



IRENA

International Renewable Energy Agency



GLOBAL  
GEOTHERMAL  
ALLIANCE

IMPLEMENTATION OF THE  
AGRICULTURAL SPECIALIZED ORGANIZED INDUSTRIAL ZONE  
GEOTHERMAL GREENHOUSE LOANS  
AND  
INVESTMENT INCENTIVES IN TÜRKİYE



19.07.2022



**JESDER**  
Jeotermal Elektrik  
Santral Yatırımcıları Derneği



**GEO-ENERGY**  
EUROPE



**MEDITHERMAL ENERGY**  
GEOTHERMAL PROJECT CONSULTING

# UMUT BARIŞ ÜLGEN

Geological Engineer with MsC.

10 years academic career in İstanbul Technical University

10 years geothermal energy career

Owner Of



since 2019



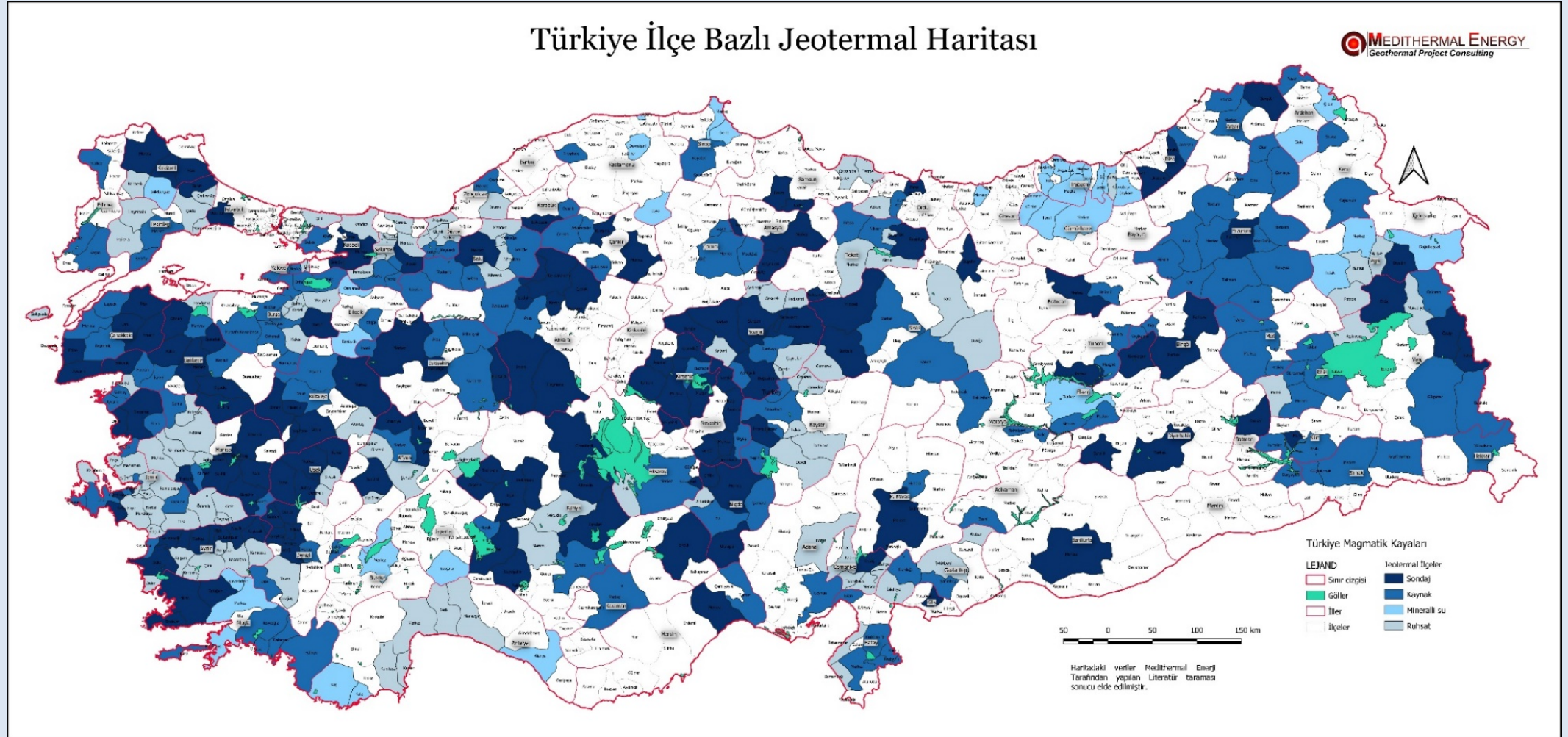
EU Project consultant of



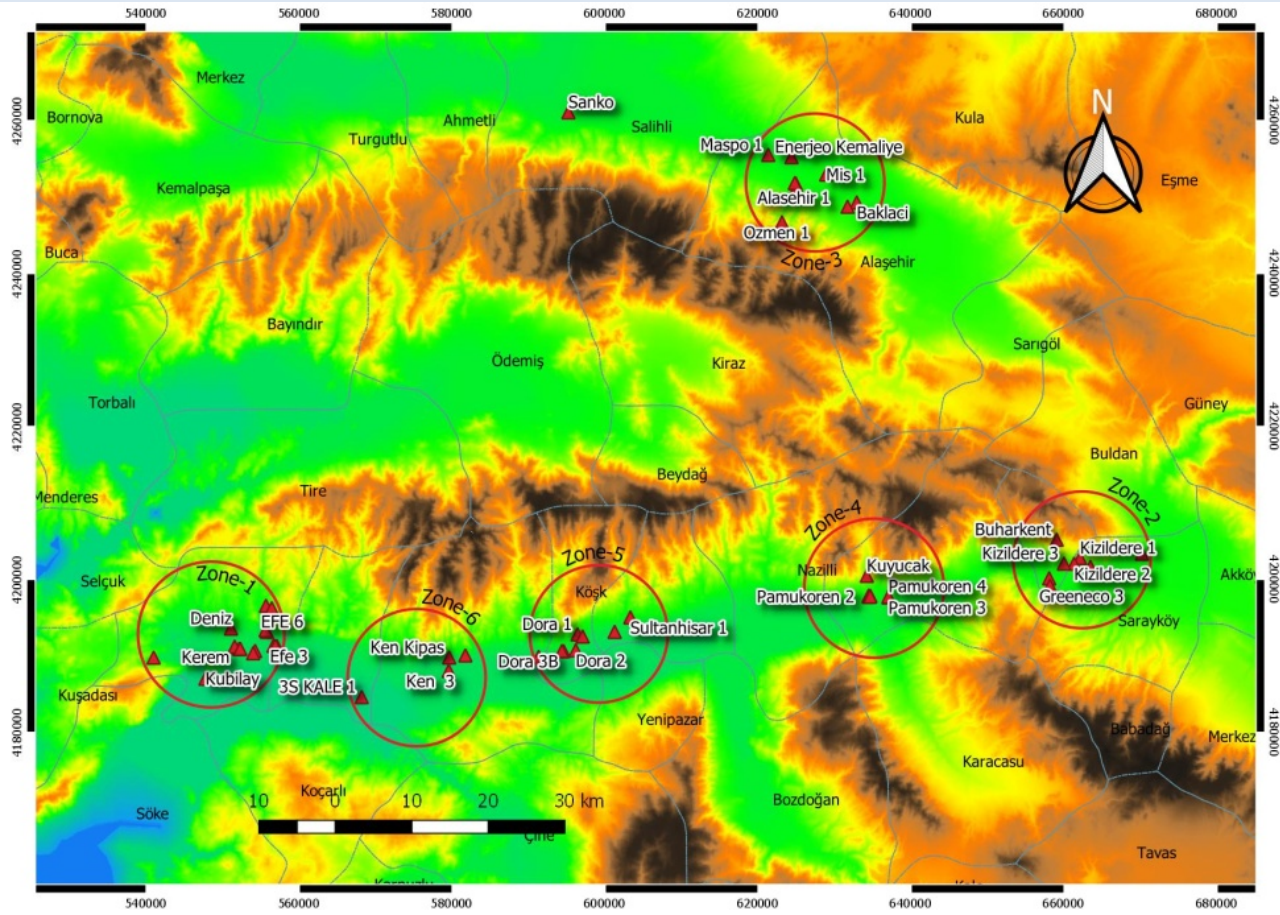
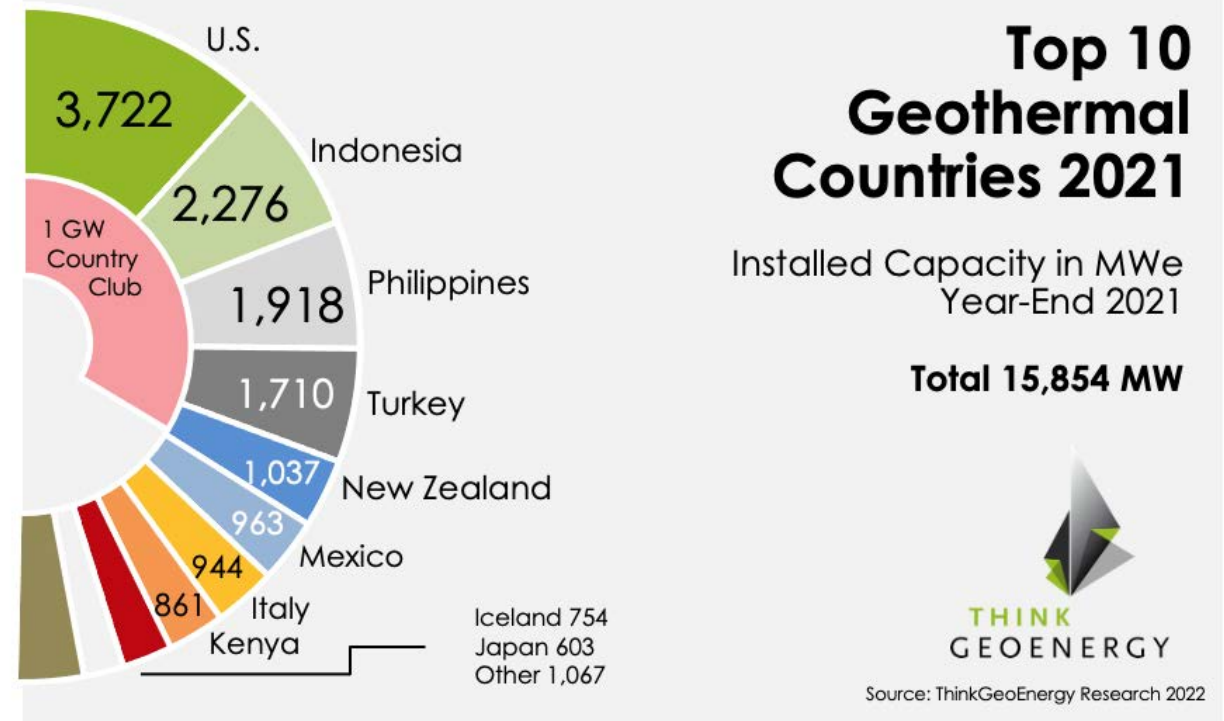
Solution partner of



