



ORGANIC FOOD AS MODELS FOR SUSTAINABLE FOOD SYSTEMS IN EUROPE AND NORTH AFRICA

About SysOrg?

SysOrg Organic Agro-Food Systems as Models for Sustainable Food Systems in Europe and Northern Africa was a three-and-a-half-year transnational research project implemented from January 2021 to June 2024. Funded through the Joint SUSFOOD2/CORE Organic Call 2019, it brought together seven research and higher-education institutions from Germany, Denmark, Poland, Italy and Morocco. The project was internationally coordinated by Dr. Lilliana Stefanovic of the University of Kassel, while Ibn Tofail University, under the scientific leadership of Pr. Youssef Aboussaleh, led the Kenitra territorial case and anchored the North African contribution.



ONE PARTNERSHIP



SHARED PURPOSE



STRONGER FOOD SYSTEMS



SUSTAINABLE FUTURE

What is SysOrg?

SysOrg was created around a central proposition: food-system transformation cannot be understood through production, consumption, nutrition or waste in isolation. What people eat is shaped by what is produced, what is available and affordable, how food is purchased and prepared, what is discarded, and how farmers, markets, public institutions and communities interact. SysOrg therefore examined the food system as an interconnected whole rather than treating sustainable diets, organic agriculture and household food waste as separate fields of research. Its distinctive purpose was to identify shared intervention and entry points that could support transformation across territories while recognising that every pathway would need to be adapted to local cultural, environmental, institutional and economic conditions.

MISSION AND VISION

SysOrg's mission was to unite institutions across Europe and North Africa to achieve what no single partner or territory could accomplish alone: generate comparable evidence, learn across borders and translate that knowledge into locally grounded strategies for healthier, more sustainable and resilient food systems. Through complementary scientific expertise, common research tools and territorial knowledge,

the partnership sought to understand why people and organisations adopt or resist more sustainable choices and to identify practical entry points for improving food production, organic-food systems, dietary behaviour and waste reduction. Its vision extends beyond one completed research project. SysOrg demonstrates a partnership model through which researchers, territorial actors, communities and decision-makers can share evidence across borders without imposing identical solutions on fundamentally different places.

Geographical and Scientific Scope

The partnership studied five deliberately contrasting case territories: Copenhagen Municipality in Denmark, Warsaw in Poland, North Hesse in Germany, the Cilento Bio-District in Italy and Kenitra Province in Morocco. These territories included capital cities, rural regions, an established bio-district, a German organic model region and a mixed urban-rural North African province. Their differences were not treated as an obstacle; they formed the basis for understanding which challenges and intervention points were shared and which remained dependent on territorial context. The research connected four complementary perspectives: sustainable and healthy diets, organic food and farming, household food waste, and food-system transition. A common household survey examined socioeconomic characteristics, dietary composition, organic-food consumption and food-waste behaviour. Of the 4,330 people who began the survey, 2,210 valid respondents aged 18–95 were included in the final comparative evidence base. This common framework enabled the partners to examine local behaviours through shared indicators while preserving the language, food culture and data-collection realities of each territory.

The ambition is a food-system transition that is environmentally responsible, resource-efficient and socially accepted, supported by common scientific standards but shaped by the knowledge, needs and capacities of each territory.



WHY THE PROJECT MATTERS

SysOrg's value lies not only in the volume of evidence it generated, but in the structure through which that evidence became possible. Seven institutions combined different capabilities, five territories contributed different realities, and four research perspectives were brought into one system. The project created a common basis for comparing territories

that had previously been studied through disconnected disciplines and national approaches. It showed that international comparability does not require uniformity: partners can work through shared scientific standards while allowing local institutions to retain authority over participation, adaptation and interpretation.

THE PROBLEM, THE ORIGIN OF SYSORG AND ITS INTENDED OBJECTIVES

SysOrg began from a simple observation: food production, dietary choices, organic consumption and food waste are part of the same system, yet they were too often investigated and managed separately.

THE GAP BEFORE SYSORG

Food sustainability was often addressed through isolated actions. Waste-management programmes concentrated on food after it had already been discarded. Nutrition studies examined what people ate, while agricultural research focused on production and market studies analysed purchasing behaviour. These approaches generated useful evidence, but they rarely explained how diet, access to organic products, food preparation, shopping habits and waste influence one another. This fragmentation limited effective action. Food waste cannot be understood only as a disposal problem; it is also shaped by purchasing, storage, meal planning, cooking skills and the use of leftovers. Similarly, healthier and more sustainable diets depend not only on individual awareness, but also on price, availability, territorial markets and local food culture. SysOrg therefore shifted attention from managing isolated consequences to understanding the food system that produced them. The project treated diet, organic food, household waste and system transition as connected dimensions of one challenge.

