chatbot-integrated AI-based Food Assistant will be piloted and embedded into Living Lab activities during this phase. For the design of the MD diet adherence, PA measures and MD knowledge tools and any related measures, the activities will focus on face validation through children and adult participation. Participants will include children for all the three age groups, parents and teachers. For the content validation, the tools will be sent directly to 3-5 professionals in each country for feedback and suggestions relating to: clarity, ease of understanding, readability, and completion time, spelling/grammar errors, sequence and layout of questions, technical relevance and accuracy, consistency between the English and locally translated versions.

Activities during this stage include:

- ✓ Analysis of the adaptation workshop findings
- ✓ Piloting and validation of the tools
- ✓ Setup and Stakeholder mobilization
- ✓ Student interventions
- ✓ Family and Community engagement
- ✓ Compliance with Ethical considerations and GDPR (as per T 1.5)

Student Interventions

This phase is part of the Design and Develop pre-intervention and includes quantitative and qualitative methods (mini surveys, focus groups and WorldCafe workshops).

Quantitative mini survey:

A short cross-sectional baseline quantitative study for each Living Lab may be considered, covering some of the following aspects: school meals/canteen context, barriers to healthier food choices, local foods availability, affordability and accessibility, food environment, acceptance of digital tools, food literacy, amount of money spent on purchasing food, frequency of eating outside home, physical activity/lifestyle aspects and needs for educational material.

Qualitative study:

Includes the selection/adaptation of activities, reflection and refining through focus groups and/or World Café workshops, and use of the results to inform the prototype design and Living Lab educational activities. Additionally, creative STEAM approaches may be utilized such as tinkering workshop, STEAM activity, to provide flexibility and cater for the different local scenarios in the Living Labs.

The deliverable will use a common qualitative methodology, semi-structured questions and methodological alignment across countries, following qualitative methodology training, whilst cultural adaptation will take place for each country. Deliverable 2.2. provides the starting materials which are adapted during months 9-12 in the adaptation workshops and refined during these focus groups in this phase.

The focus groups and/or World Café workshops will be age-specific, with 6–8 students per group and representation of the three predefined age groups (9–11, 12–14 and 15–18 years). Where the primary pilot school does not cover all three age groups, participants may be recruited from additional associated schools.

The focus groups will be audio-recorded, transcribed and translated to English, where needed, subject to the applicable ethics approvals, informed consent/assent procedures and the data-management provisions established under T1.5 and D1.4. In each focus group the following phases will be adopted: introduction, context and objective, preparation phase, implementation phase, wrap-up and next steps.

Outputs:

- Thematic analysis with specific feedback collected.
- Quantitative feedback analysis through the use of feedback forms, where needed.

- Development of activities to be used in the LL implementation phase: such as Mediterranean plate and portion size cards, food-group cards, household measures, portion-size categories and age-appropriate examples. Where feasible, these tools could also support more consistent portion-size description across countries and age groups, while remaining simple enough for use in school settings.

Focus Groups Thematics and World Café workshops:

Thematic 1: Aimed to explore perceptions of healthy, sustainable nutrition and the Mediterranean Diet and sustainability, school and home practices, barriers to adherence, suggestions for educational material/campaigns and activities, co-creation/validation of project outputs. Furthermore, this focus group will explore menu choices and food waste reduction suggestions, with a spotlight on country-specific food in focus groups.

Materials needed: a quiet designated room for in-person focus groups; computers for online focus groups; audio recording equipment

Group Size: 6-8 students per age group

Output: feedback and suggestions for intervention methodology including educational campaigns and handbooks, revised recipes and menu cycles

Thematic 2: Feedback and Prototype testing: At this stage, the Living Lab activities will focus on identifying user needs, expectations and usability considerations, as well as gathering user perspectives and feedback related to the AI Food Assistant and VR experiences. This approach enables the digital tools to be co-developed with users and progressively refined through feedback from students. Age adaptation of the digital tools is delivered through the language layer and the difficulty of the content, not through separate VR experiences per group. This focus group addresses user feedback, acceptability and refinement of the digital tools. Feedback collected will inform adjustments in wording, difficulty of questions, language versions, sequencing and configuration. The scope of the Living Lab methodology at this stage is therefore limited to user engagement, needs identification, co-creation and the generation of user-informed recommendations.

Materials needed: a quiet designated room for in-person focus groups; computers for online focus groups; audio-recording equipment

Group Size: 6-8 students per age group

Output: user feedback on digital tools (VR modules, AI Food Assistant app).

A Living Lab didactic template with the main components for the Living Lab activities is presented as Annex II. The template is part of the minimum documentation requirements for any activity, outlining how activities should be planned, documented, implemented and reviewed. This is in line with the common shared methodology between the four Living Labs, yet adaptable. The template includes the activity title, target age group, objective, learning outcomes, duration, place of implementation, stakeholders involved, required materials, link with the Mediterranean Diet, link with sustainability/local food systems, possible food safety/allergen requirements, ethics/GDPR requirements, data to be collected (where applicable), links to relevant T2.3 indicators, and lessons learned. For activities involving food preparation, tasting or recipes, a simple food safety and allergen checklist should be included, covering allergen identification/declaration, parental information, hygiene, safe food handling, supervision and compliance with local school rules (Annex III - Food Safety and Allergen checklist for Living Lab activities).

