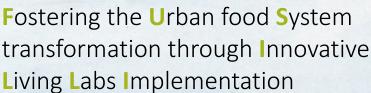
Nilufer Food Lab (Turchia)

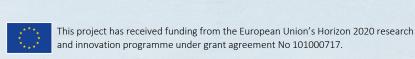




Beril Alpagut, Demir Enerji

Fostering the Urban food System transformation through Innovative

















1 project



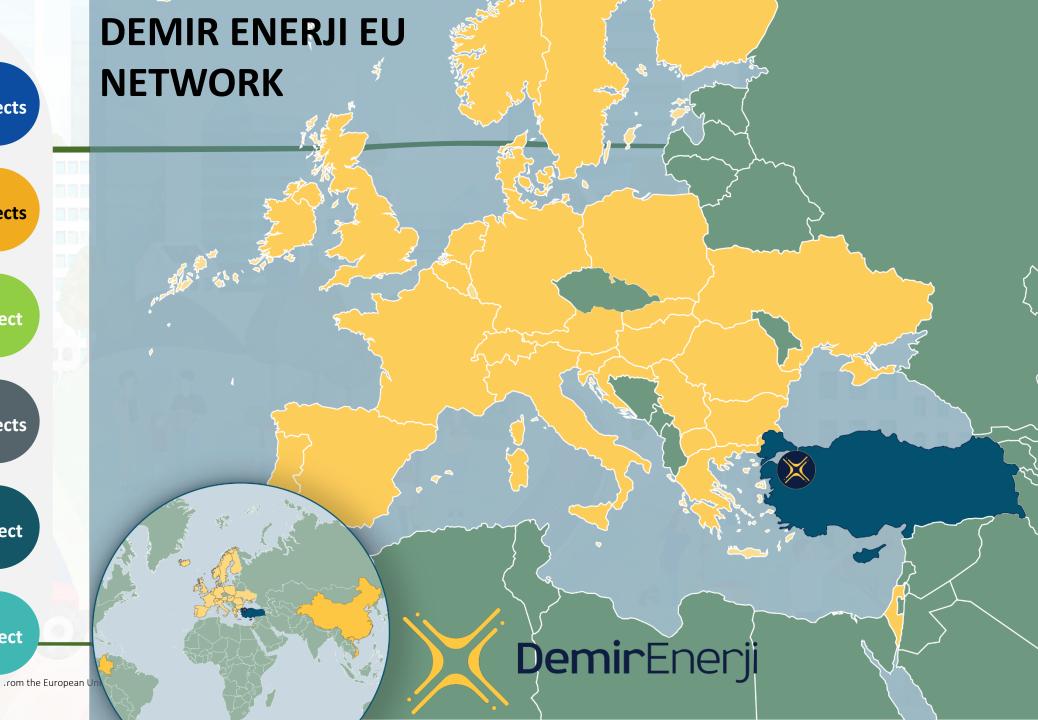
2 projects







1 project



About FUSILLI



- * Food and Natural Resources project funded by Horizon 2020
- * 4 years: January 2021-December 2024
- * 34 partners
- * 13 countries
- * Focus on supporting cities to facilitate their transition towards more sustainable food systems, in line with the FOOD2030 priorities, in 12 Food 2030 Living Labs.
- * Creation of a FUSILLI Knowledge Community



FUSILLI Living Labs





- * Athens (Greece)
- * Castelo Branco (Portugal)
- * Differdange (Luxembourg)
- * Kharkiv (Ukraine)
- * Kolding (Denmark)
- * Nilufer (Turkey)
- * Oslo (Norway)
- * Rijeka (Croatia)
- * Rome (Italy)
- * San Sebastián (Spain)
- * Tampere (Finland)
- * Turin (Italy)



FUSILLI Partners



Coordinator Fundación CARTIF with 34 partners from 13 countries











































CARTIF



DemirEnerji

Ville de **Differdange**























FUSILLI Objectives



At the core of FUSILLI are 12 Living Labs in 12 different cities.