THE ORIGIN OF THE IDEA

SysOrg was built on the idea that organic agro-food systems could offer valuable models for wider food-system transformation. Organic systems connect agricultural production with environmental protection, food quality, consumer demand, markets, community organisation and territorial governance. They therefore provide a useful lens for understanding how social, environmental, health and economic factors interact.

However, the partners did not assume that one successful model could simply be copied from one territory to another. The five case territories had very different organic sectors, economic conditions, food cultures and institutional environments. Denmark and Germany were more advanced in organic-market development, while Morocco represented an emerging organic-production and consumption context. The project was designed to identify both the barriers shared across territories and the conditions requiring local responses.

THE SYSORG RESPONSE

SysOrg created one comparative framework connecting sustainable diets, organic food and farming, household food waste, and food-system transition. It combined quantitative household evidence with qualitative interviews involving food-system initiatives and supporting desk research. This allowed the partnership to compare what households reported with the experiences of organisations already working towards more sustainable food systems. The common household survey collected information on socioeconomic characteristics, food-consumption frequency, organic-food choices and food-waste behaviour.

The same analytical core was used across the territories, while language, recruitment and implementation were adapted locally. This balance made it possible to generate comparable evidence without ignoring cultural and territorial realities. What was new was not the study of food waste, diets or organic agriculture individually. It was their integration within one international evidence system. Instead of producing five unrelated case studies, SysOrg created a framework through which findings from one territory could inform the interpretation of another.



OBJECTIVES AND INTENDED VALUE

SysOrg pursued four connected objectives:

- 1 Generate comparable evidence
- 2 Connect dimensions normally studied separately,
- 3 Produce reusable knowledge
- 4 Identify barriers, drivers and practical entry points

The project's intended contribution was therefore both scientific and practical: to replace fragmented knowledge with a shared understanding of how food systems function, where change is most needed and which responses can travel across territories without becoming one-size-fits-all.

PARTNERSHIP ARCHITECTURE

THE PROBLEM, THE ORIGIN OF SYSORG AND ITS INTENDED OBJECTIVES

SysOrg was structured around a clear principle: no institution possessed all the expertise, territorial access and cultural knowledge required to examine five different food systems through one comparable framework. The University of Kassel coordinated the international consortium under the leadership of Dr. .

Lilliana Stefanovic, while Pr. Youssef Aboussaleh and Ibn Tofail University led the Kenitra case and anchored the project's North African contribution. Rather than dividing the project into independent national studies, the seven institutions contributed distinct capabilities to one connected research system

Institution	Distinct contribution to the partnership
Ibn Tofail University, Morocco	Scientific responsibility for Kenitra, Moroccan contextual interpretation and locally led research outputs
University of Kassel, Germany	Consortium coordination, project administration and expertise in organic food quality and transformation
University of Copenhagen, Denmark	Sustainable nutrition, dietary assessment and analysis of healthy and sustainable eating patterns
Warsaw University of Life Sciences, Poland	Organic-food systems, consumer behaviour and responsibility for the Warsaw territory
CREA, Italy	Household food-waste measurement, behavioural interpretation and the Cilento evidence
FH Münster University of Applied Sciences, Germany	Responsibility for the system-transition perspective, including food services and social innovation
CIHEAM Bari, Italy	Mediterranean food systems, territorial initiatives and policy-oriented interpretation

The project's cross-territory publications include researchers from these seven institutions, confirming that the scientific results were produced through combined expertise rather than by one dominant centre. The project design also assigned responsibility for the five territories to local or closely connected scientific partners, while FH Münster contributed across territories through the transition perspective.

A PARTNERSHIP BUILT ON TWO CONNECTED LEVELS

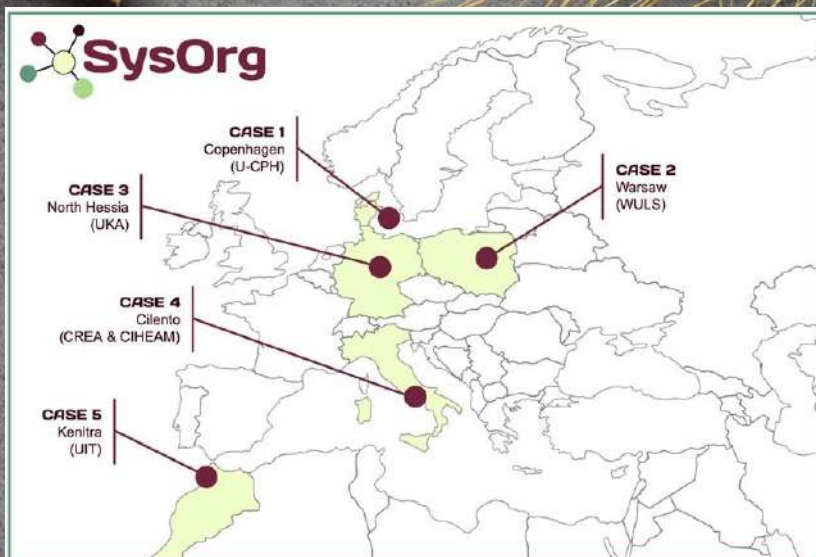
SysOrg combined thematic responsibility with territorial ownership. Specialists in diets, organic food, household waste and system transition protected the scientific quality of each perspective. Territorial teams ensured that the evidence remained meaningful within Copenhagen, Warsaw, North Hessia, Cilento and Kenitra. This arrangement was central to the partnership's innovation. A purely centralised model could have produced uniform tools but weak local relevance. Five fully independent studies could have respected local contexts but would not have generated comparable evidence. SysOrg connected both requirements: shared standards made comparison possible, while territorial authority preserved cultural, economic and institutional meaning.