Geothermal Research Studies Couninues At % 50 Of The Districts Of All Turkey. % 30 Uses Geothermal Energy For Different Purposes.



# Türkiye Leading Geothermal Energy Sector



## TÜRKİYE GREENHOUSE DEVELOPMENT

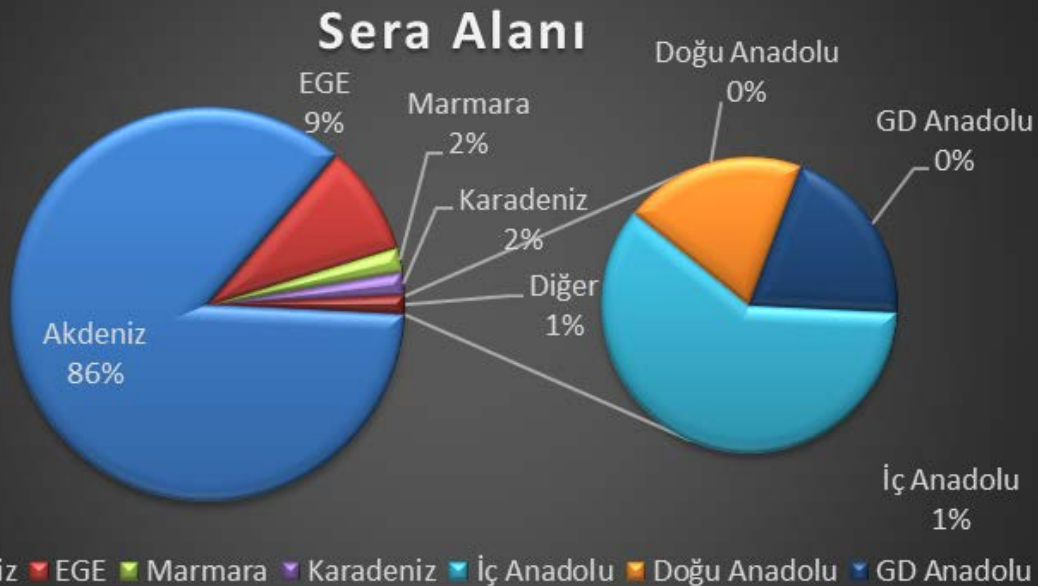
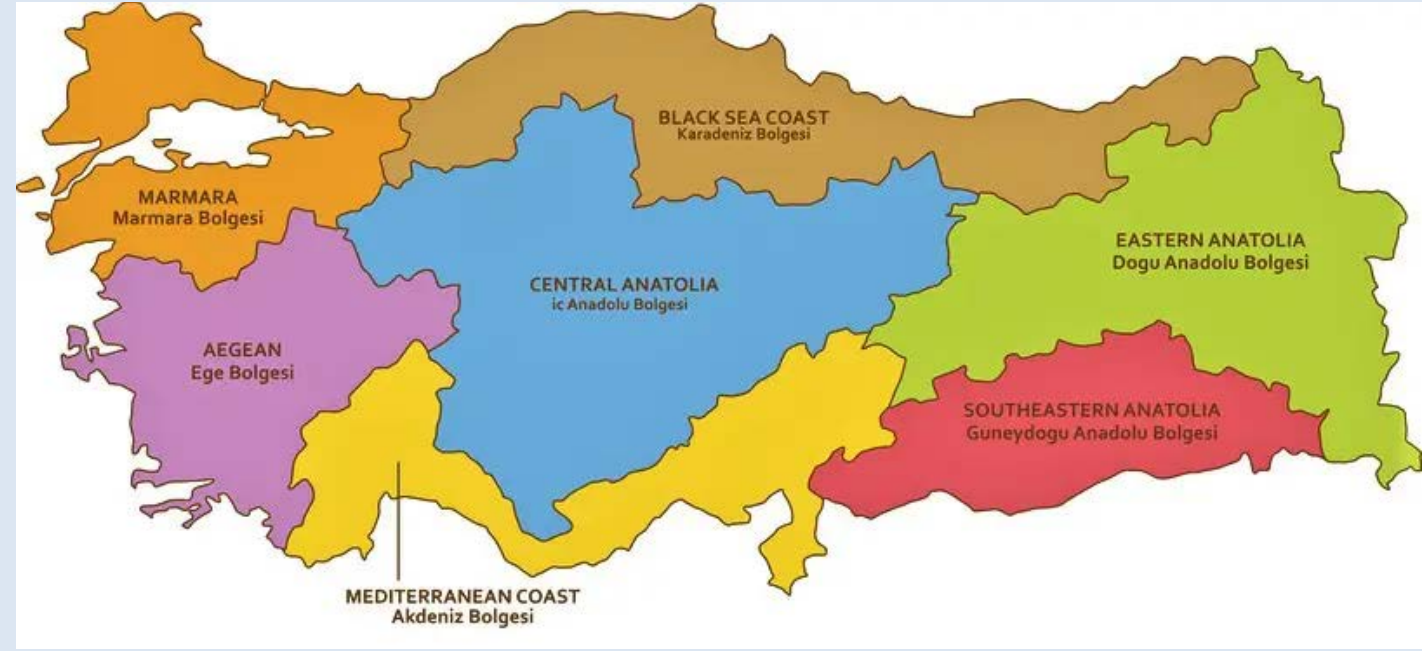
Our country ranks  
**4th in the world**  
**and 2nd in Europe**  
after Spain in  
terms of  
greenhouse assets.

While our  
greenhouse  
production areas  
were 540 thousand  
decares in 2002, it  
**reached 805**  
thousand decares  
with an increase of  
49% **in 2020.**

**14 thousand**  
**decares** of this area  
are **modern**  
**greenhouse areas.**

Modern  
greenhouses have  
an **average size of**  
**27 decares.**

## Geographic Distribution of Greenhouses by 2019



% 86 of the greenhouses was built in Mediterranean region. In four cities;

Antalya %48

Mersin %16

Adana %13

Muğla %9

Central, East and Southeast Anatolia total greenhouses was less than ~%1 of the country.

# Geothermal Heated Greenhouse Advantages

- Year-round (12 months) production
- Greenhouse around the country
- Obtaining High Efficiency Product
- Very low heating cost
- Incentives and grants