- * Main objective: to develop urban food plans within their local contexts to achieve an integrated and safe holistic transition towards healthy, sustainable, secure, inclusive and cost-efficient food systems.
- * FUSILLI follows a multi-objective approach of implementing feasible and replicable innovative urban policies, in line with the four priorities of the EU's FOOD2030 policy:
 - nutrition for sustainable and healthy diets,
 - climate-smart and environmentally sustainable food systems,
 - circularity and resource efficient food systems and
 - innovation and empowerment of communities.



FUSILLI Living Labs



- * These cities will overcome barriers regarding the development and the implementation of integrated, systemic food policies that support the transition towards sustainable food systems in urban, peri-urban and nearby rural areas.
- * Via an open knowledge community, cities will be empowered to implement innovative and personalized policies and actions, placing citizens in the heart of the process.
- * Each city will thus develop a **Living Lab** as an **open innovation ecosystem** with the objective to implement different innovative actions through **all stages of the food chain**, including production and processing, distribution and logistics, consumption, food loss and waste, as well as governance.



FUSILLI Actions







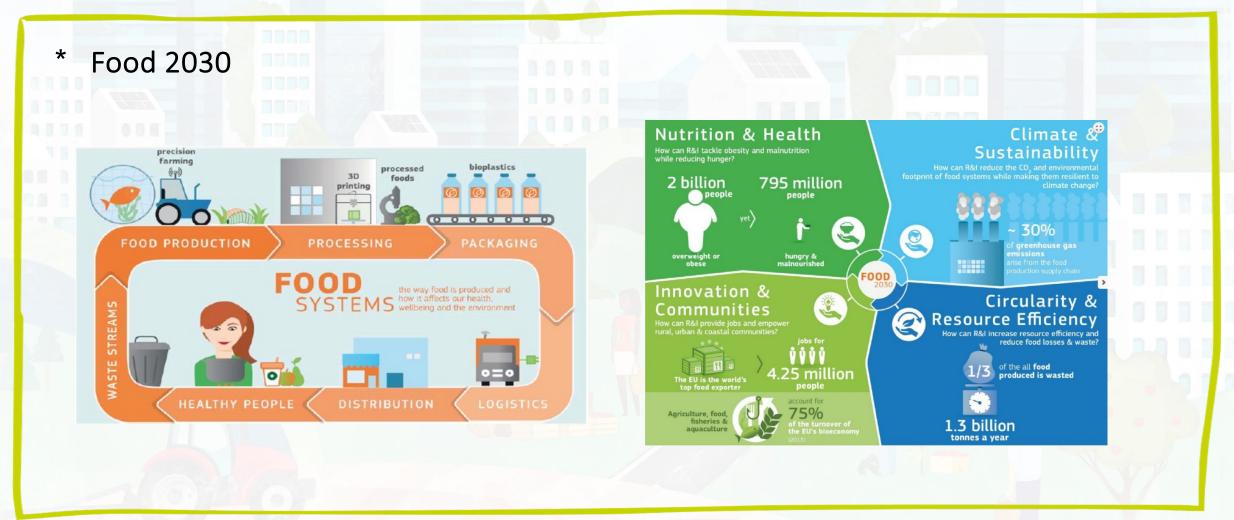


* The Farm to Fork Strategy





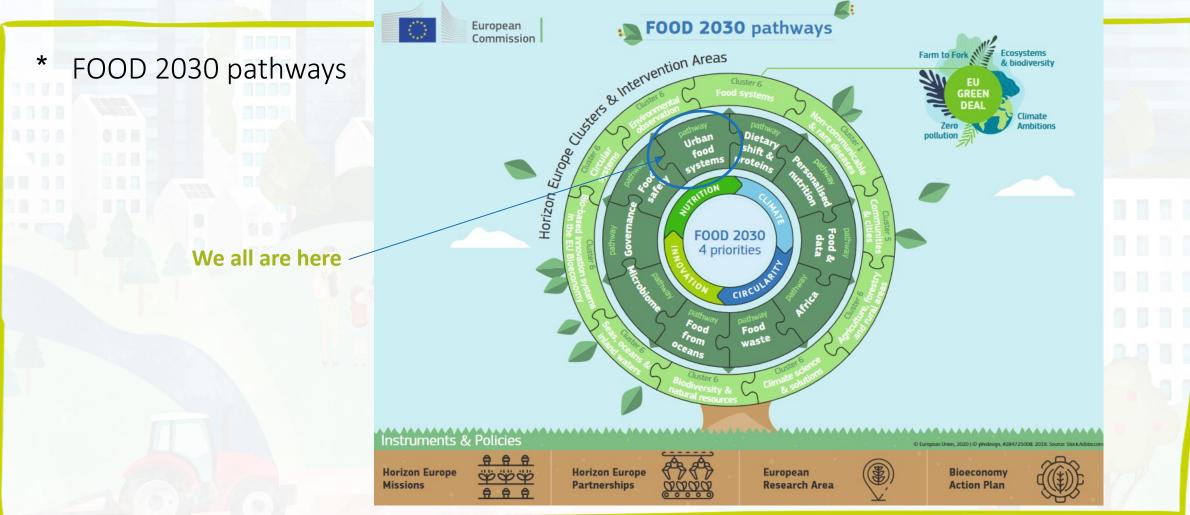












FUSILLI Implementation Structure



- * WP1: Network of Food2030 Living Labs
- * WP2: Food Policies and Practices Identification Knowledge Community
- * WP3: Urban Food Participatory Long-Term Planning
- * WP4: Investment Infrastructure Package
- * WP5: Cooperation with other Projects & Networks (DEMIR)
- * WP6: Dissemination, Communication & Exploitation
- * WP7: Coordination
- * WP8: Ethics





Nilufer Living LAB

Fostering the Urban food System transformation through Innovative Living Labs Implementation



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000717.



Why Should Food Systems Transform?



