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PRESS RELEASE

PLAN'EAT releases the first reports for the transformation of European food systems

The European PLAN'EAT project, funded under the Horizon Europe initiative, reaches a crucial milestone today with the release of the first key publications on its website. The results, stemming from two years of intensive research, shed new light on the transformation of European food systems and offer concrete tools to accelerate the transition towards healthier and more sustainable diets.

I. The decisive impact of food environments on consumer choices: Typology of archetypes of EU food environments

PLAN'EAT's first major study reveals how food environments shape our daily food choices. The study is based on the premise that promoting a healthy and sustainable diet cannot be achieved solely through better informed consumers. Indeed, food choices are heavily influenced by direct environments, defined as the interface mediating food acquisition and consumption within the broader food system. The main objective of the research was to identify the challenges faced by Living Lab participants in their food environments to inform the development of effective interventions. "*The results of the study reveal that the influence of food environments on consumer choices depends not only on company strategies relating to product, price, promotion and distribution, but also on consumer experience within a socio-economic context. This context is particularly relevant in the case of socially vulnerable consumers, such as children, low-income groups, the elderly, or people in poor health*," explains Erik Mathijs, Professor in Bioeconomics at KU Leuven (Belgium) and study coordinator.

The study identified five major challenges impacting food choices:

1. **Availability and accessibility**: Participants expressed difficulties in sourcing food locally, particularly due to store layout and the range of available products. Some of these challenges also apply to restaurants, where healthy options are often hard to find.
2. **Affordability and pricing**: Access to quality, healthy, and sustainable food is perceived as dependent on an individual's financial situation. Farmers' markets are considered too expensive, and promotions on fruit and vegetables are rare.
3. **Information**: Participants reported a lack of information, as well as confusion and mistrust regarding any available information, particularly in restaurants.

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4. **Culture and traditions**: Although rarely mentioned, barriers relating to culture and religion also influence eating habits, especially when the environment does not cater for specific dietary requirements.
5. **Social interactions**: Reference groups exert a strong influence on eating habits, potentially promoting reluctance to try new products and reinforcing less healthy behaviours.

The study findings underline the importance of considering real life consumer experience when developing policies and interventions that improve diet, nutrition, health, and well-being in equal measure. The challenges identified have been integrated into four consumer archetypes or "personas," which bring to life different situations experienced by consumers.

II. Comparative Analysis of European Diets: Significant Impacts on Health and Environment - Food Impact Synthesis Report

The transition towards sustainable food systems is complex given the multidimensional nature of sustainability. Healthy and sustainable diets aim to support physical, mental and social well-being at every stage of life, prevent malnutrition and the risk of diet-related non-communicable diseases, while minimising all forms of environmental impact. PLAN'EAT's second major report summarises evidence of key health, environmental and societal sustainability challenges, providing recommendations to guide consumers, policymakers, and food industry professionals.

A multidisciplinary study outlining common impacts of current diets

The synthesis report is based on three internal project reports, providing country-specific analyses of environmental and health impacts and outlining the links between food consumption and social sustainability in EU member states. "*The methodology combines multiple data sources—from working group insights to extensive literature reviews, regional modelling studies, and international dietary guidelines. This mixed-method approach allows us to draw robust conclusions about necessary changes to achieve health, social and environmental sustainability*" explains Marlene Ohlau, lead author of the study and Research Associate at TMG – Think Tank for Sustainability (Germany).

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Key insights

- **Environmental impacts**: Meat and dairy products have the most significant negative impact, accounting for more than half the carbon footprint, substantial agricultural land use, additional nitrogen inputs (through fertiliser use in animal feed production), and over 95% of ammonia emissions.

- **Social impacts**: Various social impacts were discussed, including the financial insecurity of agricultural workers, forced labour, gender inequality, socio-economic well-being and opportunities, access to nutritious food, the influence of food environments on choice and food availability, and animal welfare.

- **Health impacts**: The Mediterranean diet—characterised by a high intake of fruit, vegetables, legumes, nuts and olive oil, alongside moderate consumption of fish and poultry—is recognised for its cardiovascular health benefits. However, a shift from current diets to the "planetary health diet", which recommends a significantly reduced intake of red meat and other animal products, would have an even more positive impact on health, due to its focus on plant-based protein to promote human health and reduce environmental impact.

