LISBON FOOD STRATEGY

A guide to approach food systems

Alberto Serra









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Acknowledgements

This report has been authored by Alberto Serra on behalf of CCDR-LVT.

This work has been carried in collaboration and support of the Lisbon Living Lab as part of European project ROBUST. Special thanks go to the Lisbon Living Lab team composed by CCDR-LVT and IST members that supported the research and writing process, providing critical insights and guidance.

CCDR-LVT

- Alexandra Almeida
- Carlos Pina
- Linda Pereira

IST

- Beatriz Xavier de Basto Norte Romão
- Isabel Loupa Ramos
- Joana Lima
- Margarida Barata Monteiro
- Maria Rosario Partidário

The lead author and Lisbon Living Lab team acknowledge the valuable contributions of the other ROBUST team members, particularly Jessica Duncan for her supervision and Daniel Keech for his feedback.

We express our gratitude towards our colleague Mafalda Pedro for producing the land use maps.

We would like also to deeply thank all the interviewees that greatly contributed to the realization of this report.

This research has been done as part of an internship valid for the MSc Organic Agriculture and Sustainable Food Systems at Wageningen University, the Netherlands.

Photo cover of Arnaldo Aldana (top left), Megane Delhaie (top right), Annie Spratt (bottom left), Theodor Vasile (bottom right) from Unsplash.

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Abbreviations

ABAE	Associação Bandeira Azul da Europa
	European Blue Flag Association (NGO)
ADREPES	Associação para o Desenvolvimento Rural da Península de Setúbal
	Rural Development Association of Setubal Peninsula
AHRESP	Associação da Hotelaria, Restauração e Similares de Portugal
	Hotel, Restaurants and Similar Association of Portugal
AML	Área Metropolitana de Lisboa
	Lisbon Metropolitan Area (intermunicipal authority)
ΑΡΑ	Agência Portuguesa do Ambiente
	Portuguese Environmental Agency
APED	Associação Portuguesa de Empresas de Distribuição
	Portuguese Distribution Companies Association
CCDR-LVT	Comissão de Coordenação e Desenvolvimento Regional de Lisboa e Vale do Tejo
	Regional Development and Coordination Commission – Lisbon and Tagus Valley
СМ	Câmara Municipal
СМ	Câmara Municipal City Council
СМ	
	City Council
	City Council Comunidadeintermunicipal
СІМ	City Council Comunidadeintermunicipal Intermunicipal authority
СІМ	City Council Comunidadeintermunicipal Intermunicipal authority Direção-Geral de Agricultura e Desenvolvimento Rural
CIM DGADR	City Council Comunidadeintermunicipal Intermunicipal authority Direção-Geral de Agricultura e Desenvolvimento Rural Directorate-General for Agriculture and Rural Development
CIM DGADR	City Council Comunidadeintermunicipal Intermunicipal authority Direção-Geral de Agricultura e Desenvolvimento Rural Directorate-General for Agriculture and Rural Development Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos
CIM DGADR DGRM	City Council Comunidadeintermunicipal Intermunicipal authority Direção-Geral de Agricultura e Desenvolvimento Rural Directorate-General for Agriculture and Rural Development Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos Directorate-General for Natural Resources, Marittime Security and Services
CIM DGADR DGRM	City Council Comunidadeintermunicipal Intermunicipal authority Direção-Geral de Agricultura e Desenvolvimento Rural Directorate-General for Agriculture and Rural Development Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos Directorate-General for Natural Resources, Marittime Security and Services Direção Regional de Agricultura e Pescas - Lisboa e Vale do Tejo
CIM DGADR DGRM DRAP-LVT	City Council Comunidadeintermunicipal Intermunicipal authority Direção-Geral de Agricultura e Desenvolvimento Rural Directorate-General for Agriculture and Rural Development Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos Directorate-General for Natural Resources, Marittime Security and Services Direção Regional de Agricultura e Pescas - Lisboa e Vale do Tejo Directorate-Regional for Agriculture and Fishing – Lisbon and Tagus Valley
CIM DGADR DGRM DRAP-LVT EU	City Council Comunidadeintermunicipal Intermunicipal authority Direção-Geral de Agricultura e Desenvolvimento Rural Direção-Geral de Agricultura e Desenvolvimento Rural Directorate-General for Agriculture and Rural Development Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos Directorate-General for Natural Resources, Marittime Security and Services Direção Regional de Agricultura e Pescas - Lisboa e Vale do Tejo Directorate-Regional for Agriculture and Fishing – Lisbon and Tagus Valley European Union
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GPP	Gabinete de Planeamento, Políticas e Administração Geral
	Cabinet for policy and planning
ICNF	Instituto da Conservação da Natureza e das Florestas
	Forest and Nature Conservation Institute
ICS	Instituto de Ciências Sociais
	Social Sciences Institute of Lisbon University
INIAV	Instituto Nacional de Investigação Agrária e Veterinária
	Agrarian and Veterinary National Research Institute
IST	Instituto Superior Técnico
	Superior Technical Institute of Lisbon University
LMA	Lisbon Metropolitan Area (geographic area)
MARL	Mercado Abastecedor da Região de Lisboa
	Wholesaler Market of Lisbon Region
PNPAS	Programa Nacional para a Promoção da Alimentação Saudável
	National Program for the Promotion of Healthy Eating
PROVE	Promover e Vender
	Promote and Sell (veg box scheme)
RRN	Rede Rural Nacional
	National Rural Network
RUAF	Resource Centres on Urban Agriculture
SFSCs	Short Food Supply Chains

Abstract

Food strategies are emerging in multiple parts of the world improving existing food systems from farm to fork. Lisbon, as other world capitals, has a vibrant foodscapewith a rich local gastronomy. Despite this, various actors involved in Lisbon food system recognize the necessity to improve the sector. Sustainability and health concerns in fact opens up for the development of a food strategy.

As part of a European project investigating urban-rural synergies, a research was conducted about the development of a potential food strategy in Lisbon Metropolitan Area. The research entails semi structured interviews of farmers, distributors, administrations, agencies and other organizations about how they perceive an improvement of the food sector.

As result, this report shows how people involved in Lisbon food system share multiple concerns such as food insecurity, long food supply chains and food waste and how they intend to address them. In doing so, it hints at actions about boosting agricultural production, improving the spatial distribution of food, creating multi-stakeholder governance platforms, education programs and developing promotional and awareness campaigns. The report further presents some of the opportunities and challenges that would emerge from the development of a strategy. It concludes briefly suggesting future steps to undertake the paths towards working together for a Lisbon sustainable food system.

1. Introduction

Food systems mutate continuously. New and traditional modes of production and distribution address the need to satisfy ever changing consumption patterns and lifestyles (Kearney, 2010). Besides, concerns such climate change (FAO, 2015; Vermeulen, Campbell, & Ingram, 2012) and sustainability (Oosterveer & Sonnenfeld, 2012) among others press on societies to develop adequate responses. To this extent, people relate to food in the most different ways playing different roles in the overall reproduction of food systems. Food in fact besides being nourishment, can represent a development tool, an economic value, an environmental impact, cultural heritage and much more (Vivero Pol, 2013) that can and need to be a mean of change to address environmental and societal issues.

Many cities and regions develop food strategies (Consejería de Salud, 2018; Good Food Brussels, 2015; Greater London Authority, 2018; Greater Sudbury Food Policy Council, 2017; Metro Vancouver, 2011; Toronto Publish Health, 2018) to improve existing food systems by adopting different ranges of activities. Lisbon as many other cities has a vibrant foodscape. Many vans and trucks everyday bring substantial quantities of food inside the city from the metropolitan area and beyond to supply restaurants, canteens, outlets and others that ultimately reach people in urban areas. Lisbon food system involves large amounts of people from production to distribution but also devoted scholars and organizations as well sectorial institutional bodies. Despite the numerous initiatives in Lisbon Metropolitan Area (LMA) there is no food strategy. Nevertheless, Lisbon food system as such presents the opportunity for a better articulation in relation to food access, supply, procurement, waste, health and sustainability.