Common elements across countries include: activity objectives, target group, rationale, procedure, age adaptation, stakeholder involvement, ethics/safety checks, evaluation and documentation. Locally adaptable elements include: delivery format, examples, materials, duration, stakeholder involvement, cultural adaptations and specific implementation arrangements.

The activities organized for the Living Labs implementation follow the age-appropriate measures as presented in the previous section. Specifically, for younger students playful, experiential and collaborative activities will be considered, including games, taste tests, food diaries, storytelling activities and other hands-on learning approaches.

The Implementation of the 3-month Intervention Study

Recommendations for Living Labs Intervention activities include (but may be modified depending on focus group results in the pre-intervention phase):

- ✓ Activity 1: Experiential cooking, recipe-based activities could be linked to local/seasonal foods, traditional dishes, family recipes and local gastronomic identity in Greece, Malta, Tunisia and Morocco. Activities based on local and traditional foods and recipes and take-home messages for parents; Mediterranean plate-at-home cards, food-group cards, household measures, portion-size categories and age-appropriate examples.
- ✓ Activity 2: Age-appropriate quizzes on eco-labelling, carbon footprint activities, water footprint, sensory activities and taste tests
- ✓ Activity 3: The integration of sustainability, food waste challenge and the school food environment. Practical handbook of activities and materials for schools including school activities related to zero food waste, food reuse, local garden visits and ecological footprint.
- ✓ Activity 4: Digital or app-based feedback activity
- ✓ Activity 5: Redesigned school meals, interactive classroom activities, food heritage workshops, school gardens, or family-focused events.

Family and Community Engagement

Similar activities and focus groups (as described above) will be implemented for teachers, parents, and relevant stakeholders as identified per Living Lab.

For older adolescents, these approaches could be complemented by more informative, participatory and autonomy-oriented activities. This phase starts in Month 16 until Month 24.

The duration of the intervention (both for students and family/community) will be a minimum of 12 weeks.

M21-36: School-based Evaluation of Intervention and Digital tools

This phase reflects the post-intervention period outcome measures, which will be measured a second time, and where impact evaluation and cross-country analysis will be performed and linked to WP5. The complete timeline of the phases is summarized in Figure 5.

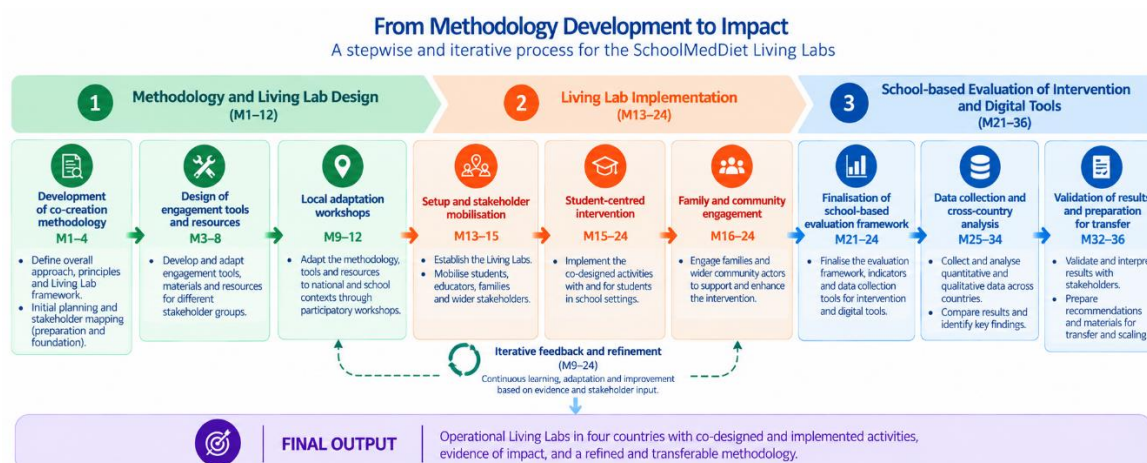


Figure 5. Schematic representation of the Living Lab Methodology and Timeline for SchoolMedDiet.

7. Success measures

The success of the SchoolMedDiet Living Labs will be assessed through a set of project-level and Living Lab-specific Key Performance Indicators (KPIs) that reflect the establishment and operationalization of the Living Labs, stakeholder participation and engagement, uptake of project activities and tools, and contribution to the intended project outcomes. The success measures and KPIs considered most relevant to the Living Lab methodology are summarized below.

Table 4. Success measures and KPIs relevant to the Methodology of the Living Labs.

Objective	Related KPI	KPI category	Utilisation of the indicator in the project	Quantification
Objective 1: Establish national Living Labs in four countries	KPI 5: Number of beneficiaries from vulnerable or marginalized groups	Societal	Among the beneficiaries of the project will be women and young people aged 15 - 18	≥ 500
	KPI 6: Number of social innovations	Societal	The Living Labs function as social innovations that involve co-creation between youth educators, and local authorities	1
	KPI 12: Total number of individuals trained through structured sessions	Scientific	Teachers, families, and school administrators will be engaged in structured training activities via the Living Labs	≥ 100
	Custom KPI 1: Number of national Living Labs	Societal	Number of national Living Labs co created and operationalized	4

Objective 2: Develop and deploy experiential and digital education tools	Custom KPI 2: Number of students and educators actively using digital tools	Societal	Number of students and educators actively using digital tools, as recorded via logs and feedback surveys	≥ 1,000
	Custom KPI 5: Percentage increase in MD adherence	Societal	Percentage increase in MD adherence among student participants, measured baseline to project end	20%

8. Composition and Governance of the living Labs

Each participating school will establish a SchoolMedDiet Living Lab using a bottom-up approach where all stakeholders are involved in the intervention design to ensure the commitment towards shared values, such as social and environmental justice (Galway et al, 2021). The LL will function through a small decision-making group with a wider network of students, staff, families and relevant stakeholders. The structure should be broad enough to include the people affected by school-food decisions, but small enough to meet and act without creating an additional administrative burden. Participation must provide a clear route to influence decisions, not only an invitation to attend activities (Leask et al., 2019; Lim et al., 2023).