Çizelge 2. Aydın ve Kutanya illerinin uzun yıllık aylık ortalama sıcaklık değerleri ve bu değerlere bağlı serada alınması gerekli olan iklimlendirme önlemleri

| AYDIN                |        |     |      |              |      |      |         |      |              |      |        |     |
|----------------------|--------|-----|------|--------------|------|------|---------|------|--------------|------|--------|-----|
| Aylar                | 1      | 2   | 3    | 4            | 5    | 6    | 7       | 8    | 9            | 10   | 11     | 12  |
| Ortalama sıcaklık    | 8,2    | 9,3 | 11,9 | 15,8         | 20,9 | 25,9 | 28,4    | 27,5 | 23,4         | 18,4 | 13,3   | 9,6 |
| 10°C altı (h)        | 581    | 454 | 318  | 25           | 0    | 0    | 0       | 0    | 0            | 0    | 174    | 493 |
| 27°C üstü (h)        | 0      | 0   | 0    | 0            | 95   | 313  | 410     | 377  | 226          | 36   | 0      | 0   |
| İklimlendirme önlemi | Isıtma |     |      | Havalandırma |      |      | Soğutma |      | Havalandırma |      | Isıtma |     |
| Sera durumu          | ÜRETİM |     |      |              |      |      | BOŞ     |      | ÜRETİM       |      |        |     |