In relation to this, Comissão de Coordenação e Desenvolvimento Regional de Lisboa e Vale do Tejo (CCDR-LVT) and the Instituto Superior Técnico (IST) collaborate together in the ROBUST project to investigate over rural-urban synergies (Robust, 2019). Within this project it has been possible to investigate over the perception of people involved in the food system towards the potential development of a food strategy in Lisbon. This research comprises 31 semi structured interviews with representatives of the actors involved in the food supply chains and beyond. As result it has been possible to compile how actors conceive a food strategy and what steps can be taken to initiate it.

The first part of this report further introduces food strategies elsewhere, presents the context of Lisbon food system and policies, and it concludes by providing the research framework and a brief description of the interviewees. The second part contains the main findings emerged from the interviews grouped per priorities, vision clusters, governance, benefits, challenges and scale. The last part summarises the main results and suggests potential actions towards the development of a food strategy.

1.1 Food strategies

A food strategy can be considered a document that identifies actions to enhance food systems (Greater Sudbury Food Policy Council, 2017). Such actions are meant to address specific issues of the food systems at city level. Cities have in fact a prominent role in leading sustainable transitions (Barber, 2013; Moragues-Faus & Morgan, 2015). Milan Urban Food Policy Pact for

example acknowledges the role of cities in advancing measures towards enhancing food systems and seek voluntary compliance to good food practices (Milan Urban Food Policy Pact, 2015). Similarly, the C40 network connects cities to commit to climate action (C40Cities, 2017). Nevertheless, cities also rely on neighbouring regions for the deployment of their food systems, which need to be considered and potentially included in the development of food strategies. Several cities developed regional approach to their food strategies as presented in the examples below.

Examples of regional food strategies

In Vancouver, the Metro Vancouver Board adopted the Regional Food System Strategy to foster a transition towards resilient, sustainable and healthy food system by increasing food production, improve farmers financial viability, encourage healthier diets, ensure access to nutritious food, reduce waste and protect ecological resources (Metro Vancouver, 2011). The strategy addresses various steps of the supply chain taking in account the cultural and historical structure of the region. The strategy comprehends series of actions performed by different stakeholders and local administration to undertake in a 3-5 years period (Metro Vancouver, 2016).

In London, the Greater London Authority developed the London Food Strategy that sets out actions aimed to advice the mayor, food partners and citizens. Strategy's objectives for good food in the city include food insecurity reduction, increase availability of healthy food both from private businesses but also in the public sector, enhance wellbeing of pregnant women and children, support urban agriculture and reduce environmental impacts deriving from food (Greater London Authority, 2018). The strategy links to other health, economic, environmental, tourism, cultural and inclusion strategies.

Similarly Good Food Advisory Council launched the Good Food strategy in Brussels to increase local sustainable food production, support the transition towards sustainable food offer, develop a food culture, assure implementation governance and reduce waste (Good Food Brussels, 2015). The strategy includes activities such as vegetable gardens in schools, facilitation of urban agriculture, support of young farmers, collective gardens, soil preservation and waste prevention but also the use of innovative techniques such as aquaponics. The strategy is voluntary and encourages partners to participate (Good Food Brussels, 2015).

From these examples it is possible to acknowledge how cities respond to their contextual concerns through these strategies. Such strategies in fact also entail different initiation processes. Some are initiated from grassroots actions whereas others commenced from institutions. Nevertheless, most strategies see the participation of a diverse range of actors that are directly or indirectly involved in the food systems. For this reason it is important to acknowledge that each governance model has its own implications (Davies, 2017).

To this regard, there is no one way to go to develop a strategy but rather several paths to create food strategies. The Food and Agriculture Organization (FAO) in collaboration with the Resource Centres on Urban Agriculture (RUAF) developed a City Region Food Systems program to assists local governments in identifying bottleneck and opportunities to improve food systems (FAO, 2020b). Within this program a toolkit to make food systems more sustainable

was created to provide material and information on how to map food systems, collect data, analyse information and engage policymakers and other stakeholders in the design of sustainable food systems (FAO, 2020a). Similarly the UK Sustainable Food Cities network help developing cross-sectorial partnerships to explore practical solutions and develop best practice on key food issues in the United Kingdom (Sustainable Food Cities, 2020).

This section showed how food strategy can be conceived with some practical examples. Nevertheless, the development of a strategy is strictly related to the context where it unfolds, making necessary to understand what features and needs are to be addressed to improve food systems. The following section will present a brief overview of LMA in relation to its regional food system.

1.2 Research context

LMA is home of about 2.8 million people, including 18 municipalities, and represents an important economic pole for the country and consumption basin, accounting for 27% of the Portuguese population (European Commission, 2014). LMA and surrounding territories present a diverse land use characterized by high concentration of the population located in built areas along the Tagus riversides that decrease towards more internal areas of the region as shown in figure 1. Agriculture land covered about 25% of LMA (CCDR-LVT, 2017), contributing to about 2,5% of the Portuguese used agricultural surface (INE, 2018d) with most agricultural land used located in the municipalities of Palmela, Montijo, Vila Franca de Xira, Mafra but also in Sintra, Loures, Alchochete, Setúbal and Sesimbra (INE, 2018d). Neighbouring territories of Oeste e Leziria do Tejo¹ similarly have extended agricultural areas (INE, 2018d) that cover 50% and 30% respectively (CCDR-LVT, 2017). Although agriculture plays a relevant position in these areas, LMA experienced (1995-2007) an increase of built areas at the expenses of agricultural land (CCDR-LVT, 2017). Major crops produced in LMA in 2018 included cereals, vineyards, crops for industry, potatoes and forage crops although fresh fruits, citrus fruits and olives are grown but in minor quantities; horticultural crops and fruit berries were not quantified (INE, 2019). In terms of other food products, LMA contributes to 6% of national meat production (INE, 2018a), 4% of national milk production (INE, 2018c), mainly from cows and 23% of national fish captured mainly deriving from Sesimbra fisheries (Agricultura e Mar, 2019; INE, 2018b). Nevertheless in 2016 food imports exceeded food production in LMA (CCDR-LVT, 2019b) although it is important to note that not all the food imported in Lisbon is to be allocated to the resident population, hence to this extent it is important to understand Lisbon as logistic centre where food is also distributed to other parts of the country. In contrast, at national level, in 2015 food imports in Portugal accounted for about 3 billion US\$ mainly from Spain, France, Germany, the Netherlands and Italy (World Bank, 2015b) against 3,5 billion US\$ exports mainly to Spain, France, Angola, UK and United States (World Bank, 2015a).