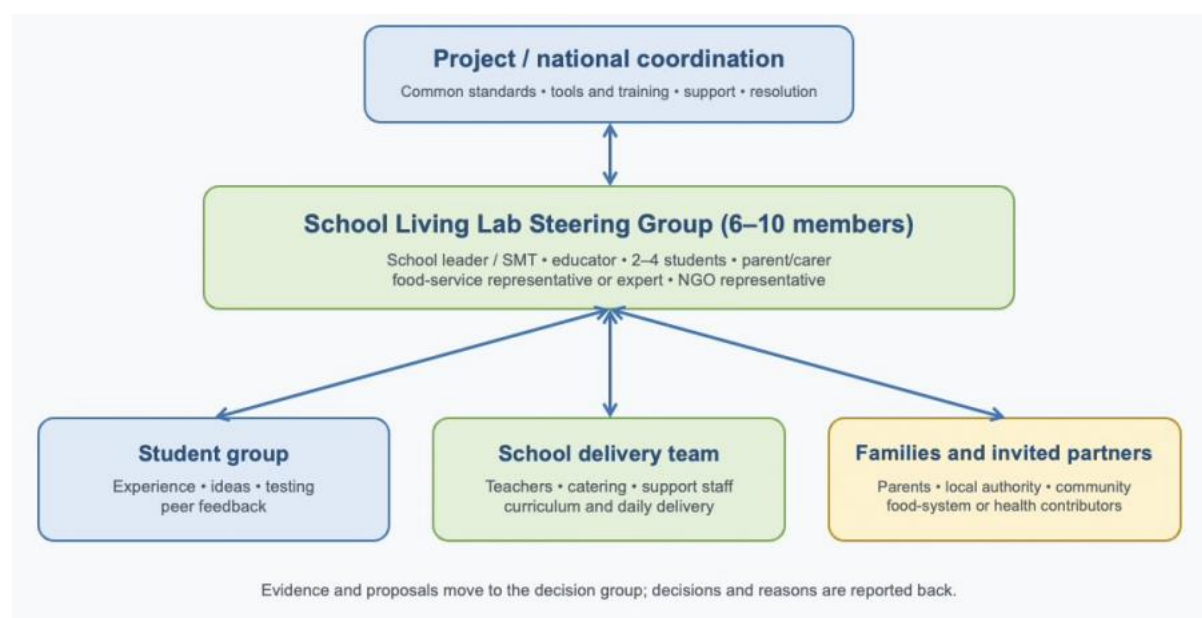


Figure 6. Governance structure for a SchoolMedDiet Living Lab.

8.1. Composition at school level

The school should appoint a core Steering Group of approximately 6-10 members. The group remains in place for the Living Lab cycle and is supported by a wider participant network that joins activities when its knowledge, authority or practical role is needed. The recommended core membership is:

- School's Senior Management Team (SMT) or authorized delegate - chairs the group, confirms the school mandate and resolves matters requiring formal school authority.
- School coordinator or educator - usually a teacher or curriculum lead; organizes meetings, maintains the records and links activities to the timetable and curriculum.
- Two to four student representatives - bring student experience, help define priorities, test proposals and communicate with peers. Representation should cover relevant age groups and avoid reliance on a single student voice.
- Parent or carer representative or parent group representative - advises on home routines, accessibility, cultural fit and family communication.
- Mediterranean Food-service or catering representative or expert - tests operational feasibility, procurement implications, food safety, preparation requirements and staff workload.
- NGO representative - where relevant/available - supports the co-creation process, evidence use, ethics, implementation records and connection with the wider community
- Project member to assist and guide

Local-authority staff, health or nutrition professionals, community organizations, producers, procurement staff and other specialists should be invited when the topic requires their expertise or decision-making authority. Teachers, non-teaching staff, cooks, cleaners and caretakers should also be included where their daily work affects delivery. They do not all need permanent seats. This distinction between a core group and invited contributors helps make the model workable.

Membership should reflect the school population depending on culture, local context, gender, age, socioeconomic, cultural and linguistic diversity, disability and groups at risk of exclusion. Students should receive accessible information and preparation before meetings, be able to contribute in more than one way, and be told what changed, what did not change and why.

These arrangements put the principles of space, voice, audience and influence into practice (Lundy, 2007).

8.2. Governance and decision making

Prospective members of the Living Lab Steering Group will be identified during the stakeholder-mapping and local-adaptation activities in WP2. The Group will be formally established during T3.1 (M13–M15), before the active intervention phase. Once established, the school-based Steering Group leads local planning and day-to-day decision-making, while the national project partners provide methodological guidance, training, coordination, monitoring and support to ensure continuity and alignment with the common SchoolMedDiet framework.