Contrasting results by country

"*The health assessment of the study aimed to compare current diets with Mediterranean and planetary health diets, in terms of impact on Disability-Adjusted Life Years (DALYs), a crucial measure for assessing the overall burden of disease*," says Katerina Palascha, main author of the health analysis. Using current dietary patterns in Sweden, France and Italy as examples, significant shortfalls were identified compared to international dietary recommendations for human and planetary health:

- **Sweden**: Adopting the planetary health diet could save 18,942 DALYs annually, representing an 8% reduction in disease burden, through increased consumption of legumes, whole grains and nuts/seeds, and reduced intake of red and processed meats.

- **France**: Transitioning to the planetary health diet could save 80,901 DALYs annually, representing a 6.9% reduction in disease burden, where increased consumption of whole grains, legumes, nuts/seeds, fruit and vegetables would have a significant effect.

- **Italy**: The planetary health diet could save 88,964 DALYs annually, accounting for a 6% reduction in disease burden, primarily through increased consumption of legumes and nuts/seeds.

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Dietary recommendations aimed at increasing or reducing consumption of specific food groups:

1. **Limiting red and processed meats:** Consumption of red and processed meats should be significantly reduced to lower the risk of chronic diseases. Proteins should be obtained primarily from plant-based sources.

2. **Moderate consumption of dairy products and white meat:** Low-fat dairy products and white meat, such as chicken, should be consumed in moderation to ensure sufficient intake of protein and micronutrients such as vitamin B12 and zinc.

3. **Increased intake of legumes and nuts/seeds:** Diets should include at least three servings of legumes per week (70g raw / 125g cooked legumes per adult serving). Nuts and seeds should also be regularly incorporated to provide proteins and essential nutrients.

4. **Reduction of highly processed foods:** Foods with artificial, non-culinary ingredients not commonly used at home and/or those with too much added fat, sugar, and/or salt should be limited. This includes, for example, sugary drinks, ready meals, and processed desserts.

5. **Prioritising whole grains:** Carbohydrates should be sourced primarily from whole grains, with reduced consumption of refined grains and energy intake from free sugars limited to less than 5%.

6. **Incorporating alternative protein sources:** When reducing red meat consumption, it is essential to compensate with plant foods rich in proteins or moderate consumption of lower-impact animal products such as poultry, low-fat dairy products, and eggs.

7. **Eating sustainably sourced fish:** Fish and seafood should be from sustainably managed stocks (signalled by certifications and third-party labels) and intake of seaweed and bivalves should be increased.

8. **Consider adding fortified foods or supplements to vegetarian and vegan diets:** Restricting animal products affects nutrient intake. Fortified foods and/or supplements incorporated into diets can ensure adequate intake of nutrients such as vitamin B12, vitamin D, and iodine.

III. Development of a Toolbox for Living Labs: Practical Guide to setting up and running a Living Lab in the context of Food Transition

The PLAN'EAT project has also released a comprehensive toolbox. It defines a joint methodology that covers the essential elements involved in setting up a Living Lab, and meets several objectives: to bring together relevant stakeholders; to support the set-up and management of the Living Labs and facilitate interactions; to ensure stakeholder engagement; and finally, to co-create, co-design and test project solutions.

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According to Jana Kirschner, Senior Project Manager at EPHA (Belgium), the toolbox transcends the traditional concept of a guide, serving as a comprehensive practical reference document. "*This resource empowers Living Lab leaders to effectively navigate the complexities of stakeholder engagement and co-creation*," she explained. The toolkit marks a significant step forward in Living Lab methodology, combining structured guidance with adaptable frameworks to accommodate local contexts. It is expected to play a pivotal role in advancing sustainable solutions for European food systems.

About PLAN'EAT

PLAN'EAT brings together 24 partners from 11 EU countries, including leading universities, renowned research centres, and specialised non-profit organisations. The project conducts transdisciplinary research aiming to gather most expertise needed for food system transformation; from social, political, and economic sciences to agricultural, food, nutritional, and health sciences. PLAN'EAT's main objective is to foster the transition towards healthy and sustainable food behaviour by understanding underlying factors and drivers and designing effective recommendations, tools, and interventions targeting food system actors. The project implements a systemic and co-creation approach at macro (food system), meso (food environment), and micro (individual) levels. Different socio-cultural and geographical contexts are considered through the implementation of 9 Living Labs (LLs), 5 pan-European Consultation and Working Groups (CGWs), and 1 Policy Lab.

More information

Website : Home - PLAN'EAT Project
Delivrables : DELIVERABLES - PLAN'EAT Project
Partners : Partners - PLAN'EAT Project

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