HOW COORDINATION BECAME COLLECTIVE WORK

Coordination was achieved through joint planning, agreed research questions, distributed responsibilities, partner meetings, shared analysis and collective publication. The University of Kassel maintained overall project administration, while scientific decisions and outputs involved partners from across the consortium. Funding responsibility was also distributed through national agencies in Germany, Morocco, Poland, Denmark and Italy, demonstrating that the partnership rested on shared institutional commitment rather than a single source of ownership. The strongest evidence of coordination is the publication record. Territorial studies did not remain local reports: researchers from several partner institutions contributed to their methodology, validation, interpretation and review. In return, the evidence collected in each territory informed broader comparative analyses across Europe and North Africa.

Equity in Practice: The Kenitra Contribution

Ibn Tofail University's role demonstrates that the partnership was not based on extracting data from a North African territory for analysis elsewhere. Moroccan researchers led the investigation and interpretation of the Kenitra evidence and produced locally led publications on dietary patterns, organic-food consumption and household food waste. The organic-consumption publication records Amina Lafram as contributing to conceptualisation, investigation, formal analysis, visualisation and original drafting. It records Pr. Youssef Aboussaleh as contributing to conceptualisation, methodology, resources, supervision, validation and funding acquisition. Other Ibn Tofail researchers contributed investigation, data curation, software and review. This distribution of responsibility gave each partner a meaningful benefit. Thematic specialists gained comparative evidence and new analytical applications. Territorial partners gained locally usable baselines, research capacity, co-authorship and international visibility. Communities and decision-makers gained findings interpreted through their own market, dietary and institutional realities.



FROM DESIGN TO PRACTICE

How SysOrg Produced Comparable Evidence Without Erasing Local Realities

The partnership structure presented became operational through a common mixed-method research framework. SysOrg combined household evidence, interviews with food-system initiatives and territorial desk research. The household survey revealed what people ate, purchased and wasted; the interviews explored the organisations and conditions already supporting or obstructing change; and the desk research situated both within each territory's policies, markets and organic-sector development. Integrating these sources allowed the consortium to move beyond describing behaviour and investigate why patterns differed and where intervention could realistically begin.

SysOrg's partnership innovation was the creation of one scientific system in which coordination protected coherence, specialist expertise protected quality and territorial authority protected relevance.

One Survey Connecting the Food System

The consortium jointly developed a household questionnaire covering four related dimensions: socioeconomic characteristics, dietary composition, organic-food consumption and household food waste. The dietary section measured the frequency of consumption of 24 food groups. These frequencies were converted into estimated quantities and compared with the Planetary Health Diet to develop the Sustainable and Healthy Diet Index, providing one reference for assessing diet quality across all five territories. Because diet, organic purchasing and food waste were captured through the same instrument, the evidence could be examined as one system rather than as unrelated topics. The survey showed not only what households consumed or discarded, but also how these behaviours related to income, education, household characteristics, access and territorial food environments.

Scientific Quality Before Data Collection

The questionnaire passed through three validation stages. First, specialists in survey design, nutrition, organic food and food waste reviewed its clarity and relevance. Second, it was translated into Italian, Danish, German, Arabic, French and Polish. Independent translators and native-language experts checked each version and adapted food examples to local consumption habits. Finally, participants in every territory piloted the instrument before its full distribution. This process preserved equivalent questions across countries while reducing misunderstanding caused by language or culturally unfamiliar foods.

Local Adaptation as Part of the Method

The scientific core remained common, but partners adapted how participants were reached. Most responses were collected online through university platforms, mailing lists and social networks. In Kenitra, however, Ibn Tofail University combined digital distribution with paper questionnaires and face-to-face interviews in public markets, allowing participation by residents with limited internet access or literacy. In Cilento, face-to-face collection was expanded after the online approach produced an insufficient response. These adaptations changed the route to participation, not the shared questions or analytical framework.