Today's food systems need to be <u>improved and transformed</u> because they are <u>not</u> <u>sustainable</u> (circular) and can be affected by these following factors;

INCREASE IN POPULATION BIODIVERSITY LOSS

ENVIRONMENTAL
DEGRADATION
POLLUTION AND WASTE

DISEASES CAUSED BY MALNUTRITION



Thematic Years & FUSILLI Context



A long period of time is needed to make a food system more sustainable, healthy and inclusive. Nilufer's intention to transform the food system starts before FUSILLI.

Local farmers have been supported for a long time and all decision-making mechanisms are brought together, starting from the neighborhood level.

The FUSILLI Project brings together the achievements of the 2020 Year of Agriculture, 2021 Year of Food and the 2022 Year of Climate. Due to its integrated approach, it is a project that lays the foundations of the food system transformation in Nilüfer and facilitates the transition to a more sustainable food system.

All these efforts are directed and prioritized in line with different needs and objectives of every thematic year.



Thematic Years & FUSILLI Context



- Nilufer has a population of 536.356 people and have
 42 urban and 22 rural neighborhoods in its borders
- LL activities were designed with an approach that includes consumers, producers and everyone else in the system.
- We strive to include our citizens in the food system transformation processes in our 64 neighborhoods with the "City Council participation model".
- Actions were divided into 5 categories
- 48 main actions (192 sub-actions)
- 120 of 192 actions completed in M33/48
- Total Progress: %62,50





Thematic Years & FUSILLI Context



As Nilufer is willing to transform the food system, it already has;

✓ City council participation model,
(Where everyone is included in the processes)

- ✓ living lab practices,
- ✓ The experiences of other cities within FOOD2030 family,
- ✓ Achievements of Agriculture-Food-Climate years,
- Educations for different ages,
- Stakeholders and their involvement,
- ✓ Political commitments (MUFPP, SECAP, Strategic Plan etc.)
- FUSILLI helps Nilufer to combine all of these.