Governance operates at three levels. The project or national partner provides common methods, training, ethics and data requirements, tools, and a route for conflict resolution. The SchoolMedDiet Living Lab Steering Group is the local decision body and adapts the common methodology to the school. Student groups, staff teams, families and invited stakeholders co-design and test activities, and report implementation experience to the Steering Group. The Steering Group must return decisions and reasons to those who contributed.

Legal duties, safeguarding of students and staff, food safety, research ethics, data protection and approved budget limits need to follow the legal requirements of that country. These boundaries should be explained before co-design begins so that participants know what they can contribute towards and what is non-negotiable. A member should declare any conflict of interest, particularly when a proposed supplier, product or digital service is being considered.

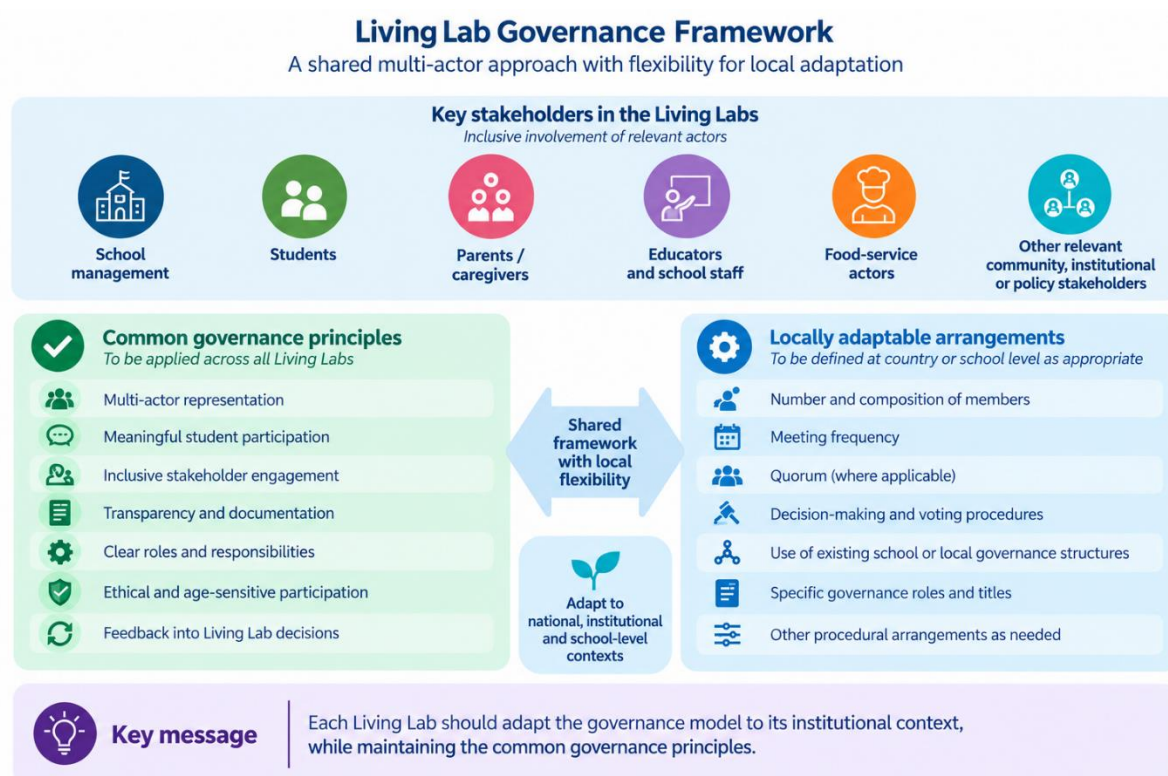


Figure 7. Living Lab Governance Framework.

8.3. Operations

The Steering Group should meet at least every semester, with a recommendation of bimonthly meetings for the first year. Four to six short meetings across one SchoolMedDiet Living Lab cycle will normally be sufficient, supplemented by activity sessions and brief written updates.

1. Authorize and organize. Confirm the mandate, appoint members, agree roles and sign a one-page Living Lab charter.
2. Co-frame and prioritize. Review student, family, staff and food-system evidence and approve the specific challenge to be addressed.
3. Co-design and approve. Review proposed activities against evidence, student priorities, feasibility, equity, ethics and food safety before piloting.
4. Co-implement: Activities planned by the LL should be implemented with multiple stakeholders working together.

5. Review and adapt. Examine participation, delivery, incidents and early results; record any change and the reason for it.
6. Co-Evaluate and hand over. As a group and with internal and external stakeholder involvement, agree how to sustain the LL, modify or stop the activity, assign future ownership and report the decision to participants and the EU project.

Only four short governance records are required: (1) the charter and membership list; (2) a roles and decision-rights sheet; (3) a combined decision and action log; and (4) an adaptation, incident and resolution log. Meeting notes should record decisions, responsible people and deadlines rather than full transcripts. This approach provides accountability while keeping the procedure proportionate to a school's human resources.

9. Conclusions

This document sets out the methodological framework for the development and implementation of the SchoolMedDiet Living Labs, providing participating partners with a common reference for planning, conducting and documenting Living Lab activities. It brings together the main methodological elements required to support a participatory and co-creative approach, including needs assessment, stakeholder mapping and engagement, adaptation workshops, focus groups, selection and adaptation of activities, implementation, evaluation, and feedback and refinement.