Local Adaptation as Part of the Method

Across the five territories, 4,330 people began the survey. Responses were screened for completeness, age, residence within the case territory and credible completion. The final comparative dataset contained 2,210 valid respondents aged 18–95:

Cilento 502

Copenhagen 279

North Hestia 531

Kenitra 446

Warsaw 452



Understanding the Organisations Behind Change

The quantitative evidence was complemented by semi-structured interviews with selected organic initiatives. In the published five-territory organic analysis, researchers interviewed 15 initiatives: two in Copenhagen, two in Cilento, three in North Hestia, four in Warsaw and four in Kenitra. Initiatives were identified with local actors, screened for their relevance and impact, and then interviewed about the drivers supporting their work and the barriers they faced. Interviews were conducted in participants' original languages, recorded, transcribed, translated into English and analysed through a structured thematic coding process involving a second coder.

From Local Evidence to Collective Interpretation

After data collection, the partners applied shared quality and analytical principles before interpreting the findings together. Territorial teams explained results through their knowledge of local diets, markets and institutions, while thematic specialists compared patterns across sustainable diets, organic food, waste and system transition. This prevented numerical differences from being interpreted without understanding the cultural and structural conditions behind them.

The detailed Kenitra studies used 442 eligible respondents after applying the specific completeness and inclusion rules required for those analyses. Data collection was anonymous and voluntary, and the Kenitra research received regional ethical approval.

FIVE TERRITORIES, FIVE LESSONS

How Common Evidence Revealed Different Priorities

The value of the SysOrg comparison was not to rank territories or prescribe one universal solution. By applying the same analytical framework across five contrasting settings, the partnership showed how similar different diets, markets, institutions and cultural practices shaped food-system challenges. Each territory therefore contributed a distinct lesson and a different starting point for action.

Sustainable and Healthy Diets

The partnership developed the Sustainable and Healthy Diet Index (SHDI) to compare reported diets with the Planetary Health Diet through one common reference. Copenhagen and Warsaw achieved the highest overall scores, although no territory fully matched the recommended pattern. Meat was overconsumed in most case territories, while the results also challenged assumptions based on reputation alone: Cilento reported lower-than-expected vegetable intake despite its Mediterranean identity, and Kenitra combined beneficial legume consumption with comparatively high meat intake. Diet quality also varied with gender, education and income in some territories.

What this means: sustainable-diet action cannot depend only on general dietary guidance. It must consider affordability, food environments, education and the cultural meaning attached to particular foods.

Organic Food and Farming

The organic-food analysis found that the five territories were at very different stages of development, yet several barriers appeared repeatedly. These included underdeveloped markets, limited availability, regulatory or budgetary constraints, insufficient knowledge and awareness, and concerns relating to price and value. The common drivers were also clear: education, trusted information, community support, public incentives and stronger cooperation among food-system actors. The project translated these findings into practical entry points, including training and awareness, stronger organic communities, region-specific communication, more inclusive markets, appropriate public support and incentives adapted to local motivations.

What this means: there is no single route to organic transition. Shared barriers can be recognised internationally, but the response must reflect each territory's market maturity, institutions, traditions and consumer priorities.

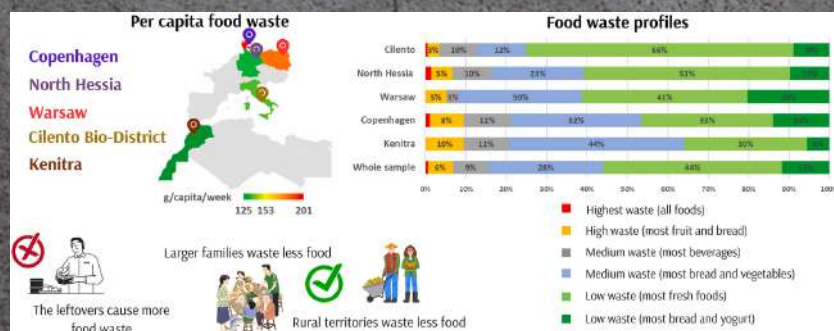
Household Food Waste

The comparative evidence showed that food waste cannot be understood through one number alone. Rankings changed when waste was calculated per household rather than per person, demonstrating the importance of household size. Rural territories such as Cilento and North Hestia generally reported lower per-capita waste than Copenhagen and Warsaw, while the dominant forms of discarded food also differed. Partly used food was prominent in Copenhagen, Warsaw and Cilento; stored meal leftovers were more visible in North Hestia; and leftovers were a major issue in Kenitra.

The Kenitra analysis identified bread as the most wasted item, at approximately 361 grams per household per week, followed by fresh produce at 98 grams and cheese at 9 grams. Difficulties preparing meals from available ingredients and reusing small leftovers were among the reported causes.

Cilento added another important lesson: relatively low waste did not necessarily mean that households consciously recognised every preventive behaviour. Some practices may be embedded in everyday routines without being described as deliberate waste prevention.