1 Food Hub 6 salepoints 3 Neighborhood Gardens (Urban Gardens) 2 Orchards (City Gardens) 1 Eco-Farm, 1 Eco-Garden **64 Neighborhood Commitees** 1 Compost Unit 1 Agricultural Analysis Lab 1 Food Analysis Lab 1 Community Kitchen 1 Seed Library 1 Livestock Market 2 Campus of Associations 2 Soup Kitchen 32 Street Markets (1 Organic, 4 Producer Markets) Festivals / Events **Projects** Various Directorates and Departments Involved



CIA1 - Education of children for production and consumption of healthy food CIA11- Educational App

•2.179 students planted seasonal vegetables, collected and harvested their seeds, both in neighborhood gardens and in raised beds at their



- Number of Nilüfer Bostan Salepoints have been increased. (6 Branches)
- Konaklı EcoFarm irrigation project has been applied.
- Konaklı EcoFarm's production parcels defined and more than 2.000 fruit saplings planted.







schools.



CIA3 - Neighbourhoods / Virtual Food Community.

- An inventory of «which product was released in which neighborhood, at what time» was taken.
- The Food Community has made 14 bulk purchases to date.





CIA5 – Food Labs

- The fertility of soil and seeds was discussed on Terra Madre Day celebrated in different neighborhoods, where local flavors and locally produced products are honored, food producers meet with consumers. (Information on plant production, animal husbandry, culinary culture and traditional recipes were shared with workshops.)
- Seed Exchange Festival where seed exchange, sowing, planting information and local recipes are shared





CIA6 - Food Hub

Hasanağa Food Hub has been established and started producing.















CIA7 — Food Card
• People-in-need were identified and 974 families benefited from «Halk Kart».

CIA10 - Educational workshops with local chefs to develop recipes with local food





UPCOMING ACTION



CIA8 - Promote sustainable consumption

Including workshops and meetings with consumers via neighborhood commitees





DIA1 - Farmers' markets

- Preparation of directives regarding the establishment and operation of markets
- Collection of necessary documents (Farmer Registry Sys. etc.) after the notification of the directive
- Determination of divided sale parcels by meeting with manufacturer.
- Designing and printing product labels and ID cards
- Periodic control of markets
- Removal of non-producer sellers







DIA2 - Short supply chain (Local Stores)

Determination of places to sell, infrastructure and zoning works

Supply, sale, storage and logistics of products

Opening of new sales points





DIA3 - Food Packaging

Packaging design and production

DIA6 - Food Festivals

- Determination of festival themes (depending on products)
- Terra Madre Day (on CIA5)
- Local Product Festivals; Peach, Fig, Pepper, Artichoke, Olive
- Misi Local Flavors Festival
- Seed Exchange Festival

DIA8 - Gastronomy Chain And Fair-trade Events DIA11 - Fairtrade Municipal Procurement

 Nilkoop includes women's solidarity associations in production and pays their shares. (The cooperative also provides many supports for the producers on different stages.)











DIA9 - Municipal Procurement from Local Farms

• Food supply to municipal facilities (nursing homes, etc.) from local producers and cooperatives supported by the municipality (6-month contracts)

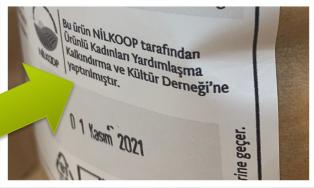
DIA10 - Producer and Consumer Coops Business Models

- Determination of products to be sold, preparation of specifications and contracts
- Determination of Women's Associations (according to criteria such as experience, quality, hygiene, etc.)
- Training, production and control of women's associations
- Supervision of productions by food engineer
- Purchasing products from Women's Solidarity Associations and selling them at Bostan sales points

Label:

"This product was produced by Ürünlü Women's Aid, Development and Culture Association for NILKOOP"







DIA12- Promotion of Local Foods and New Buying Options

 Promotional activities to be carried out to promote geographically indicated products and regionspecific products (Ex: Hasanağa Artichoke, Bursa Black, etc.)

DIA13- Zero KM Agriculture

- Sales from the field, in producer markets and orchards
 (There will be a mini salepoint for Zero-KM sales at Konaklı EcoFarm.)
- People also redirected to producers directly (via the producer list on the website)









UPCOMING ACTION



DIA14- Catalogue of Local Producers

- Determining the production criteria of local producers (those who do not use pesticides, those who save water, those who produce local products, those who have soil analysis done, those who use local seeds, etc.)
- Listing and classification of manufacturers
- Inspection of manufacturers
- Publishing the manufacturer's catalog



Actions done on behalf of Governance Innovation Actions



GIA1 – Food Policy Council

• The Food Council was established within the City Council and held its first Establishment Meeting with stakeholders, academic chambers and professional chambers.