The methodology is intended to function as a practical guide throughout the Living Lab process, rather than as a rigid set of procedures. Partners should use the framework to inform the organization and implementation of their Living Labs and to ensure that the main methodological principles are applied consistently across participating countries. At the same time, the framework recognizes differences in national, institutional and school-level contexts and therefore allows appropriate adaptations to local needs, resources, stakeholder structures and implementation conditions.

The different methodological stages should be considered interconnected and iterative. Evidence generated through the needs assessment, together with the perspectives of students and other relevant stakeholders, should inform the co-creation and adaptation of activities. Experiences arising during implementation, evaluation and stakeholder feedback should, in turn, support further refinement where needed. Appropriate documentation of these processes and adaptations will facilitate transparency, shared learning and comparison of experiences across the Living Labs.

Overall, the framework provides a shared but adaptable methodological basis for the SchoolMedDiet Living Labs, supporting coherence across countries while preserving the flexibility required for meaningful implementation in different local settings. It should therefore be used as an ongoing reference throughout the Living Lab lifecycle, from initial planning and stakeholder engagement through implementation, evaluation and refinement.

10. References

- Aounallah-Skhiri, H., et al. (2008). Nutritional status of Tunisian adolescents. *Public Health Nutrition*, 11(12), 1306–1317. <https://doi.org/10.1017/S1368980008002693>
- Belaoufi, H., El-Jamal, S., Sahel, K., Aboukhalaf, A., Friki, F., Chamlal, H., Elbiyad, J., Atouife, S., El Habazi, A. & Belahsen, R. (2024). Adherence to Mediterranean diet in Moroccan school-age adolescents: sociodemographic, socioeconomic and lifestyle determinants. *Roczniki Państwowego Zakładu Higieny / Annals of the National Institute of Hygiene*, 75(3), 261–273. <https://doi.org/10.32394/rpzh/194469>
- Benetou, V., Kanellopoulou, A., Kanavou, E., Fotiou, A., Stavrou, M., Richardson, C., Orfanos, P., & Kokkevi, A. (2020). Diet-Related Behaviors and Diet Quality among School-Aged Adolescents Living in Greece. *Nutrients*, 12(12), 3804. <https://doi.org/10.3390/nu12123804>
- Calderón-Pérez, L.; Domingo, A.; Bas, et al. Switching Mediterranean Consumers to Mediterranean Sustainable Healthy Dietary Patterns(SWITCHtoHEALTHY): StudyProtocol of a Multicentric and Multi-Cultural Family-Based Nutritional Intervention Study. *Nutrients* 2024, 16, 3938. <https://doi.org/10.3390/nu16223938>.
- Cuschieri, S., & Libra, M. (2021). Adherence to the Mediterranean diet in Maltese adults. *International journal of environmental research and public health*, 18(1), 10.
- Dhammawati, F., Fagerberg, P., Diou, C., Mavrouli, I., Koukoura, E., Lekka, E., Stefanopoulos, L., Maglaveras, N., Heimeier, R., Karavidopoulou, Y., & Ioakimidis, I. (2023). Ultra-Processed Food vs. Fruit and Vegetable Consumption before and during the COVID-19 Pandemic among Greek and Swedish Students. *Nutrients*, 15(10), 2321. <https://doi.org/10.3390/nu15102321>
- El Kabbaoui M, Chda A, Bousfiha A, Aarab L, Bencheikh R, Tazi A. Prevalence of and risk factors for overweight and obesity among adolescents in Morocco. *East Mediterr Health J*. 2018;24(6):512–521. <https://doi.org/10.26719/2018.24.6.512>
- FAO and WFP. (2020). Home-Grown School Feeding Resource Framework: Synopsis. Food and Agriculture Organization of the United Nations and World Food Programme, Rome.
- Fernandes, M., Galloway, R., Gelli, A., Mumuni, D., Hamdani, S., Kiamba, J., Quarshie, K., Bhatia, R., Aurino, E., Peel, F., & Drake, L. (2016). Enhancing linkages between healthy diets, local agriculture, and sustainable food systems: The School Meals Planner Package in Ghana. *Food and Nutrition Bulletin*, 37(4), 571–584. <https://doi.org/10.1177/0379572116659156>
- Galway, L. P., Levkoe, C. Z., Portinga, R. L., & Milun, K. (2021). A scoping review examining governance, co-creation, and social and ecological justice in living labs literature. *Challenges*, 13(1), 1

Gketsios, I., Tsiampalis, T., Foscolou, A., Vassilakou, T., Kanellopoulou, A., Notara, V., Antonogeorgos, G., Rojas-Gil, A. P., Kornilaki, E. N., Lagiou, A., Panagiotakos, D. B., & Kostis, R. I. (2022). The Association of Junk Food Consumption with Preadolescents' Environmental Influences: A School-Based Epidemiological Study in Greece. *Children*, 9(12), 1891. <https://doi.org/10.3390/children9121891>

Government of Tunisia. (2016). Government Decree No. 2016-664 of 25 May 2016 establishing the Office of School Services and defining its administrative and financial organisation and operating procedures. *Official Gazette of the Republic of Tunisia*, No. 47, 10 June 2016.

Health Behaviour in School-aged Children study (2023), Data browser (findings from the 2021/22 international HBSC survey): <https://data-browser.hbsc.org>.