What this means: awareness campaigns alone are insufficient. Effective action must also strengthen meal planning, portioning, storage, shopping decisions and practical leftover-use skills.



FIVE TERRITORIES, FIVE LESSONS

HOW SHARED EVIDENCE PRODUCED DIFFERENT TERRITORIAL PRIORITIES

The value of the SysOrg comparison was not to rank territories or prescribe one universal solution. By applying the same analytical framework across five contrasting settings, the partnership showed how similar

food-system challenges were shaped by different diets, markets, institutions and cultural practices. Each territory therefore contributed a distinct lesson and a different starting point for action.

Territory	Distinct lesson	Priority opened by the evidence
Kenitra	The evidence revealed a territory undergoing dietary and market transition: high consumption of several animal products, emerging interest in organic food, limited access and affordability, and bread as the dominant household waste stream.	Combine nutrition education, organic-market development and practical food-waste prevention within one territorial strategy.
Copenhagen	The territory achieved the diet closest to the Planetary Health Diet and one of the highest SHDI scores, with strong vegetable, wholegrain and legume consumption.	Consolidate plant-rich diets while continuing to reduce excessive meat consumption and widening participation beyond highly engaged consumers.
North Hessa	North Hessa reported comparatively low meat consumption and stronger food-waste prevention than metropolitan territories, reflecting its rural and established organic context.	Combine food-system transition with equitable access, consumer education and support for households facing economic barriers.
Warsaw	Warsaw also achieved a high SHDI score, but healthier and more sustainable diets were associated with higher education and income.	Connect mature organic production more closely with everyday consumer behaviour, awareness and inclusive market participation.
Cilento Bio-District	Cilento reported lower food-waste quantities than national Italian evidence, yet some prevention abilities were less consciously recognised. Vegetable intake was also unexpectedly low despite the territory's Mediterranean identity.	Build on community traditions through practical food skills, local-product promotion, farmer collaboration and community-based waste prevention.

The SHDI analysis confirmed that Copenhagen and Warsaw had the strongest overall dietary scores, while the results within each territory varied according to social and economic conditions. It also showed that territorial reputation alone could not predict performance: Cilento's Mediterranean identity did not guarantee high vegetable intake, and Kenitra combined positive food traditions with high reported consumption of meat and other animal products. Kenitra's detailed studies created a particularly valuable local baseline. Among 442 respondents, organic products represented only 1–25% of total food consumption in 60% of households, while price, availability, accessibility and product variety limited wider adoption. The household-waste study identified bread as the most discarded food, averaging 361 grams per household per week, alongside difficulties in using small leftovers and preparing meals from available ingredients.

VALUE FOR DIFFERENT SECTORS



RESEARCHERS AND UNIVERSITIES

gained a shared dataset, territorial baselines and a methodology for comparing food systems without removing local context. The findings can support teaching, student research and future longitudinal studies.



PUBLIC-HEALTH AND EDUCATION ACTORS

gained evidence for targeted nutrition education, particularly around vegetable intake, meat reduction, meal planning and practical food skills.



FARMERS AND ORGANIC PRODUCERS

gained clearer knowledge of consumer motivations and the barriers restricting organic uptake, including affordability, trust, information and market access.



RETAILERS, CANTEENS AND FOOD-SERVICE PROVIDERS

gained evidence for improving product availability, portion planning, labelling, surplus redistribution communication and with consumers.



MUNICIPALITIES AND POLICYMAKERS

gained territory-specific entry points rather than generic recommendations. These include supporting organic networks, strengthening community initiatives, improving food-waste education and designing measures suited to local market maturity.



HOUSEHOLDS AND COMMUNITIES

gained visibility within the food-system debate: their routines, limitations and priorities became part of the evidence used to shape future action.

WHAT THE PARTNERSHIP MADE POSSIBLE

Without the partnership, each territory could have produced a useful local study. Through SysOrg, those studies became reference points within a wider Europe–North Africa comparison. The project showed where challenges were shared, where they differed and which sectors needed to work together.

The value of SysOrg was not that five territories received the same recommendation. It was that each territory gained a clearer pathway from a common evidence base.

FROM PROJECT TO KNOWLEDGE LEGACY

A Partnership That Continued Producing Knowledge

SysOrg's funded phase concluded in June 2024, but its contribution did not end with the project period. The partnership transformed evidence collected across five contrasting territories into a portfolio of peer-reviewed research, comparative methodologies, territorial baselines and reusable analytical tools. The result is a body of knowledge that remains available to researchers, institutions and practitioners seeking to understand how food systems can become healthier, more sustainable and more resilient. The project's strongest legacy is the combination of a harmonised comparative evidence base, the Sustainable and Healthy Diet Index (SHDI), territorial food-system baselines and analyses of local initiatives. Together, these outputs provide a foundation for comparing territories, identifying intervention priorities and, in future, measuring whether food-system interventions produce measurable change.