GIA3 – Municipal Food Commission

Food Commission has been established (but pending instructions for charter).

GIA6 – Environment (+Energy)

- Approval was received for the installation of 1MW Capacity Solar Power Plan in Güngören Neighborhood.
- Sustainable Energy and Climate Action Plan (SECAP) prepared.

GIA10 - Sign MUFPP

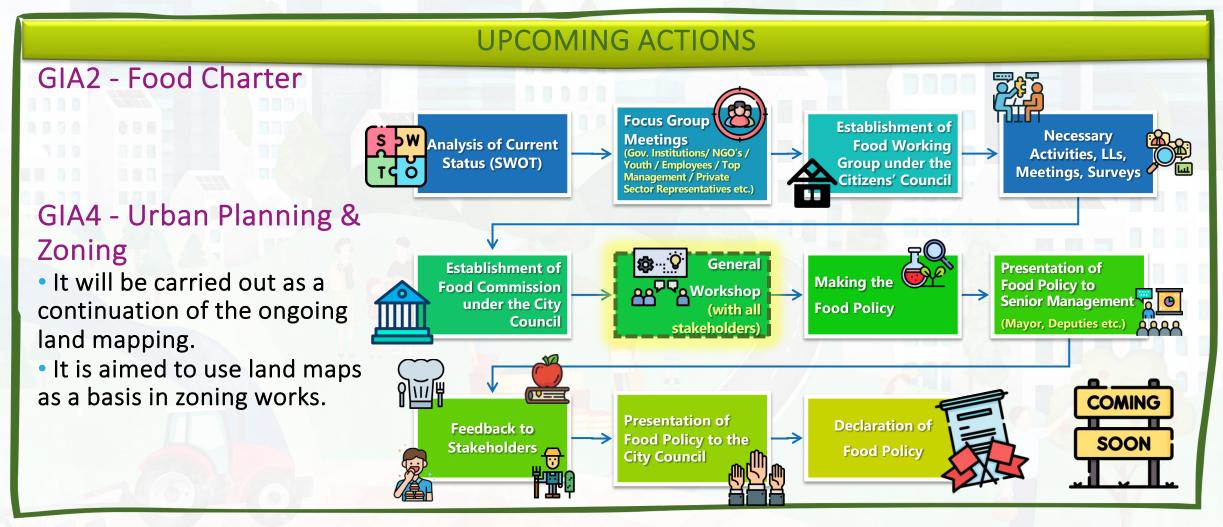
MUFPP signed in August 2022.





Actions will be done on behalf of Governance Innovation Actions fire







PIA1—School Food Gardens

Determination of pilot schools
Negotiations were held with the Ministry of National Education for approvals. The new gardens were planned to be implemented after the semester.

PIA4 – Seed Library
Library inventory has been updated















PIA5 - Roof-top Gardening

- Detection of available places
- Project planning and measurements
- More than 400K seedlings were distributed every year to indirectly support rooftop gardening.





PIA7 - Smart Precision Farming To Reduce Agricultural inputs

- Making product recommendations based on soil analysis results
- Training and awareness raising activities on irrigation, fertilization and pesticide application
- Trainings and awareness-raising activities on ecological agriculture







PIA8 – Community Kitchens

•Strawberry jam production in the community kitchen with Atlas Women's Solidarity Association.







Strawberry jam was produced under the supervision of our food engineer.