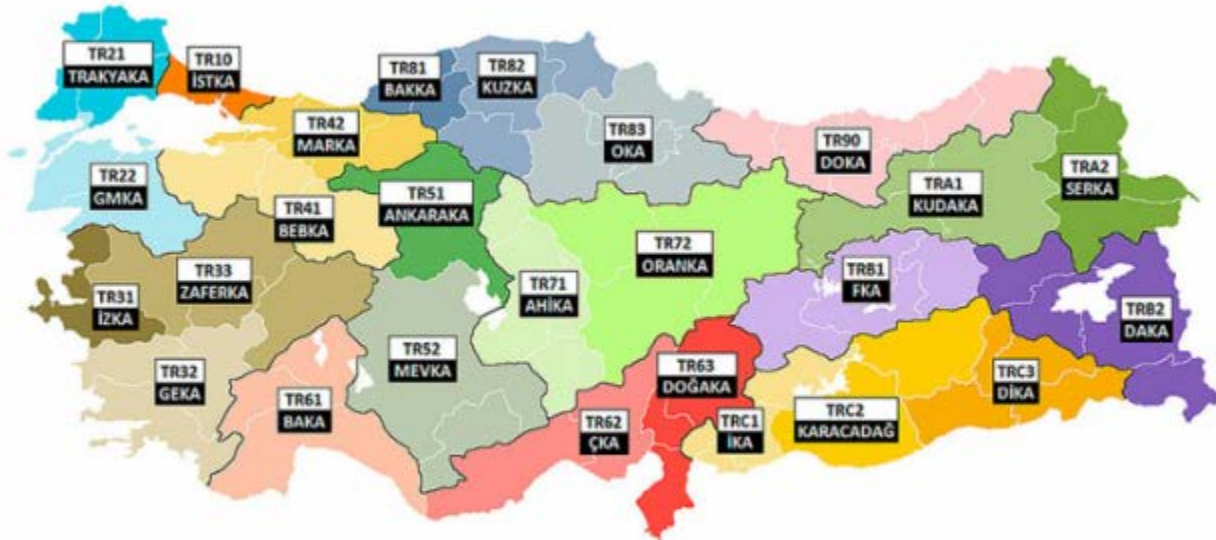
  

| KÜTAHYA              |        |     |     |              |      |      |      |      |      |        |     |     |
|----------------------|--------|-----|-----|--------------|------|------|------|------|------|--------|-----|-----|
| Aylar                | 1      | 2   | 3   | 4            | 5    | 6    | 7    | 8    | 9    | 10     | 11  | 12  |
| Ortalama sıcaklık    | 0,5    | 1,8 | 5,2 | 10,0         | 14,6 | 18,4 | 20,9 | 20,6 | 16,5 | 11,8   | 6,8 | 2,6 |
| 10°C altı (h)        | 744    | 672 | 684 | 401          | 161  | 1    | 0    | 0    | 70   | 344    | 617 | 720 |
| 27°C üstü (h)        | 0      | 0   | 0   | 0            | 0    | 0    | 99   | 120  | 0    | 0      | 0   | 0   |
| İklimlendirme önlemi | Isıtma |     |     | Havalandırma |      |      |      |      |      | Isıtma |     |     |
| Sera durumu          | ÜRETİM |     |     |              |      |      |      |      |      |        |     |     |