¹ Oeste e Leziria do Tejo are two distinct subregions neighbouring Lisbon Metropolitan Area (LMA)



Figure 1 Land use map (Area Metropolitana Lisbona, Oeste, Lezíria do Tejo, Medio Tejo and Alentejo) produced by CCDR-LTV in 2020 with data from Land Use and Land cover (COS) and CORINE Land Cover (CLC) produced by General Direction of the Territory (DGT) in 2018 (DGT, 2018)

Although food system can be mapped and operationalized in function of a strategy (Fonseca &Hernandez, 2017), it is challenging to define the limits of Lisbon food system. In terms of supply chains, different modes contribute to distribute food across the population. Food systems are comprised of different scales and levels, from short food supply chains to more complex global chains, which entail different activities (Parsons, Hawkes, & Wells, 2019) encompassing actors and activities involved in the production, processing, distribution, consumption and disposal of food (FAO, 2018). A major way of supplying food in LMA occurs through large distribution operators and supermarkets (Fraqueza & Barreto, 2017). In addition, food goes from wholesalers to retailers and ultimately to customers. In the case of fruit, vegetable and fish the supply is mostly carried at Mercado Abastecedor da Região de Lisboa (MARL), the regional wholesaler market. Within Lisbon, several traditional markets supply urban dwellers (Guimarães, 2019) while 'mercados Agrobio' permit local farmers to sell organic products (Agrobio, 2019). Besides conventional food supply chains, there are many other food initiatives that provide food to consumers in the LMA such as veg box schemes like PROVE that promote food from local producers (PROVE, 2019), Fruta Feia that aim to reduce waste by selling misshaped food (Fruta Feia, 2020) or Re-food that intercepts food that would be otherwise wasted and deliver it to people in need (Re-food, 2020) but also fish boxes like Cabaz do Peixe in Sesimbra (AAPCS, 2020). Besides food production and distribution there are multiple other initiatives that somehow influence food systems. In terms of food education for example, several municipalities such as Torres Vedras, Loures, Olivais in Lisbon are engaged in food programs that see the introduction of organic food in schools as well education activities about food nutrition and sustainability. Similarly, Agrobio provides support to entities to disseminate knowledge about organic agriculture. Lisbon municipality regulate the development of urban gardens and the legalization of informal farming in the city (Madeira da Silva & Monte, 2014). Almada municipality developed a program for the promotion of a traditional fishing method. Several NGOs are also active on the food front. ABAE (Associação Bandeira Azul da Europa/ European Blue Flag Association), has a project Eco Escolas where schools create gardens linked with cooking activities (Eco-Escolas, 2018). ACTUAR a development NGO develop several projects on the right to food approach and knowledge dissemination projects (Actuar, 2019a). The network Alimentar Cidades Sustentáveis share relevant information, events and good practices that stimulate and strengthen collaboration among the actors, sectors and territories of the food systems in Portugal (Alimentar Cidades Sustentáveis, 2019). There are however many other relevant food initiatives taking place in LMA that did not particularly emerge over the course of this research.

At national level there are several institutions such as the Direção Regional de Agricultura e Pescas (DRAP), Direção-Geral de Agricultura e Desenvolvimento Rural (DGADR) and Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos (DGRM) that address different aspects related to the food system such as food, farming and fishing policies. To this extent it is necessary to mention the presence of other strategies that address food. The Programa Nacional para a Promoção da Alimentação Saudável (PNPAS) (PNPAS, 2019) developed by the Health General Direction , it aims to improve the population nutritional state and promoting the physical and economic availability of food for healthy eating (DGS, 2019). This program derives from the Estratégia Integrada para a Promoção da Alimentação Saudável (EIPAS) which is a document that reflects the opinions of multiple ministries approved by the government

(DGS, 2016). The strategy proposes measures: to modify the buying environment by changing food availability and promoting the reformulation of food categories, with auto regulation of the food industry; improve access to information for consumers to make more sustainable food choices; to promote and develop literacy and autonomy to exercise sustainable consumption choices; and lastly to promote innovation and entrepreneurship towards the promotion of sustainable eating (DGS, 2016). Another relevant strategy related to organic agriculture is the Estratégia Nacional para a Agricultura Biológica which has an action plan for the production and promotion of organic agricultural food and products (DGADR, 2017). Regarding food waste there is the Estratégia Nacional e Plano de Ação de Combate ao Desperdício Alimentar developed by a national commission to fight appositely food waste, composed by representatives of regions and public administrations in accordance with international and European frameworks. The strategy present a diagnostic of the waste sector, defines objectives and an action plan to prevent, reduce and monitor food waste (Comissão Nacional de Combate ao Desperdício Alimentar, 2017). In terms of territorial development the Programa Nacional da Política de Ordenamento do Território (PNPOT) encourages the development of spatial planning activities that transpose other sectorial programs related forests, food, agriculture and nature conservation among others but also strengthen rural urban articulation and valorise and preserve soil, inverting degradation and promoting sustainable agricultural use (DGTerritorio, 2018). The improvement of the food sector is in fact considered a priority for transition towards a more circular economy in the region of Lisbon and Tagus Valley (CCDR-LVT, 2019a). It is important to note how these are national strategies, some of them developed at ministerial level while other see the participation of other segments of society or businesses. These strategies address specific aspects of the national food system but do not specifically address local dynamics, making room for the development of regional and municipal strategies. Besides these strategies several other projects on food, rural-urban dynamics, demonstrate the interest in addressing the future of food in a sustainable optic. Although many activities in relation to food are taking place in Lisbon, the city does not have a comprehensive food strategy (Eurocities, 2017).

This section helped to picture the current food context of LMA coupled with major policies related to food. The following section explains how this research has been set up and briefly describes the interviewees.

1.3 Research framework

As mentioned earlier, this research has been carried in order to understand what efforts need to be undertaken to initiate a food strategy in LMA. This research was originated as part of the project ROBUST that investigates about rural-urban linkages in several European cities by academic and governmental institutions. Within this project, the Portuguese partners in Lisbon (CCDR-LVT and IST) decided to investigate about the potential development of a food strategy for LMA.

Based on key aspects that characterise food strategies elsewhere, a questionnaire has been created to investigate how the actors involved in the Lisbon food system perceive the potential development of a food strategy. The questionnaire (attached in the annex) included queries about stakeholders' relation to food, their vision and focuses for a food strategy, actors to

involve, platforms and actions to adopt, benefits and challenges and the scale of such strategy. In general, interviews aimed to provide insights about how stakeholders foresee the potential development of a food strategy, particularly in relation to its contents and governance.

The information obtained from the interviews has been compiled in priorities, vision's clusters, benefits, challenges and scale. These clusters have been elaborated and transposed in the report. The responses on governance have been analysed quantitatively and its results have been transposed on graphs and elaborated with additional information provided by interviewees. Based on these results this report has been redacted.

1.4 Interviewees

In order to perform this research, representatives of different actors involved in the food systems were contacted including producers, distributors, consumers, NGOs, researchers, environmental agencies, agricultural institutions and local administrations working at different levels as portrayed in figure 2. Given the four months time frame, this has been done by contacting representatives of actors, a complete list of the entities contacted is included in the annex. Additionally, a snowball sampling has been adopted to interview entities suggested by the interviewees. Besides farmers have been contacted at organic and wholesaler markets.

Producers	Distributors			
Maria Esperança Augustin	ADREPES			
Carlos Fidalgo	Fruta Feia			
Estevao Raposo	• MARL			
Hélio Serra	APED			
Cidália Mata	AHRESP			
AGROBIO (association)	 José Oliveira (private distributor) 			
Institutions	Local Administrations			
DRAP LVT	Lisbon city council			
• DGADR (RRN)	Torres Vedras city council			
• GPP	Almada city council			
• ICNF	Sesimbra city council			
• APA	Loures city council			
• DGRM	• AML (Lisbon Intermunicipal authority			
• INIAV	representing 18 municipalities)			
Organizations	Academia			
• ACTUAR	Universidade de Lisboa/Colegio F3			
• ABAE	Universidade Nova de Lisboa			
• ERT - RL				
Fundação Calouste Gulbenkian				
Figure 2 List of entities interviewed (see abbreviations list on page iv)				

However, multiple fishermen and consumers organizations either declined or did not respond to the request of collaboration. These actors are deemed central from the conception of this study; despite the endeavours to engage them it has not been possible to interview them. This section further presents the interviewees that collaborated in this research, indicating their relevance towards the aims of this research.