PIA9- Urban Garden Allotments / Community Gardens

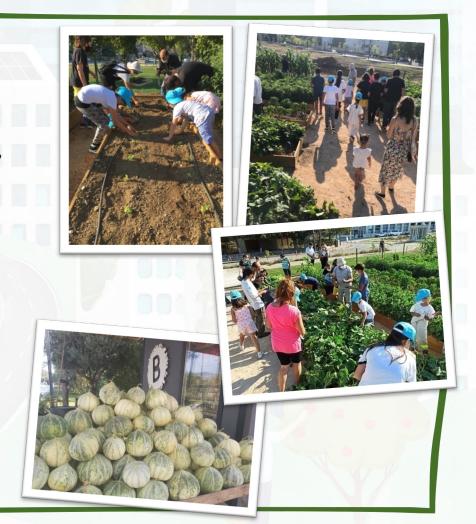
- Determining the locations of the urban vegetable gardens to be established in urban neighborhoods,
- Preparation and assembly of raised beds in designated places and installation of drip irrigation system, filling the beds with soil,
- Transferring it to the headman and neighborhood committees,
- Sowing-Planting-Harvest activities

PIA10 - Community Supported Agriculture (CSA)

 Mapping through Community Supported Agriculture and determining the locations of urban gardens where new business models will be tested

PIA12 - Multi-functional Farming

- Field preparations, seed sowing and seedling planting
- Sales from the field, in producer markets and Bostan Salepoints
- •Converting fresh sales surplus into processed products (sauce, tomato paste, jam, canned food, pickles, etc.)





PIA13 - Soil analysis & Restoration of Degraded Soil & Development of Smart Soils

- Determination of the lands where profile excavation will be carried out according to the soil structures on the map
- Taking samples with municipal resources
- Analysis of soil samples (400+ samples analyzed)
- Processing the land profile structure on maps with satellite images

PIA 14 - Food Quality Training Activities Producers / Distributers / Consumers

- Identification of stakeholders
- Carrying out workshops and trainings







After acquiring the only laboratory in our region which was about to close, the Municipality transferred the operation of the lab to Nilkoop.





PIA16 - Water Analysis & Water Treatment

- Conducting water analyzes by taking samples from water resources
- Evaluation of the results of water analysis
- Sharing the analysis results with authorized institutions and the public
- Requesting improvement from relevant institutions according to the analysis results



PIA17 - Biodiversity Conservation (advocacy actions mostly)

- Identifying elements that threaten biological diversity and organizing a workshop on conservation methods
- Inclusion of seeds obtained from various parts of Turkey in the seed inventory
- Publication of public informative content within the scope of World Wetlands Day (22 March), Biological Diversity Day (22 May), World Environment Day (5 June) events

PIA21 – GHG mitigation (Compost house, usage of gray water and rain harvesti

- Compost production in Compost House, Cold compost production
- SECAP preparation







Actions done on behalf of Producer Innovation Actions



PIA22 - Reuse of Fodder

Planting and cropping triticale in the ground

PIA 23 - Health Training Activites for Food Producers

• Hygiene and sanitation trainings were given to Producer Women's Solidarity Associations at the Farmers' House in Akçalar.







Actions will be done on behalf of Producer Innovation Actions



UPCOMING ACTIONS



PIA11 - Integrate refugees in agro-food production in cities

• This action has been updated as a workshop with earthquake victims and will be helpful for sustaining their traditional recipes.



PIA15 - Traceability QR-based App

• Determining the stages for consumers to access the stories (processes) of the products via the QR code at the point of sale (or label) etc.



Actions done on behalf of Food Loss and Waste



WIA4 - Organic Waste Collection and De-centralized Green Bin Composting

- Determination of pilot application areas (19 Mayıs Neighborhood)
- Providing meetings and materials where applicable











Applied Compost Production Study:

Organic wastes collected from the street market by volunteers and turned into compost.