A Scientific Publication Portfolio

The partnership extended its research through peer-reviewed publications addressing the project's four interconnected dimensions. Rather than producing isolated outputs, SysOrg generated complementary research spanning sustainable diets, organic food systems, household food waste and food-system transition.

Publication	Journal	Year	DOI	SysOrg status
Household food waste in five territories in Europe and Northern Africa: Evaluation of differences and similarities as implication for actions	Journal of Cleaner Production	2024	10.1016/j.jclepro.2024.142086	Directly based on the five SysOrg territories and listed by SysOrg-affiliated institutional records, (Københavns Universitets)
Organic food consumption in Kenitra, Morocco: attitudes, motivations, and barriers	Frontiers in Sustainable Food Systems	2024	10.3389/fsufs.2024.1413498	The article explicitly states that the study is part of the SysOrg project. (Frontiers)
Exploring food consumption patterns in the province of Kenitra, Northwest of Morocco	BMC Public Health	2024	10.1186/s12889-024-19335-7	The article explicitly identifies the research as part of SysOrg. (Springer)
Household Food Waste in Morocco: An Exploratory Survey in the Province of Kenitra	Sustainability	2024	10.3390/su16114474	The paper explicitly identifies the research as part of SysOrg and is listed on the official SysOrg
Food waste behaviors of the families of the Cilento Bio-District in comparison with the national data: elements for policy actions	Frontiers in Sustainable Food Systems	2024	10.3389/fsufs.2024.1385700	The article explicitly describes the Cilento research as part of SysOrg and is listed by the University of Kassel's SysOrg page. (Frontiers)
Entry Points, Barriers, and Drivers of Transformation Toward Sustainable Organic Food Systems	Nutrients	2025	10.3390/nu17030445	Direct five-territory SysOrg study, listed on the official SysOrg organic perspective
Sustainable and healthy diet index (SHDI) unveils regional differences in Europe and Northern Africa: findings from the SysOrg study	European Journal of Nutrition	2025	10.1007/s00394-025-03793-9	The title explicitly identifies it as a SysOrg study. (PubMed)

What the Publication Portfolio Demonstrates

Taken together, these publications demonstrate the depth and continuity of the SysOrg partnership. The comparative studies reveal where territories converge and diverge; the territory-specific studies explain why those differences matter; and the methodological outputs provide tools through which future researchers can measure, compare and monitor change. This creates a scientific resource that extends beyond the original project period. Researchers can build on the comparative framework, examine additional territories, revisit the same indicators over time and evaluate whether interventions produce measurable changes in dietary behaviour, organic consumption or food-waste prevention.

What the Publication Portfolio Demonstrates

The project's knowledge was not confined to academic journals. Findings were also communicated through conferences, presentations and scientific exchange, creating opportunities for partners to present results, discuss methodological approaches and compare territorial experiences with wider research and professional communities. This dissemination created a second layer of value: publications give evidence permanence, while conferences and knowledge exchange give evidence movement. Through these channels, findings generated in one territory could enter conversations elsewhere, allowing the partnership to extend the reach of its research and strengthen connections between scientific evidence and the wider food-system community.



SYSORG - WORKSHOPS, SEMINARS, MEETINGS & CONFERENCES (2021-2024)

Knowledge exchange, scientific dissemination and partnership-based learning across Europe and North Africa