Producers (at exception of Agrobio) were contacted at regional wholesaler market MARL, in pavilion A3 where local farmers sell their products to distributors and consumers. Farmers were introduced to the research by MARL personnel on the spot. Upon agreement farmers were questioned. Farmers in this research represent the productive sector. In contrast, Agrobio is the national association representing organic farmers.

Distributors include different types of actors such as short food supply chains, NGOs, wholesalers and distributor representatives. Associação para o Desenvolvimento Rural da Península de Setúbal (ADREPS) is a development association responsible for the implementation of PROVE, a veg box scheme where farmers of a certain areas pack their products and deliver directly to consumers. Fruta Feia is a cooperative operating a veg-box scheme that offers misshaped fruit and vegetable that do not meet commercial standards. Associação Portuguesa de Empresas de Distribuição (APED) is a retailer association representing food distribution sectors including major national supermarkets chains. Associação da Hotelaria, Restauração e Similares de Portugal (AHRESP) is an association representing restaurants and hotels promoting the adoption of good practices, developing promotional programs and providing legal protection. MARL is the regional wholesaler market where producer and distributors exchange food.

Several institutions that address specific aspects of the food system were also interviewed. DRAP is a service from the agriculture and sea ministry that formulates and executes policies about agriculture, rural development and fishing. Similarly, DGADR contributes to the execution of policies related to agricultural regulations, diversification of rural areas and territorial management. The Gabinete de Planeamento (GPP) is the cabinet office supports the ministry of agriculture developing and planning policies for agriculture. Agência Portuguesa do Ambiente (APA) is the Portuguese environmental agency that proposes, develop and support the management and participation of environmental and sustainable development policies (APA, 2020), particularly APA is responsible for water and waste management. ICNF is the national institution for nature and forest conservation which is also responsible for controlling agriculture activities in conservation areas. DGRM is a national administrative service responsible for the development of maritime safety and services including fishing policies from aquaculture, fish processing and the preservation of marine resources. Instituto Nacional de Investigação Agrária e Veterinária (INIAV) is the national institute for agrarian and veterinary research which serve as state laboratory, for conservation of genetic resources and to develop research innovation for agro food and forestry. Each of these institutes addresses different aspects of the food system either in form of policy development and application or research.

Several local administrations were also contacted for this research. Administrations chosen represent municipalities located in the north (Grande Lisboa) and south (Península de Setubal) of LMA but also outside like in the case of Torres Vedras. Each municipality has different projects on food. On top of the municipalities, the inter-municipal authority of Lisbon Metropolitan Area (AML) was also interviewed which purses the interests of the 18

municipalities it represents. Within local administration, mostly referents for spatial planning were contacted as they previously participated in the ROBUST project.

Multiple other organizations that indirectly address food systems were also interviewed. ACTUAR is a NGO promoting development, fighting poverty and protecting human rights with a specific focus on food adopting a right to food approach (Actuar, 2019b). ABAE is another NGO that work with 200 schools across Portugal with projects related to gardening and sustainable food education. The Entidade Regional de Turismo - Região de Lisboa (ERT-RL) is the responsible for tourism development in the region of Lisbon; they participate in multiple projects that include the promotion of local gastronomy. Fundação Calouste Gulbenkian is a foundation that aim to improve quality of life through arts, beneficence, art and education; they are open to sponsor new collaborations and managing projects, currently they are involved in a project of the Ellen McArthur foundation about circular economy of food in the cities (Fundação Calouste Gulbenkian, 2019).

Besides, producers, distributors, administrations and organizations also members of the academic community were contacted. Rosário Oliveira, an architect from the Instituto de Ciências Sociais (ICS) of the Universidade de Lisboa was interviewed. She developed an extensive work on the analysis and diagnosis of Lisbon food systems (Rosário Oliveira, Amâncio, & Fadigas, 2017; Rosario Oliveira & Morgado, 2002; Rosario Oliveira, Morgado, Martinho, & Mauricio, 2014) and also initiates the Colégio F3, a group to advance knowledge on trans disciplinary areas of food, forests and farming (Colégio F3, 2016). Cecília Delgado, researcher at Universidade Nova was also interviewed as an expert on Urban Agriculture in the Portuguese context (Delgado, 2017). Their knowledge on the Lisbon food system and Portuguese urban agriculture feeds on better understandings to conceive a food strategy.

Having now presented the state of Lisbon food systems and the research set up, the next part of the report dives into the results emerged from the interviews.

2. Contributions for a Lisbon food strategy

This part of the report presents the information obtained from interviews divided par priorities, vision's clusters, governance, benefits, challenges, scale and concludes with reflections.

2.1 Food strategy priorities

The quest for a food strategy in LMA is differently shared by most people interviewed. Interviewees indicated preferences based on their knowledge and relation to food. The preferences expressed are to be understood as priorities that need to be included in a potential food strategy. The priorities are portrayed in figure 3.

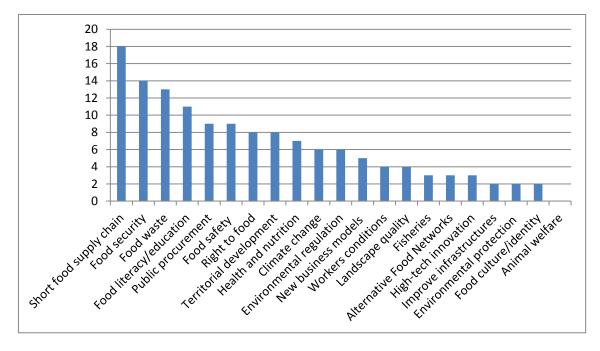


Figure 3 Food strategy priorities preferences

2.2 Vision clusters

After interviewees have been questioned about their priorities for a food strategy, they were asked for their vision for a food strategy. In doing so they portrayed diverse range of ideas. To facilitate the understanding of such ideas, they have been combined in four main clusters. The clusters broadly hint at boosting agricultural production, stimulating sustainable food distribution, developing food education and promotion programs and valuing waste. These clusters have been further elaborated in the sections below.

Boosting agricultural production

Agriculture represent an important activity in LMA, although not all food consumed in Lisbon is produced in loco. The ideas emerged from interviews in relation to agriculture are to ameliorate farmers conditions, boost production particularly in urban areas and promote organic agriculture. Such concerns feed into an optic where an increase of food production in LMA would be beneficial for local consumption.

In terms of farmers' conditions, farmers are often requested to comply with regulations, rules for public procurement but also face the need to modernize, undertake sustainability measures which often include financial and technological means which are difficult to access. To this extent a food strategy could provide farmers with funds and technical support to keep them viable in the market and attract newcomers.

Farming also occurs in more urban areas with formal and informal food production. Delgado (2017) identified multiple urban agriculture initiatives concentred in LMA (Delgado, 2017) and many more informal 'hortas' can be spotted in the suburbs of the city. Urban agriculture has the potential to feed part of the population, both through commercial farming but also self-growing. Although the potential of urban agriculture is not yet fully exploited, respondents claim that it would be beneficial to make more land available, particularly public and private

abandoned land. The dedication of more land to agriculture could be part of future territorial planning measures.

Organic food products are requested to supply schools and public canteens within existing projects. Hence, organic food might be scarce in comparison to the need to supply canteens but also to extend its accessibility for a broader range of the population in LMA. An increase of organic production can therefore be considered necessary. Organic agriculture and other regenerative agricultural practices would contribute to protect soils and enhance their fertility while decreasing the impacts of chemical inputs, creating more resilient farming systems.