Jamoussi, H., Mahjoub, F., Sallemi, H., Berriche, O., Ounaissa, K., Amrouche, C., Blouza, S., & Blouza-Chabchoub, S. (2012). Metabolic syndrome in Tunisian obese children and adolescents. *La Tunisie Médicale*, 90(1), 36–40.

Kaoutar K, Chetoui A, El Kardoudi A, et al. Eating habits, lifestyle factors and body weight status among Moroccan school adolescents (12–19 years): The case of Beni Mellal city. *Mediterranean Journal of Nutrition and Metabolism*. 2021;14(3):233-243. doi:10.3233/MNM-200506

Leask, C. F., Sandlund, M., Skelton, D. A., Altenburg, T. M., Cardon, G., Chinapaw, M. J. M., De Bourdeaudhuij, I., Verloigne, M., & Chastin, S. F. M. (2019). Framework, principles and recommendations for utilising participatory methodologies in the co-creation and evaluation of public health interventions. *Research Involvement and Engagement*, 5, Article 2. <https://doi.org/10.1186/s40900-018-0136-9>

Lim, Y., van Lierop, M., Meister, J., Chapman, E., & Bukovski, V. (2023). State-of-the-art report on good practice for co-governance of nature-based solutions (JUSTNature Deliverable D7.1, Version 4). JUSTNature. <https://justnatureproject.eu/resources/https-justnatureproject-eu-resources-public-deliverables/d7-1-state-of-the-art-report-on-good-practice-for-co-governance-of-nbs>

Lundy, L. (2007). 'Voice' is not enough: Conceptualising Article 12 of the United Nations Convention on the Rights of the Child. *British Educational Research Journal*, 33(6), 927–942. <https://doi.org/10.1080/01411920701657033>

Mahjoub, F., et al. (2024). Overweight and obesity among Tunisian schoolchildren. *La Tunisie Médicale*, 102(11), 903–909. <https://doi.org/10.62438/tunismed.v102i11.5205>

Makri, R., Katsoulis, M., Fotiou, A., Kanavou, E., Stavrou, M., Richardson, C., Kanellopoulou, A., Orfanos, P., Benetou, V., & Kokkevi, A. (2022). Prevalence of Overweight and Obesity and Associated Diet-Related Behaviours and Habits in a Representative Sample of Adolescents in Greece. *Children*, 9(1), 119. <https://doi.org/10.3390/children9010119>

Manoussi, A., Nacer, N., Kajjoune, I. et al. Prevalence and predictors of overweight and obesity among women of childbearing age in the province of Essaouira, Morocco. BMC Public Health 25, 135 (2025). <https://doi.org/10.1186/s12889-025-21353-y>

Ministry of Health and UNICEF Tunisia. (2026). Strategic Plan for Food and Nutrition of Children aged 0–18 years, 2024–2030. Tunis, Tunisia.

Petridi, E., Magriplis, E., Kotopoulou, S., Myrintzou, N., Charidemou, E., Philippou, E., & Zampelas, A. (2026). Associations Between Consumption of Ultra-Processed Foods and Diet Quality Among Children and Adolescents. Nutrients, 18(2), 272. <https://doi.org/10.3390/nu18020272>

Petrou, I., Ioannou, G., Manou, M., Genitsaridi, S.-M., Ramouzi, E., Vourdoumpa, A., Kyrkili, A., Papadopoulou, M., Kassari, P., Charmandari, E. Dietary Habits in Children and Adolescents with Overweight and Obesity in Greece. Horm Res Paediatr 24 March 2026; 99 (2): 246–265. <https://doi.org/10.1159/000550405>

Trichopoulou et al. (2003). Adherence to a Mediterranean diet and survival in a Greek population. New England Journal of Medicine, 348(26), 2599–2608. <https://doi.org/10.1056/NEJMoa025039>

World Health Organization. Regional Office for Europe (2025). WHO European Childhood Obesity Surveillance Initiative (COSI): report on the sixth round of data collection, 2022–2024. World Health Organization. Regional Office for Europe. <https://iris.who.int/handle/10665/383314>. License: CC BY-NC-SA 3.0 IGO

World Health Organization (2023). Health Behaviour in School-aged Children (HBSC) study. [https://www.who.int/europe/initiatives/health-behaviour-in-school-aged-children-\(hbsc\)-study](https://www.who.int/europe/initiatives/health-behaviour-in-school-aged-children-(hbsc)-study). <https://data.who.int/countries/300>

World Health Organization. (2026). Nutrition Landscape Information System country profile: Tunisia. <https://apps.who.int/nutrition/landscape/report.aspx?iso=tun>

11. Annexes

Annex I – Stakeholder Mapping Template

Table 5. Template for Stakeholder Mapping.