Actions done on behalf of Food Loss and Waste



WIA7- Biofertilizers

- Utilization of compost from compost house and cold compost area
- Planting legumes in production areas before production and mixing them back into the soil











Actions will be done on behalf of Food Loss and Waste



UPCOMING ACTIONS



WIA1 - Reduce Food Waste / Food Rescue



WIA2 - Waste Management in University Canteens



WIA8 - Guide for Restaurants to Reduce Food Waste







































NILUFER'IN UNU ITALYA'YA VARDI

İtalya'nın Sardinya Adası'nda faaliyetlerini sürdüren ILABFOOD Oristano Proje Ekibi, Nilüfer'deki gıda sistemini görmek ve iyi uygulama örneklerini yerinde incelemek için Nilüfer Belediyesi'ne iki günlük gezi programı gerçeklestirdi. Nilüfer Belediyesi'nin ortağı olduğu FUSILLI Projesi'nin faaliyetlerini de verinde inceleven ekip, sosval sorumluluk calısmaları, inovasyon ve sosyal girişimcilik alanından da yapılabilecek projeler hakkında Nilüfer Belediyesi'nin ilgili birimleriyle görüş alışverişinde bulundu.

KIRSAL ALANLAR ÖNCELİKLİ

Ziyaretin ilk günü Nilüfer İnovasyon Merkezi'nde yapılan toplantılara katılan katılımcılar, su-



numların ardından Nilüfer Belediyesi Gıda Merkezi'ni gezdiler. İkinci gün ise saha ziyaretleri yapıldı. Topluluk mutfağı, üretici pazarı, Nilüfer Tanmsal Analiz Laboratuvarı, Ürünlü Kent Bostanları ve İhsaniye Mini Bostanı ziyaret eden ekip, Nilüfer'deki gıda sistemini

vakından inceledi. Katılımcılar ayrıca FUSILLI Projesi hakkında da bilgi aldı. ILABFOOD Oristano Proje Ekibi daha sonra Nilüfer Belediyesi Halk Evi'nde Baskan Turgay Erdem'i de ziyaret ettiler. Her yıl farklı bir tema ile calısma gerçeklestirdiklerini anlatan Erdem, göreve geldikten

Yılı ve İklim Yılı temalarını belirlediklerini ve bu temalarla ilgili calışmalar yaptıklarını söyledi. Bu calısmaların kırsal alanlarda da değerlendirildiğini aktaran Erdem, kooperatif ile bu çalışmaları geliştirip, yürüttüklerini vurguladı.

(Avdın Samet Öztürk)

İtalyan proje ekibi Nilüfer'in gıda sistemini inceledi ...

■ italya'dan gelerek Nilüfer Beledivesi'ni ziyaret eden ILABFOOD Oristano Proje Ekibi, belediyenin oluşturduğu gıda sistemini inceledi. İtalyan ekip, Nilüfer Belediyesi'nin kırsal kalkınma ile icalısmaları hakkında bilgi aldı. • 4'DE





İtalyan proje ekibi Nilüfer'in gıda sistemini inceledi









ITALYANLAR



ILABFOOD Oristano Proje Ekibi, belediyenin olustur duğu gıda sistemini inceledi. İtalyan ekip, iki günlük ziyarette, Nilüfer Belediyesi'nin kırsal kalkınma ile ilişkilendirilen çalışmaları hakkında bilgi aldı.

GIDA SISTEMINI INCELEDILER



İtalyan proje ekibi Nilüfer'i inceledi

İtalya'dan gelerek Nilüfer Belediyesi'ni ziyaret eden ILABFOOD Oristano Proje Ekibi, belediyenin oluşturduğu gıda sistemini inceledi. İtalyan ekip, Nilüfer'de çalışmalar hakkında bilgi aldı. **≫** 7′DE





Sınır ötesi **Nilüfer**

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rini belirterek, gösterilen misafirperverlikten

ilüfer Belediyesi'ne iki günlük gezi program erçekleştirdi. Nilüfer Belediyesi'nin ortağı ol

Ziyaretin ilk günü Nilüfer İnovasyon Merke





İtalya'dan gelerek Nilüfer Belediyesi'ni ziyaret eden ILABFOOD Oristano

Proje Ekibi, belediyenin oluşturduğu gıda sistemini inceledi. 112'de

European Union's Horizon 2020 research and innovation program

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- * E-Mail: info@fusilli-project.eu
- * Social Media:



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THANK YOU!

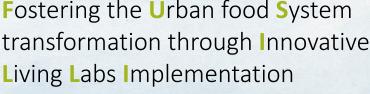




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