# DEVELOPMENT AGENCIES



# DEVELOPMENT ZONES



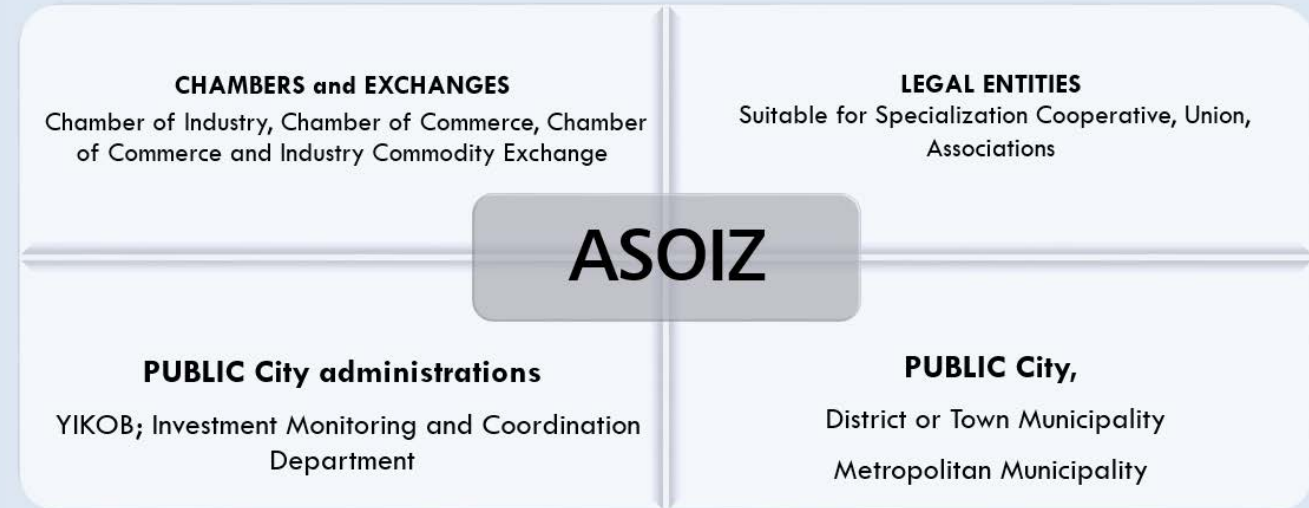


# What is **ASOIZ** ?

Agricultural Specialized Organized Industrial Zone (ASOIZ)

**Established by public legal person(s)**; It refers to the production area of goods and services aimed at ensuring **the integration of the agricultural and industrial sectors**.

# Who can develop **ASOIZ** ?



# Agricultural Specialized OIZ GEOTHERMAL ENERGY

- Greenhouses heated with geothermal energy source are installed fully automated.
- Heating is provided by the **central heating system** for energy efficiency.
- **Production and reinjection** is done in a completely closed circuit.
- All geothermal production is provided by the regional administration within the framework of the law.
- With the **centralized management** of all geothermal resources in the region, **the renewable feature of the geothermal resource is preserved.**



# ASOIZ GENERAL ADVANTAGES

In addition to the existing investment incentive practices in Turkey, ASOIZ also benefits from the following advantages.

- VAT exemption on land purchases.
- Permanent property tax exemption effective from the completion of the facility construction.
- Low water, natural gas and communication costs.
- Tax exemption for division/merging of parcels.
- Local government tax exemption for facility construction and operation.
- Solid waste tax exemption if the OIZ does not benefit from municipal services.



# TECHNICAL ADVANTAGES



## Social facilities

Companies can easily receive services such as Bank, School, Market, Fuel from the facilities within ASOIZ



## Laboratories

Manufacturers offer their products for sale with peace of mind with the laboratory to be established in ASOIZ.



## Export Office

With the export support office to be established in ASOIZ, foreign sales will be easier.



## Infrastructure

Within TDIOSB, Wastewater, Drinking Water, Irrigation Water, Potable Water, Electricity, Telecom, Road, Natural Gas and Drainage Services are offered to investors. For these services, companies only pay the ASOIZ Regional Directorate.



## Greenhouse Heating

Geothermal Energy Connection for Greenhouse Heating is presented ready at the beginning of the parcel.