#	DATE	EVENT	TYPE	LOCATION / FORMAT	VERIFIED CONTRIBUTION
1	February 2021	SysOrg Kick-off Project Meeting	Project launch and consortium meeting	Online	Introduced the project's objectives, five case territories, four research perspectives and multi-stakeholder approach. The early project period was conducted virtually because of pandemic restrictions.
2	16-17 June 2021	Cilento Transnational Multi-Actor Workshop	Multi-actor workshop	Virtual, focused on Cilento	Brought the consortium and territorial actors together during the project's initial phase. It is explicitly listed among the activities completed before the 2022 mid-term review.
3	9-12 October 2022	Kassel Partner Meeting	Consortium and methodological meeting	Kassel, Germany	The first in-person partner meeting after pandemic restrictions. It supported closer coordination, methodological alignment and preparation of the next research and dissemination stages.
4	16-17 November 2022	Joint SUSFOOD2/CORE Organic Project Seminar	International project seminar and presentation	Brussels, Belgium	SysOrg was presented by the project coordinator, covering implementation, challenges, methodology, initial findings and planned dissemination.
5	17 December 2022	La résilience des systèmes agroalimentaires biologiques et agroécologiques au Maroc et leur impact sur la nutrition et la santé	Scientific seminar and stakeholder knowledge exchange	Faculty of Sciences, Ibn Tofail University, Kenitra, Morocco	Gathered experts, farmers, researchers and students. Discussions covered agroecology, organic production, biodiversity, climate and environmental challenges, nutrition, health and Moroccan food-system initiatives.
6	25-27 March 2023	SysOrg Partner Meeting in Cilento	Consortium meeting, territorial learning and field visits	Cilento Bio-District, Italy	Included visits to the Museum of the Mediterranean Diet, the Rareche farmers' market and investigated territorial initiatives. Partners held ten hours of project discussions and reached consensus on methodological guidelines.
7	22-23 May 2023	SysOrg Multi-Actor Workshop in Copenhagen	Stakeholder workshop, conference and study visit	University of Copenhagen and Copenhagen territory, Denmark	A 1.5-day learning and exchange event for project partners and associated territorial stakeholders. Included a visit on public food procurement (Kalvebod Fælled School) and a hybrid conference attended by 40 participants from Europe and North Africa.
8	4 October 2023	Joint Conference on Food Systems	International scientific dissemination conference	Marburg, Germany	Jointly organised by the coordinators of SysOrg, FoodLevers and FOODIVERSE. Teams presented project objectives, methods and selected results, exchanged on synergies and participated in a poster session. SysOrg was represented by 11 partners.
9	5-6 October 2023	SysOrg Partner Meeting in Witzenhausen	Scientific synthesis and consortium meeting	Witzenhausen, Germany / hybrid	Partners presented results from the four project perspectives, developed the basis for cross-case comparison and agreed on the structure and content of the resulting analytical narratives.
10	20 October 2023	Presentation of SysOrg at a Food Quality and Health seminar	Research-network seminar	Food Quality and Health network	The project and its work were presented to the FQH research community. This activity is documented in the German project reporting record.
11	5-8 March 2024	17th Scientific Conference on Organic Agriculture	Scientific conference and poster presentation	Justus Liebig University Giessen, Germany	SysOrg consortium presented the contribution "SysOrg - Organic agro-food systems as models for sustainable food systems in Europe and North Africa." Authors represented all seven consortium institutions.
12	10-11 October 2024	FACCE-JPI and Green ERA-Hub Joint Conference: Towards New Horizons	International scientific and policy conference	Berlin, Germany / hybrid	SysOrg was presented by the project coordinator. The wider conference involved more than 140 participants and project teams from over 60 research projects, with pitches, detailed presentations, Q&A and interactive exchange.



These activities strengthened the SysOrg partnership, enhanced methodological alignment, promoted cross-territory learning and ensured wide dissemination of results to scientific, policy and societal stakeholders.



Organic Food Systems as Models for Sustainable Food Systems



Workshop at the University of Copenhagen (left) and visit at the food school Kalvebod Fælled Skole (right) Photo credit: Matthiessen 2023.



On-site and online participants of the SysOrg partner meeting in Witzenhausen Photo credit: Elsner 2023.

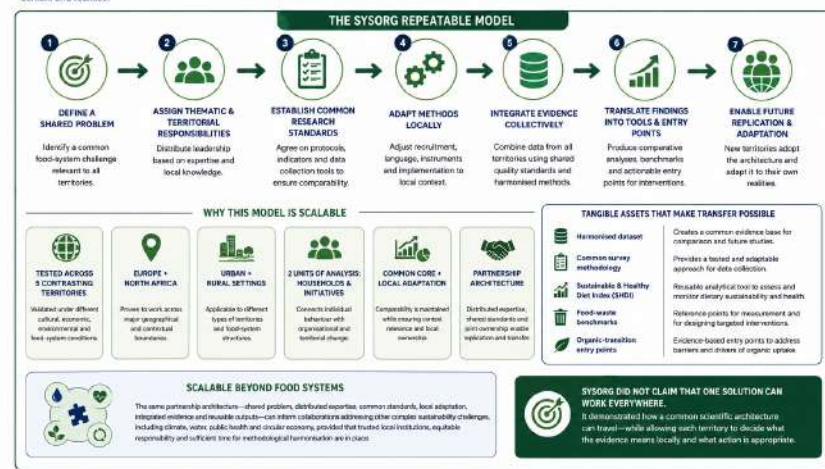
Scalability Demonstrated Through a Repeatable Model

SysOrg's scalability is demonstrated not by a promise to expand, but by the architecture already tested across five contrasting territories in Europe and North Africa. The partnership worked across urban and rural settings, different food cultures and market conditions, and two complementary units of analysis: households and food-system initiatives. The same scientific core was retained while territorial teams adapted recruitment, language, interpretation and implementation to local realities.

PAGE 7 FROM PROJECT TO KNOWLEDGE LEGACY

Scalability Demonstrated Through a Repeatable Model

The SysOrg model can be reproduced through a clear sequence that was successfully applied across five contrasting territories in Europe and North Africa. A new territory can adopt the same architecture while adapting methods, indicators and priorities to its own context and realities.