- Provide technical and financial support to farmers
- Incentivize urban agriculture
- Support organic farming

Stimulate sustainable food distribution

Food distribution, as mentioned earlier, occurs at different levels, from farmers to distributors to retailers, from farmers to retailers but also from farmers to consumers directly. Distribution mainly entails moving food but also other activities such as managing transportation, packaging and providing information.

A food strategy could play an important role in the management of such activities for instance through spatial planning, incorporating food concerns in the design of territorial arrangements that facilitate the circulation of food through LMA. This can be done by identifying food production poles and distribution nodes in a way to enhance food infrastructures to facilitate food flows.

Another way of enhancing distribution would be to support some existing SFSCs mentioned above and develop new ones. There are in fact multiple initiatives across the region characterized by direct relation between farmers and consumers. An idea might be to address the needs of these initiatives but also consider the development of similar initiatives which in turn also promote local food consumption. Another idea would be to develop other local markets along the lines of the 'mercados Agrobio' in order to provide citizens with organic food from local producers but also promoting the role of farmers in the area.

According to farmers, distribution could be improved by ameliorating the distribution infrastructures but also reducing time between harvest and acquisition. Another important concern for them is to make arrangements that tackle unequal power relations between producers and distributors (Dobson, 2003).

Furthermore food international imports could be reduced favouring the interchange of available food products within the country. At the same time it is possible to optimize the ways food is imported and exported, making it more sustainable in terms of efficiency, energy use and environmental impacts.

An E-commerce platform to exchange food could also play a new modern interface between producers and consumers. Such tool could customize their relation by also providing further

information about food provenance and sustainability but also nutritional values and cooking suggestions.

Public procurement emerged as one of the main areas a food strategy could focus on. Several stakeholders, including municipalities and NGOs perceived that is key to change the rules and procedures for public procurement at municipal level. Concerns were expressed regarding the low price per meal, often around 1 euro, the criteria of the tender processes toward lower prices and the absence of sustainability criteria in the choice of food products. These concerns were indicated important for a transition towards more sustainable meals in schools but also other canteens such as in public offices. Torres Vedras municipality champion a food program which is boasted by several interviewees. Their program managed to supply 4000 schools' meals per day prepared by municipal kitchens and social institutions with local products. Meanwhile other municipalities and organizations such as Loures, Agrobio and ABAE have similar programs to provide organic food to pupils but also to incentivize school to do more about food sustainability. These initiatives are examples of successful public procurement processes that can serve as inspiration to create similar initiatives that can be at the frontline of a potential food strategy.

- Improve logistics
- Support Short Food Supply Chains (SFSCs)
- Adjust public procurement procedures

Education and promotion

During the interviews it was also felt that people have different understanding of what food is. Farmers conceive their relation to food in terms of own production and consumption. Food related organizations such ACTUAR, ADREPS have a more holistic approach, hence comprising diverse implications of food systems. Sectorial representatives such as AHRESP and APED are also aware of the implications of whole supply chains but might be more concerned about the issues related to their associates. Some municipalities are concerned about the spatial distribution of food. Nevertheless, it is necessary to have a shared understanding of food to build a common strategy.

In this regard, food education can be a greater contributor. Food literacy and education in fact have also been indicated as one of the top priorities for a food strategy. Different actors stressed the need to educate people about food. ABAE highlighted the importance of providing food education not only to pupils but also educating parents about sustainable food. Similarly, in the municipality of Torres Vedras, they want to supplement their public procurement process with educating new generations of children and try to reach their families. Farmers claim consumers should eat healthier, particularly fresh vegetables. Following these suggestions, it would opportune to develop food education programs in all LMA schools. Such programs should focus not only on the nutritional aspect of food, but let also understand people the implications of producing, distributing and dispose food. Besides school education, an initiative suggested would be to provide specific trainings to food operators about different conceptions of food, but also about sustainability and innovation. INIAV, as national research institute emphasized the need to increase agrarian research and

innovation while sharing knowledge with food operators as well the rest of society. These initiatives could contribute to a broader understanding of food by the actors that will be involved.

An important aspect emerged related to food education is the promotion of local food products. Interviewees propose multiple ways to valorise the local gastronomy. Touristic and environmental organizations such as ERT and ICNF could provide, in different settings, information to people about food products and their sustainability. Other ideas emerged for the promotion of local gastronomy hint to the development of promotion programs. One idea is to develop a concept to promote Portuguese gastronomy similar to the model of Eataly (Eataly, 2019) which is a brand, a food hall, a market concept reproduced in several world capitals. This might represent an opportunity to showcase regional products, to promote them but also to export them. Similarly, activities such as stamps and certifications can be undertaken by actors within the food strategy. Other public awareness campaigns around food and sustainability also need to be considered.

- Food education programs for children and adults
- Farmers' trainings on sustainability and innovation
- Valorization of local gastronomy
- Awareness campaigns towards sustainability

Value waste

Food waste is also considered another top priority for a food strategy. Waste occurs at multiple stages of the supply chain. Many of the respondents recognized that waste need to be reduced both preventing food from being disposed and making use of the food eventually wasted through composting. Waste prevention can be done by intercepting food from being wasted as RE-FOOD and Fruta Feia do, where food otherwise wasted is redirected to communities. Waste reduction campaigns could be also employed to instruct food operators and consumers about how waste could be minimised during distribution and consumption. Another idea is to reutilize waste compost as input for agricultural production in an optic of circularity. To this extent waste reduction and waste value could be also linked to other national waste strategies, particularly developed by APA.

- Reduce waste
- Separate bio waste
- Reuse waste

This section elaborated on the main priorities emerged in the interviewees as described by the respondents. Next section will focus on what governance model are considered appropriated for the strategy.

2.2 Governance

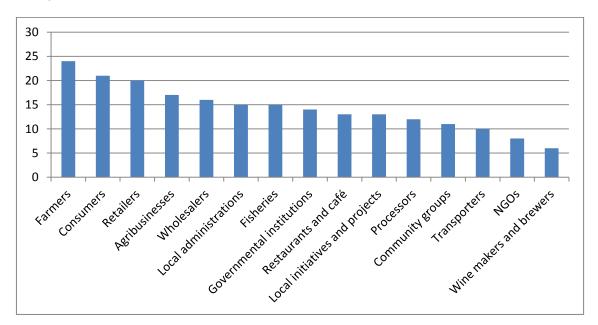
Besides envision what a food strategy might entail it is equally important to think of which actors should be involved, what platform and what types of actions a strategy should entail.

Stakeholders

From the responses of the questionnaire, it emerges that people feel different ranges of actors should be included. Most respondents indicated farmers, retailers and consumers. Secondly agribusiness, fishermen, wholesalers, local administrations and initiatives prevailed. Thirdly processors, transporters, restaurants and cafes, governmental institutions and community groups were indicated. Lastly, wine makers, breweries and NGOs were the ones expressed with fewer preferences. Few interviewees declared that wine producers do not necessarily need to be involved as they already have a fluent market, although this might not justify the exclusion of such group. Other actors that were suggested include: educational institutes, nutritionists, catering companies, children, health sector, food waste NGOs, environmental NGOs and other national platforms such 'Alimentar Cidades Sustentáveis'. Figure 4 below shows the preferences expressed by the respondents.

Four of the respondents indicated all actors mentioned in the questionnaire should participate in a food strategy. Nevertheless, as ACTUAR affirmed, actors within the food sector have different power, which is crucial to recognize and take in account. This can be done by institutionalizing participation and assure balanced representations. In this way it is important the vulnerable groups like family farmers are the centre of the discussion not to legitimise decisions but rather to actively participate in the formulation and evaluation of public policies.