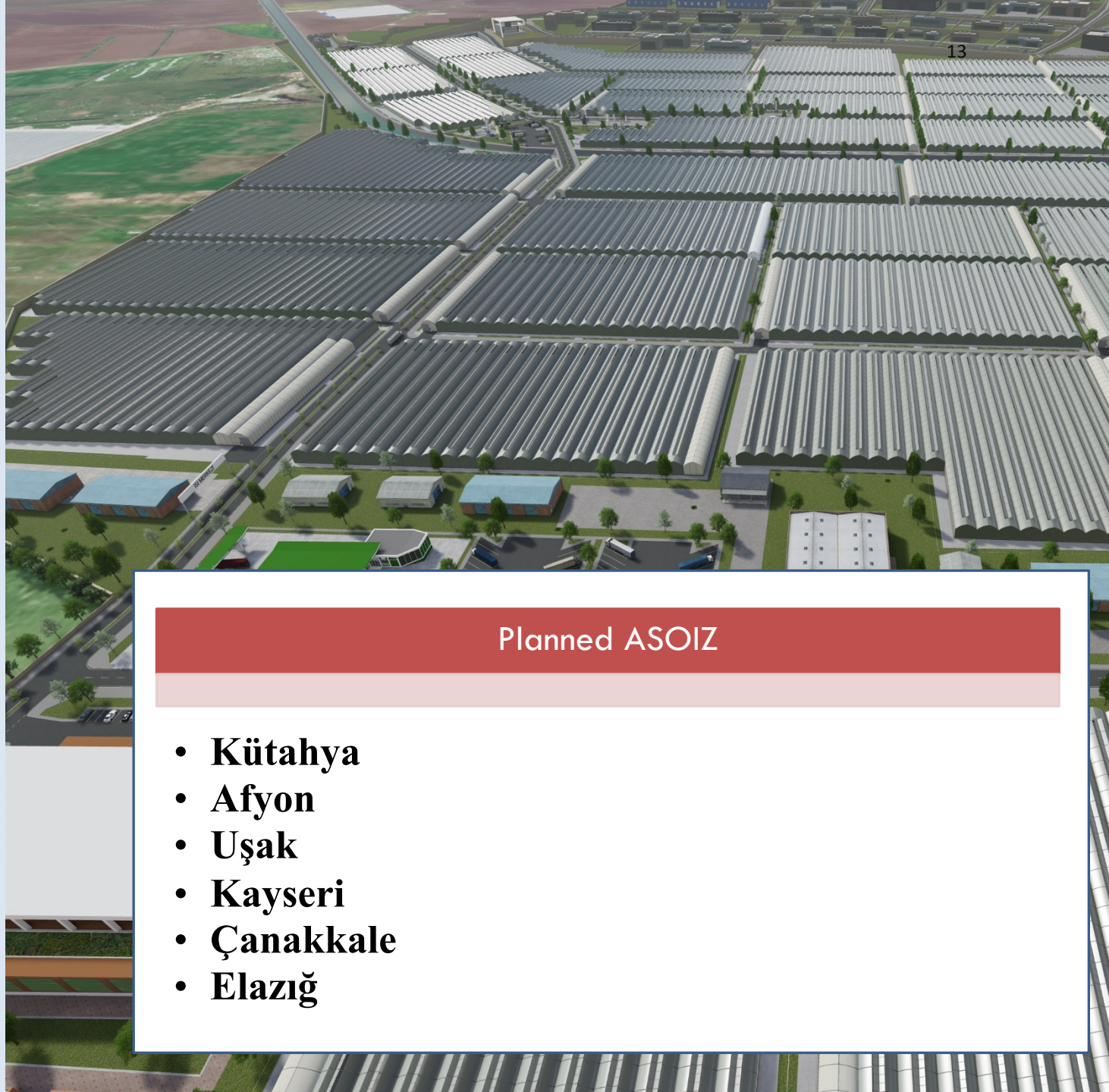
# TOTAL ASOIZ Projects in Türkiye

Geothermal Heated Greenhouses :11  
Other: 39

50



Four ASOIZ gain legal entity



Planned ASOIZ

- Kütahya
- Afyon
- Uşak
- Kayseri
- Çanakkale
- Elazığ

# DİKİLİ ASOİZ



## DİKİLİ ASOİZ

It is the Specialized Greenhouse Organized Industrial Zone, where modern technological greenhouse businesses and industry are located, heated by geothermal resources.

**TOPLAM ALAN : 3.038.894,97 m<sup>2</sup>**

### 33 Industry Parcel

It shows the industrial enterprises to be established for the processing of fruits and vegetables.



Total Industry Area  
**315.212,41 m<sup>2</sup>**

### 50 Greenhouse parcel

It shows the greenhouses where fruit and vegetable production will be made.



Total Greenhouse area  
**1.823.280,42 m<sup>2</sup>**

# Affiliate Structure



**İZMİR**  
governorship



**İZTO**  
İZMİR Chamber Of Commerce



**EBSO**  
Aegean Region  
Chamber of Industry



**İTB**  
İZMİR Commodity exchange



**EİB**  
EGE İHRACATÇI BİRLİKLERİ



**DİKİLİ**  
municipality



**BERTO**  
BERGAMA TİCARET ODASI



# Grant Benefits

## Rural Development Programs

You can apply for development projects focused on agricultural production.  
Grant application up to 1,500,000 TL within the scope of KKYDP program