The partnership also produced tangible assets that make this transfer possible: the harmonised dataset, common survey methodology, Sustainable and Healthy Diet Index, food-waste benchmarks and organic-transition entry points. These resources provide reusable foundations rather than one-time outputs, enabling future territories to compare their conditions with existing evidence, identify intervention priorities and establish baselines against which progress can be measured.

Transferability was demonstrated within the project itself. A common research framework was applied across European and North African contexts while allowing local adaptation. In Kenitra, for example, participation combined online, face-to-face and paper-based approaches to accommodate local realities without abandoning the shared research framework. The project therefore demonstrated a practical balance between methodological comparability and territorial ownership. The underlying partnership architecture also has relevance beyond food systems. The sequence of common problem definition, distributed expertise, shared standards, local adaptation, integrated evidence and reusable outputs can inform collaborations addressing other complex sustainability challenges, including climate, water, public health and circular economy.

Sustainability Demonstrated Through Continued Use

This creates a scientific resource that extends beyond the original project period. Researchers can build on the comparative framework, examine additional territories, revisit the same indicators over time and evaluate whether interventions produce measurable changes in dietary behaviour, organic consumption or food-waste prevention. This continuity is reinforced by the fact that each partner can use the evidence within its own territory while remaining connected through shared methods, comparative interpretation and collaborative authorship. The project therefore created a structure in which local ownership and international collaboration reinforce rather than compete with one another.

The accessibility of findings through partner platforms, Organic Eprints and the CORE Organic network further supports the continued visibility and potential reuse of the project's knowledge.

What the Project Has Established and What It Has Not

SysOrg leaves behind a substantial body of comparative evidence, methodological tools and scientific outputs. However, the strength of this legacy also requires a clear distinction between what the project has demonstrated and what remains to be established. The project's evidence provides detailed insight into dietary behaviour, organic food consumption, household food waste and territorial food-system initiatives across five contrasting territories, but these findings remain situated within the specific contexts and timeframe in which the research was conducted. They provide strong foundations for understanding patterns and identifying priorities, but they do not, by themselves, establish that the same relationships or intervention effects will occur in every territory or population. A further limitation concerns the ability to demonstrate long-term change. The project generated territorial baselines, comparative indicators and analytical tools that make future monitoring possible, but the relatively defined project timeframe limits the extent to which sustained behavioural or systemic transformation can be measured directly. The continuation of publications and subsequent application of the framework demonstrates that the knowledge remains active, but continued use of the methodology should not be confused with evidence that all intended food-system changes have already been achieved. Establishing such changes requires longitudinal observation and repeated measurement over time.

The project's comparative strength also creates an important methodological boundary. Harmonisation enabled territories to be examined through a shared framework, while local adaptation preserved contextual relevance. Yet comparison across territories inevitably involves differences in data availability, cultural practices, institutional environments and local food systems. These differences enrich the analysis, but they also mean that comparative findings must be interpreted carefully. The project's evidence is therefore most valuable when used to identify patterns, differences and intervention priorities while maintaining attention to the specific conditions that produced them.

From Evidence to the Next Generation of Research

The next stage of SysOrg can build on its territorial baselines and indicators through longitudinal follow-up, revisiting the five territories to track changes in dietary patterns, organic consumption, food-waste behaviour and food-system initiatives over time. Extending the methodology to additional territories could further test the robustness of the findings while strengthening the comparative evidence base. Future research can also move from diagnosis to evaluation by examining which interventions work, for whom and under what conditions, and whether they produce lasting change.

From Research Outputs to Measurable Change

The next phase should connect measurement with action. The SHDI, territorial baselines, food-waste benchmarks and analyses of local initiatives provide tools to establish baselines, monitor progress and assess intervention outcomes. Their continued application could create a cycle of

Measure

Identify

Intervene

Monitor

Learn

The Questions That Remain

SysOrg also opens important questions for future research: how stable are the patterns identified across the five territories over time? Which barriers to healthier and more sustainable consumption can interventions effectively address? Under what conditions can organic food systems expand? Which local initiatives generate measurable territorial change? And how can household behaviour be better connected to wider food-system transformation? These questions extend the project's research agenda rather than diminish its contribution.

The Questions That Remain

The future of SysOrg lies in moving from project-based knowledge production toward cumulative, longitudinal and intervention-oriented learning. Revisiting territorial baselines, expanding comparative research and strengthening the evidence linking interventions to outcomes can turn the project's existing resources into a foundation for continued research and action. The funded phase concluded in June 2024, but the publications and continued use of its framework demonstrate an ongoing scientific trajectory. The next challenge is to determine what changes over time, which interventions work, why they work and under what conditions they can produce lasting transformation.

By connecting evidence, territories and expertise, SysOrg moved beyond the boundaries of a funded project to create a lasting foundation for understanding, measuring and transforming food systems toward greater health, sustainability and resilience.