Despite the inclusion of diverse actors, it is important to acknowledge how they work in different ambits of the food systems at different level of aggregation such as municipal, regional and national, making necessary to develop arrangement to assure representation at multiple levels.



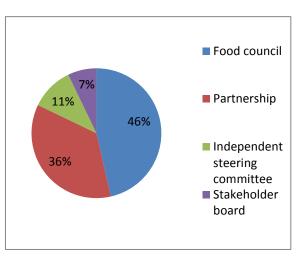


Governance platform

Based on literature review of food strategies governance structures (Davies, 2017), four main types of governance platforms from other food strategies across the world were proposed to the interviewees: food council, partnership, independent steering committee or stakeholder board. Food council refers to a governmental body with representatives of the actors involved in the food systems. A partnership indicates a structure form with food operators, institutions and other organizations. An independent committee stand for an independent group created for a specific purpose and a stakeholder board refers to a group of food operators.

About half of the respondents indicated a food council as an appropriate platform for the development of the food strategy whereas about a third indicated a partnership between public institutions, organizations and business while the rest either chose stakeholder board or independent steering committee. Figure 5 portrays the preferences of the interviewees over different governance platforms.

To this regard Lisbon municipality deployed the idea to have a food board to develop a Figure 5 Food strategy governance preferences food strategy based on the transport board



model established for the development of the metropolitan transport card. AHRESP suggested having an operational and advisory council based on the national waste council model.

When asked about who should initiate or lead the process, most respondent had difficulties answering or discarded the question. However, out of the responses obtained, several referred to regional and inter-municipality authorities such as CCDR-LVT and AML. However, AML stated that does not currently have any institutional connection on food theme but rather works on transport, strategic and spatial planning with some linkages to energy and education. Furthermore, CCDR-LVT would result more appropriate to lead the initiation of a strategy as it develops regional plans and support municipalities in relation to resource managements, environmental issues and strategic planning among others.

ACTUAR suggested multi stakeholder food councils at national, regional and municipal level. A multi stakeholder governance would in fact assure the representation of various actors at different levels. The regional level could serve as bridge between national and municipal level but also as articulator of regional entities. At ministerial level, different ministries including agriculture, economy, health, environment and education can be involved and contribute to different degrees such as the provisions of financial and technical support. Further, at municipal level, it is strictly necessary to understand the role of communities of producers and consumers as the diffusers of a strategy rather than the recipients. Ideally regional strategies could be connected to other strategies in other Portuguese regions favouring the exchange of local products from an area to another. To this extent a food strategy in LMA could represent an example to adopt in other regions.

AML hinted to a model based on the vision of 'Atlantis' deriving from the works Plato where outer territories serve to grow food for the inner city. In the case of Lisbon this could be translated in the 'alface' model² where the areas around Lisbon serve to grow for the more urban areas, as it apparently already occurred in the past, hence creating synergies between different areas within the region.

Action type

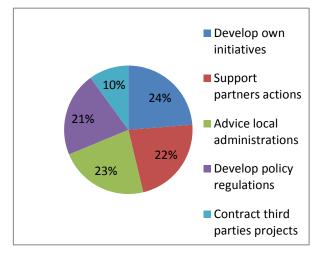


Figure 6 Food strategy governance actions preferences

For what regards the type of actions, respondents favour a food strategy that develop its own initiatives, secondly a strategy that advise local administrations and supports partners' actions but also develop policy regulations. Lastly people indicated with fewer preferences to contract third parties' projects. Figure 6 shows the percentages of preferences expressed. Other options added by respondents include save the soil, spatial planning, integrate policies, sharing good practices, funding start up, monitoring and evaluation (accountability), involve people and auto regulation.

Rosário Oliveira from Colégio F3 affirmed that a strategy should be inspiring and not constraining intending to have a framework where each actor can develop their own strategy. Duarte Mata from the municipality of Lisbon claimed instead that a strategy could lean towards more limits to construction. An instrument for that would be an incremental taxation on unused land to favour land use. He suggested that this could be coupled with a platform to sell and lend land along the lines of 'bolsa da terras' (DGADR, 2012), which is a national instrument to display land available across Portugal. Cristina Carrola from APA suggested that there should be more coordination between the actors involved in the food system, municipalities particularly, as often entities sometimes do the similar initiatives and communicating more would allow to be complementary rather than potentially overlap. ABAE, who collects good practices from municipalities, suggested that there are already many good activities that could be undertaken by sharing practices. MARL proposed that more funds should directed to start-ups, as they often miss financial support to grow. ACTUAR affirmed that is crucial to monitor and evaluate the strategy for it to be accountable. APED and AHRESP discarded developing new policy regulations but rather either adjust existing laws or develop self-regulations for the associates within the sector.

² Lisbon inhabitants are called 'alfacinhas' (little lettuces) for various reasons. In this characterization of the city as a lettuce, the outer leaves (outer LMA) feed the centre of the plant (inner LMA).

This governance section proposed a food council as platform to articulate the interactions with actors at different levels while it also indicates that a wide range of actor should participate in order to purse various types of actions.

2.3 Benefits and challenges

Interviewees were asked about potential benefits and challenges from the development of a food strategy. However, without a clear strategy it was difficult for them to provide specific answers. This section provides an account of the benefits and challenges perceived by the interviewees.

Benefits

Multiple benefits could emerge for different aspect of the food system. The availability of more land and funds for food production would represent an incentive for existing and new farmers, hence assuring sales to producers while supplying fresher food to consumers. Farmers and fishermen would also have representation in the development of a strategy that address them, hence developing suitable arrangements for the productive sector.

A food strategy that aims to shorten food supply chains would see producers nearing consumers, not only in relation to territorial proximity but also in terms of freshness. A strategy could also provide educational services to distributors such as agrarian and business trainings.



Figure 7 Food strategy perceived benefits

For what concerns consumption, consumers could benefit from education programs on food, sustainability and farming, particularly for children at schools but could also entail trainings for adults and food operators. In doing so, such strategy could also contribute to a common understanding of food as public good (Vivero Pol, 2015). In terms of disposal, a strategy would be beneficial to reduce and separate food waste.

A strategy could be developed in accordance with other policies about spatial planning and rural development amongst others, which might lead to cross-compliance of targets. It would also see the participation of civil society, in terms of citizens but also organization protecting food rights. The development of a food strategy would also strengthen the relation between rural and urban communities facilitated by economic exchanges.

Overall a food strategy presents the opportunities (figure 7) to develop a cross-sectorial integrated intervention plan that would address different aspects of the food system making it more sustainable and resilient. Although it is hard to conceive specific benefits without a clear strategy, actors perceived multiple opportunities both strategically and operationally.

Challenges

On the challenging side, actors felt there are multiple aspects that might hinder the development of a food strategy.

For what concerns production, the municipalities of Torres Vedras and Loures expressed difficulties in finding enough local organic food to supply their local projects. If we consider to supply public canteens with organic food it would challenging to have sufficient quantities of organic grown produce. At the same time, it is hard to reach conventional farms and have them converting to organic production systems.

At the distribution level, the recent changes in the structure of Lisbon markets (i.e. Ribeira and Campo de Ourique markets) challenge the operations of traditional retailers in the city and the ability of certain customers to shop there (Guimarães, 2019). Moreover, the competition between large and small retailers might challenge the achievement of a common vision for the strategy. At the same time current public procurement regulation hinder the introduction of sustainability criteria.