Stakeholder group	Role	Level of Interest	Level of Influence	Expected Contribution	Engagement Method	Responsible Partner	Phase of Involvement
Students (aged 9–18)	Primary beneficiaries and co-creators of the school food environment	High – directly affected by project activities, education, diet and health outcomes	Medium – limited institutional decision-making power, but strong influence on co-design, acceptability and project results	Participate in Living Labs; co-design and test interventions; use AI/VR tools; provide feedback; support adoption of healthier Mediterranean Diet habits	Living Labs; gamified AI Food Assistant; VR modules; tasting/co-design workshops; classroom activities; surveys and focus groups	GLC (WP3 – Living Labs); EVAV (WP4 – Digital Tools)	M13–M24 (Living Labs deployment); M21–M36 (Evaluation)
Parents & Families	Secondary beneficiaries and facilitators of behaviour change at household level	High – strong interest in children's health, education and nutrition	Medium – shape the home food environment and reinforce children's adherence, but have limited institutional authority	Support Mediterranean Diet adoption at home; participate in community activities; use family-oriented resources; provide feedback on acceptability and behavioural change	Information and awareness sessions; family cooking/cultural food activities; surveys; community workshops; digital resources	UOMO (Task 3.3 – Family and community engagement)	M16–M24 (Community engagement); M21–M36 (Evaluation)

Educators & School Staff	Key implementers and facilitators of school-based Living Lab and educational activities	High – project tools and resources can be integrated into teaching and school activities	High – coordinate classroom implementation, facilitate school access and strongly influence student participation	Integrate educational resources; facilitate Living Labs; co-design engagement methods; support data collection and implementation of school activities	Teacher training; co-design workshops; facilitation kits; classroom activities; institutional meetings; surveys and focus groups	UOMA (WP2 – Methodology); GLC (WP3 – Living Labs)	M1–M36 (from methodological design through implementation and evaluation)
Health & Nutrition Actors	Health, nutrition and technical experts supporting validation and monitoring	High – project aligns with preventive health, nutrition and student well-being objectives	Medium to High – can validate health/nutrition content, support monitoring and facilitate institutional uptake	Validate nutritional and health content; contribute to monitoring frameworks and dietary adherence assessment; support health-related data collection and policy recommendations	Technical reviews; validation workshops; institutional/policy dialogues; evaluation activities; collaboration on health-related data collection	UOMO; IAV-CHA (WP5 – Evaluation) – partner allocation to be validated for all contexts	M1–M10 (monitoring framework); M21–M36 (evaluation); M30–M36 (policy uptake)
Local Food Producers & Agri-food SMEs	Food-system and supply-chain actors providing local, seasonal and sustainable	High – potential access to institutional markets and stronger links	Medium – influence feasibility and availability of local supply, although procurement rules	Contribute local and seasonal products; support farm-to-school links; provide food-safety and	Consultations; matchmaking events; field visits; procurement pilots; SchoolMed Diet community events	INAT (WP6 – Public Procurement); GLC (WP3 – school/community activities)	M13–M24 (community/Living Lab activities); M25–M32 (procurement pilots)

	le products	with schools and communities	are set by public authorities	supply-chain input; participate in procurement pilots and food heritage activities			
School Catering & Food Service Actors	Operational actors responsible for school meal planning, preparation and/or food provision where applicable	High – interventions may affect menus, sourcing and daily food-service practices	High – directly influence meals and food-service implementation in schools with catering provision	Co-design and test Mediterranean Diet-aligned menus; adopt sustainable and low-waste practices; test sourcing and procurement approaches, where school meal systems exist	Menu co-design workshops; specialised training; operational pilots; participation in procurement implementation	INAT (WP6 – Public Procurement); GLC (WP3 – Living Labs)	M13–M24 (Living Labs); M25–M32 (procurement pilots)
Municipalities & Public Authorities	Institutional decision-makers enabling procurement, policy integration and scaling	High – relevant to public health, education, local development and sustainable food systems	High – influence budgets, regulatory frameworks, procurement procedures and institutional adoption	Enable sustainable public food procurement; connect schools with local food actors; support pilots; integrate project evidence and recommendations	Stakeholder dialogues; policy roundtables; signing of Memoranda of Understanding (MoUs); procurement pilots; policy co-creation and replication activities	INAT (WP6 – Public Procurement); ACTIA (T6.2 policy mapping)	Early engagement throughout; intensified M25–M36 for procurement, policy and uptake

				into policy and practice			
Academic & Training Institutions	Scientific, methodological and capacity-building actors	High – opportunities for research, training, student engagement and knowledge exchange	Medium – expertise and credibility influence scientific quality, educational content and capacity building	Provide research, nutrition/public health and pedagogical expertise; support training; contribute to scientific validation, capacity building and knowledge transfer	Working meetings; expert reviews; joint workshops; training activities; research and evaluation collaboration	INAT (responsible for WP6 - Public procurement) and GLC (responsible for WP3 - Living Labs)	M13 to M24 (Living Labs implementation) and M25 to M32 (Procurement pilots)
NGOs & Civil Society Organizations	Community intermediaries supporting outreach, access and co-delivery	High – project objectives align with community, education, nutrition and school-food interests	Medium – networks and local credibility can influence participation, outreach and acceptance	Support community mobilisation; facilitate access to beneficiaries; co-deliver awareness and engagement activities; provide community feedback	Partnership meetings; community workshops; joint events; awareness activities	UOMO (which is affiliated with the Regional Service for School and University Medicine) and IAV-CHA (responsible for WP5 - Evaluation)	M1 to M10 (Definition of monitoring framework), M21 to M36 (School-based evaluation), and M30 to M36 (Policy briefs)
Media, Cultural & Heritage Actors	Communication and cultural actors supporting awareness and Mediterranean	Medium – project offers relevant content around food culture, education	Low to Medium – can strengthen visibility, public awareness, cultural anchoring and	Raise public awareness; communicate project results; promote Mediterranean Diet heritage	Press releases; social media; storytelling; public events; dissemination campaigns	UOWM (Coordinator) with national teams	Throughout communication and dissemination activities

	food heritage	on and health	stakeholder participation	and cultural dimensions			
--	---------------	---------------	---------------------------	-------------------------	--	--	--

Annex II – Living Lab Activity Planning and Documentation Template

Table 6. Planning and Documentation Template for Living Lab activities.