It is also challenging to expand the focus of food education to include sustainability concerns. This is also reinforced by people mind-sets that need to open up to new conception of good food. Regarding disposal, avoid waste is challenging in general but also due to existing food safety regulations that forbid the use of certain products after expiring date when they are still eatable.

In terms of governance, the lack of funds has been expressed by multiple respondents as inhibitor of the strategy in general but also for specific aspects such as mapping food systems, agrarian innovations and scaling up. Another common challenge is represented by engaging stakeholders and finding a common vision. Municipalities of Torres Vedras and Loures indicated public procurement processes hindering transitions towards sustainable public food supply chains.



Figure 8 Food strategy perceived challenges

A wide encompassing food strategy, that see the participation of different types of stakeholders, would need to find specific arrangement that address these sectorial challenges (figure 8), turning up new opportunities for the food sector.

2.4 Scale

An important aspect of the strategy is to identify the spatial limits to allocate to the strategy. However, without having a defined strategy, it has been challenging for interviewees to provide an appropriate scale. Also, most interviewees do not have a clear idea of what land/producers are needed for such a strategy. Nevertheless, some of the people interviewed had some suggestions how to geographically delineate a strategy.

Generally, most people indicated that a food strategy to feed the population of Lisbon should include territories beyond LMA. Farmers particularly suggested a food strategy should include more municipalities to the north of LMA, towards the 'Oeste' as many of their partners (other producers and distributors) are in these territories, hence deeming them necessary to be included. Rosário Oliveira, in line with Kloppenburg, Hendrickson, & Stevenson (1996), suggested the idea of a 'food shed' which is a geographic region including production places, distribution routes and markets for specific population. A food shed approach for Lisbon could extend until Alcobaça to the north, Sines to the south and Évora to east which corresponds to the area so called 'arco metropolitano' also deployed in the study of the Gulbenlkian Foundation (Fundação Calouste Gulbenkian, 2015).

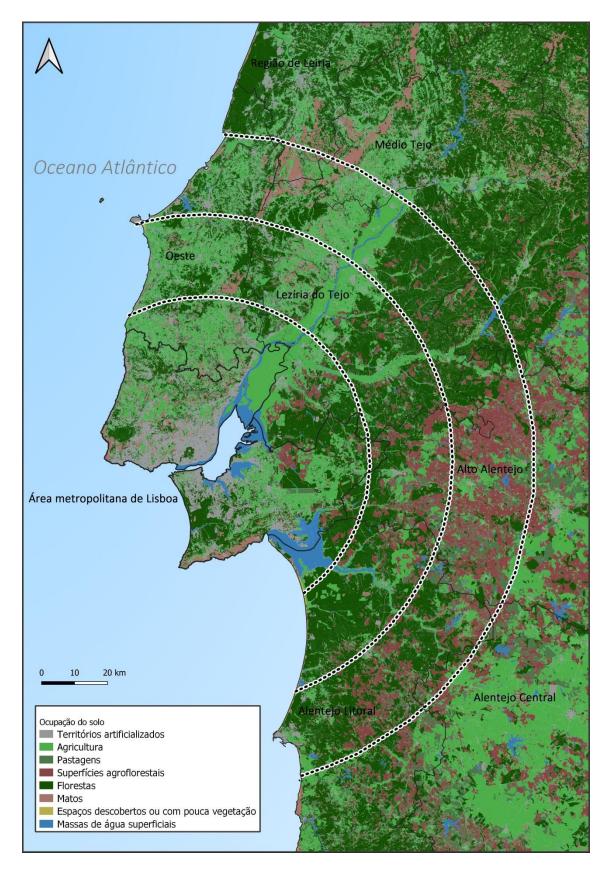


Figure 9 Arco metropolitano divided in 3 rings. Land use map (Area Metropolitana Lisbona, Oeste, Lezíria do Tejo, Medio Tejo and Alentejo) produced by CCDR-LTV in 2020 with data from Land Use and Land cover (COS) and CORINE Land Cover (CLC) produced by General Direction of the Territory (DGT) in 2018 (DGT, 2018)

Such characterization might allow to feed part of the population with local products and creates synergies between rural and urban areas. This is also supported by the food shed mapping for the sub region of 'Oeste' and 'Ribatejo' areas where specific diet scenarios are explored in relation to land use (Cardoso, Domingos, Magalhães, Melo-Abreu, & Palma, 2017). Similarly, the municipality of Torres Vedras and AML suggested the food strategy should be developed beyond LMA and also include areas that suffer from soil erosion and are at risk of desertification (Geeson & Brandt, 2004). At the same time, about a third of the interviewees claim that it would be good to initially start with the municipalities within LMA and later expand. Other organizations like ACTUAR and ADREPS claimed that it is necessary to define first what a strategy would be and then based on the objectives it would be opportune to limit an area of action.

Nevertheless, as emerged it is important to consider the inclusion of municipalities in the Oeste, Lezíria do Tejo, Alentejo central and Alentejo litoral to facilitate exchanges which are already occurring between operators in the different areas beyond LMA. A strategy for Lisbon could also work with other strategies elsewhere in the country, facilitating the exchange of food products that are grown in other areas.

Following the suggestions emerged from the interviews, a wide encompassing food strategy should include the area of the 'arco metropolitano' (figure 9). Such scale would allow to have the territory divided in three main areas where the inner circle represents the major consumer basin, the second arch indicate where most producers are located and the third ring represent areas to create synergies in favour of economic exchanges that contrast depopulation and desertification.

2.4 Reflections

This research captured the perceptions of stakeholders about the development of a food strategy. It is hereby important to note the difference between the development of a strategy and the strategy itself. This report does not stand to represent how a food strategy should be developed but rather to present how some of the actors involved in the food system perceive its development and conception. Moreover, the suggestions are meant to advance some of the ideas emerged from the questionnaire. However, to develop a strategy it is needed to have a wider representation of stakeholders in an equity manner discussing together.

This research saw the collaboration of 31 organizations through interviews. However, there are many more people involved in the food system that need to be consulted. It is in fact needed to open calls of participation particularly for the categories emerged in the interviews such farmers and consumers which can also be done through public consultations, where producers and citizens alike can contribute to the development of the strategy. Other investigation strategies such as surveys might also be employed.

It is also important to note how the information reflected from the interviews in this report might not represent entirely the vision of the whole organizations, as often the people interviewed talk from their perspectives and background. At the same time, people make organizations, hence validating the link between individual information and their organizations. Nevertheless, it is plausible that in some cases organizations do not have capacities, competences or willingness to undertake specific actions they advocate about.

3. Discussion and conclusions

The information emerged from the interviews indicates the respondents recognise the importance and the need of developing a food strategy. Although, the responses do not reflect the entirety of the actors involved in Lisbon food system, it represents the idea of some of its key representatives. Most responses indicated a food strategy should be developed by a food council. Such council could adopt a multi-level governance form where a regional food council articulates with correspondent councils at national and municipal level. Such networks would allow the representation of stakeholders at different levels. The regional food council would include the municipalities and the representatives of the actors across food supply chain in LMA, Oeste, Lezíria do Tejo and parts of Alentejo Litoral and Alentejo Central. Moreover, the council should also include sectorial institutions dedicated to agriculture, fisheries, education, and health such general direction' representatives but also dedicated organizations and academics.

In terms of content, the strategy should, taking into account what is currently done on the territory, advance some measures on the priorities emerged. Firstly, the food strategy should provide technical and financial support to producers while promoting urban and organic agriculture. Secondly, it should focus on shortening food supply chains while improving public procurement processes but also creating different distribution strategies such as organic markets and e-commerce platforms. Thirdly, the food strategy should entail food education programs for youth and adults while also adopt campaigns for the promotion of Portuguese gastronomy and food sustainability. Lastly, measures to prevent food waste should be activated. Other priorities include the use of spatial planning to better articulate food circulation across the region but also in regard to land allocation for agricultural purposes. Interestingly, environmental concerns did not primarily emerge but were mentioned in different occasions, particularly in relation to water use, soil preservation and desertification.

The council could then develop its own initiatives such food educational programs and promotional campaigns; support partners actions particularly in relation to food operators such as producers but also consumers. The council could also advise governmental bodies and contribute to policy development for example adjusting public procurement processes and food safety regulations. This could be done by working with ministries and municipalities. In doing so the strategy needs to inspire stakeholders to take action.

Although this information emerged from interviews with key actors involved in Lisbon food system, it is necessary to understand the development of a strategy as result of negotiations among a major range of actors. Hence, the configuration of activities needs to be better elaborated by the people that will be involved in the strategy. This will also allow to construct a joint vision where different conception of sustainability will be discussed.

The development of a food strategy would present multiple benefits. If the actions suggested would be carried on, a strategy would boost local production and create direct links between producers and citizens. This would create health and economic benefits for the local

population and lead to the compliance with targets of other strategies. In terms of challenges, it might be difficult to reach consensus among participants while also as people's mind-sets might represent an obstacle. Although participants are interested in the strategy they might show a lack of commitment towards its actions. Also markets configurations and competition might hinder an even and fair food distribution. Regarding governance, current legislation might hinder the development of specific activities, for example in terms of food safety in relation to food waste. Similarly, a lack of funds might hamper the development of some strategy's actions. These challenges will need to be addressed by the strategy, developing specific arrangements to overcome them.

Although the attained results do not reflect the entirety of the actors involved in the food system of Lisbon and neighbouring territories, it is possible to conceive a strategy that encompasses the territory of the 'arco metropolitano' which facilitates the interchange of resources between different urban and rural areas, providing additional social, economic and environmental benefits.

Based on the understanding of other food strategies and the information emerged from the interviews, a strategy for LMA might fall under the category of a regional food strategy, where adjacent territories to the city contribute to enhance its food security while creating synergies with urban and rural areas. In a multi-level perspective, a regional platform could respond to municipal needs and articulate specific measures. In doing so, a strategy can also create linkages to other existing national strategies, particularly in relation to food security, organic agriculture, waste and spatial planning. Moreover, this strategy is an occasion to introduce measures that are in line with European regulations on food but also measure that are beneficial for global issues such as climate change. In terms of process, it is evident that consultations among actors need to occur to initiate a strategy and that an organization such CCDR-LVT can be the mean of initially bring the different actors together. Nevertheless, it is crucial to emphasize how a strategy needs to harmonize different vision setting multiple priorities. A strategy is in fact not intended to fix a food system from day to day but rather activate measure progressively to address emerging challenges as recognise by the stakeholders.

The findings emerged from this research help to advance some understanding of how actors involved in Lisbon food system perceive the development of a food strategy. For this reason, this study represents one of the first steps towards undertaking major endeavours to improve Lisbon food system. Nevertheless, further studies are strongly needed to develop a better understanding of producers and consumers' positions and have a bigger picture of the food system. At the same time, it is necessary to begin consultations with actors interested in the food strategy to trace a roadmap that indicate a path towards the development of more sustainable and resilient food systems.

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Annex

Entities contacted

Organisation	Representative			
CNA - Confederação Nacional da Agricultura	Farmers			
AJAP - Associáo dos Jovenes Agricultures do Portogal	Young farmers			
AGROBIO	Organic sector			
Agricultura Urbana Lisboa	Urban Agriculture			
AIHO - Associaçao Interprofessional Horticultura do Oeste	Farming association			
BioFrade	Organic farmers			
DilAromas	Organic farmers			
Vasco Pinto LDA	Organic farmers			
Quinta do Arneiro	Organic farmers			
Maria Esperança Augustin	Farmers			
Carlos Fidalgo	Farmers			
Estevao Raposo	Farmers			
Hélio Serra	Farmers			
Cidália Mata	Farmers			
AAPCS - Associação dos Armadores de Pesca Locale	Fisheries			
Artesanal do Centro e Sul				
Associaçao dos Armadores Pesca Costiera e do Largo do	Fisheries			
Oeste				
ADEPE - Associação para o Desevolvimiento de Peniche -	Fisheries development			
GAL Pesca Oeste				
FIPA - Federação das Indústrias Portuguesas Agro-	Agribusiness			
Alimentares				
MARL	Wholesaler market			
ADIPA - Associação Dos Distribuidores De Produtos	Wholesalers and retailers			
Alimentares				
APED - Associação Portuguesa de Empresas de Distribuição	Supermarkets			
José Oliveira	Distributor			
Fruta Feia	Short Food Supply Chain			
REFOOD	Short Food Supply Chain			
Prove - Promover e Vender	Short Food Supply Chain			
AHRESP - Associação da Hotelaria, Restauração e Similares	Restaurants			
de Portugal				
Comer o mundo	Gastronomy			
Alma restaurant	Gastronomy			
DECO - Defesa Consumidor	Consumers organization			
DG Consumidor	Consumers organization			
ACOP - Associação De Consumidores De Portugal	Consumers organization			
RRN/DGADR - Rede Rurais Nacional/Direcção-Geral De	Rural Development institutiion			
Agricultura E Desenvolvimento Rural				

Farming and fishing Institution
Fisheries institution
Policy institution
Agrarian research institute
Environmental organization
Nature conservation organization
Health and Nutrition program
City council
Metropolitan authority
Food NGO
Education NGO
Philanthropic organization
Tourism entity
Circular economy organization
Academia

Questionnaire

1. Can you tell me what the relation of your organization with food is?

2. Considering a food strategy as improvement of an existing food system, how would you envision a food strategy for the Lisbon Metropolitan Area?

3. What do you think should be the focus of a Food Strategy for LMA? Pick five most important focuses for your organization

- Right to food
- □ Workers conditions
- □ Food security
- □ Fisheries
- Animal welfare
- □ High-tech innovation
- □ Territorial development
- □ Food safety
- □ Improve infrastructures
- □ Short food supply chain

- □ Alternative Food Networks
- □ New business models
- Public procurement
- □ Health and nutrition
- Food waste
- □ Food literacy/education
- □ Food culture/identity
- □ Environmental regulation
- □ Environmental protection
- □ Landscape quality
- □ Climate change
- Other
- 4. Who do you think should be involved in a Food Strategy for LMA?
- □ Farmers
- □ Agribusinesses
- Fisheries
- □ Wine makers and brewers
- Processors
- □ Transporters
- □ Wholesalers
- Retailers
- □ Restaurants and café
- □ Consumers
- □ Governmental institutions
- Local administrations
- NGOs
- Community groups
- □ Local initiatives and projects
- □ Others
- 5. What do you see as platform for a Food Strategy? And who should lead it?
 - □ Partnership between public institutions, organizations and business
 - □ Food council with sectorial representatives of the actors involved Lisbon food systems
 - □ Stakeholder board with actors of the Lisbon Metropolitan Area
 - □ Independent steering committee
 - □ Other
- 6. What types of actions shall a Food Strategy for AML entail?
 - □ Advice local administrations
 - □ Develop policy regulations
 - Develop own initiatives

- □ Contract third parties' projects
- □ Support partners actions
- □ Other

7. What your organization considers benefits for the development of a food strategy?

8. What your organization considers challenges and obstacles for the development of a food strategy?

9. What scale shall a Food Strategy for LMA have?