Field	Information to be completed
Activity title	<i>Name of the Living Lab activity</i>
Country / Living Lab / School	<i>Location and implementation setting</i>
Target Age group	<i>Age group of the participants</i>
Target participants	<i>Students, parents/caregivers, educators, food-service staff, etc.</i>
Activity type	<i>Workshop, experiential activity, food-related activity, digital activity, focus group, co-design session, etc.</i>
Rationale / identified need	<i>Need or issue identified through the needs assessment, adaptation workshops or stakeholder consultation that the activity addresses</i>
Learning / behavioral objectives	<i>What participants are expected to learn, explore, develop or change</i>
Expected outcomes	<i>Intended immediate outputs or outcomes of the activity</i>
Duration and setting	<i>Estimated duration, group size and location</i>
Stakeholders involved	<i>Who is attending and engaged</i>
Materials/resources required	<i>Educational materials, food products, digital tools, equipment, worksheets, etc.</i>
Link with Mediterranean Diet	<i>Describe how the activity relates to the principles and components of the Mediterranean Diet</i>
Link with Sustainability/ Local food systems	<i>Describe how the activity incorporates or promotes sustainability principles and/or engagement with local food systems. This may include, where relevant, seasonal and locally produced foods, food waste reduction, environmentally responsible food choices, traditional food practices, local producers or awareness of food production and supply chains</i>
Links to relevant indicators (T2.3.)	<i>Identify the indicator(s) defined under T2.3 that are relevant to the activity and specify how the activity is expected to contribute to, or generate information relevant to, these indicators</i>
Activity procedure	<i>Step-by-step description of how the activity will be conducted</i>

Participatory/co-creation component	<i>How students and/or other stakeholders actively contribute rather than only receive information</i>
Age-sensitive adaptation	<i>Adaptations to language, complexity, facilitation, materials and engagement methods for the relevant age group</i>
Local adaptation	<i>Country-, school-, cultural- or context-specific modifications</i>
Roles and responsibilities	<i>Person(s) responsible for preparation, facilitation, supervision and documentation</i>
Ethics and safeguarding considerations	<i>Consent/assent, privacy, photography, participation of minors and other relevant requirements</i>
Food safety/allergen considerations	<i>Required where food preparation, handling or tasting is involved</i>
Digital/data considerations	<i>Relevant privacy, GDPR or digital-access considerations where digital tools are involved</i>
Participant feedback	<i>How feedback will be collected: short questionnaire, discussion, voting, observation, etc.</i>
Evaluation / success indicators	<i>How implementation and achievement of the activity objectives will be assessed</i>
Implementation observations/ Lessons learnt	<i>Participation, feasibility, barriers, unexpected issues and facilitator observations</i>
Refinement required	<i>What should be retained, modified or removed before repeating the activity</i>
Supporting documentation	<i>Attendance record, materials used, feedback forms, photos where permitted, facilitator notes, etc.</i>

Annex III – Food Safety and Allergen checklist for Living Labs activities

Table 7. Food Safety and Allergen checklist for Living Lab activities involving cooking/tasting.

Item to document/ verify	Details/Action Required	Responsible Person	Status (Complete/Yes/NA)
Food/product identification	List all foods, ingredients, drinks and products to be used		
Ingredient information available	Ingredient lists/labels are available for packaged and prepared foods		
Potential allergens identified	Record allergens associated with each food/product and check for hidden ingredients		
Participant allergy information checked	Relevant allergy/intolerance information has been obtained through the school's approved procedures		

Cross-contact risk assessed	Consider preparation surfaces, utensils, storage, serving equipment and shared ingredients		
Allergen management measures established	Separation, dedicated utensils, labelling or exclusion of specific foods, as appropriate		
Food source/supplier checked	Foods are obtained from sources permitted under applicable school/local procedures		
Storage conditions appropriate	Food can be stored according to product requirements before and during the activity		
Preparation conditions appropriate	Suitable preparation area, clean equipment/surfaces and safe handling arrangements available		
Personal hygiene arrangements	Handwashing facilities and appropriate hygiene procedures are available		
Temperature control considered	Appropriate temperature conditions can be maintained where relevant		
Serving arrangements appropriate	Procedures minimize contamination/cross-contact and foods can be clearly identified		
Supervision established	Appropriate adult supervision is available for food preparation, handling and/or tasting		
School permission obtained	Activity complies with school procedures for food-related activities		
Parent/guardian requirements checked	Any required consent/notification procedures have been followed		
Local requirements checked	Relevant national/local food safety, school or institutional requirements have been considered		
Emergency arrangements known	School procedures for managing an allergic reaction or other food-related incident are known to responsible staff		



Connect with us

Meet our team



GREEK MINISTRY OF EDUCATION,
RELIGIOUS AFFAIRS AND SPORT
REGIONAL DIRECTORATE OF PRIMARY
AND SECONDARY EDUCATION
OF WESTERN MACEDONIA



Co-funded by
the European Union



Funded by the PRIMA Foundation (co-funded by the European Union and the Participating States). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the PRIMA Foundation. Neither the European Union nor the granting authority can be held responsible for them.