## Bank Loan

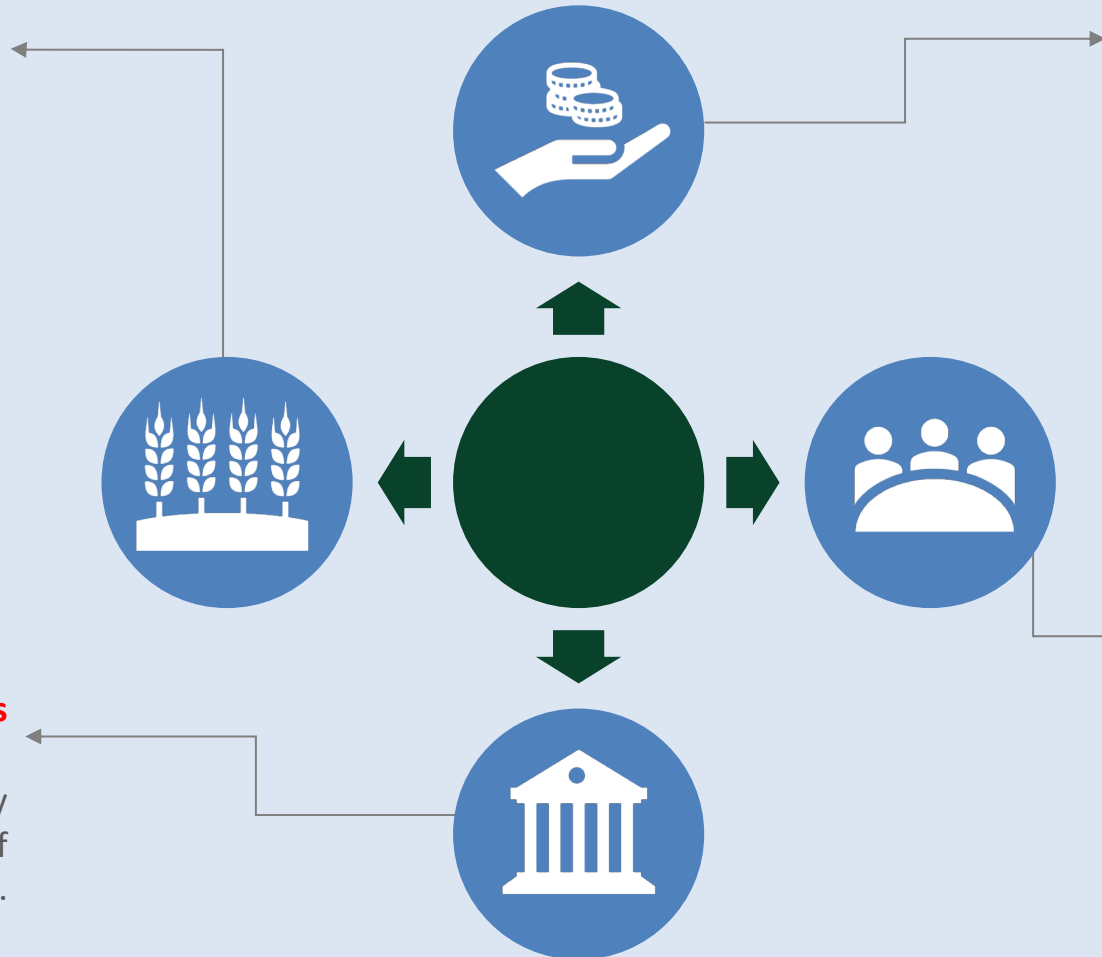
Up to 100% Subsidized Ziraat Bank Loan  
2 Years No Payment Total 7 Years Repayment  
Low Interest Loan Up to 120 Months

## Support from EU Projects

You can apply to EU Supported projects for greenhouse productions.

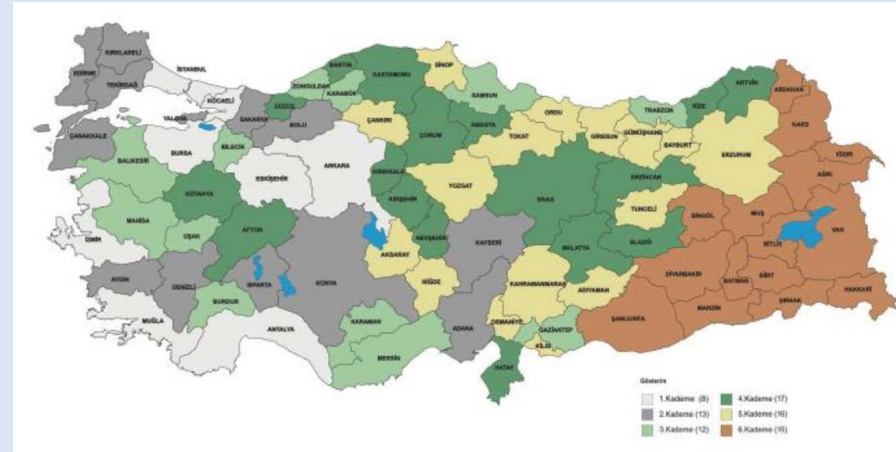
## Development Agencies

You can apply to the renewable energy and agriculture-oriented projects of the agencies.



# INCENTIVES

Since **modern technological greenhouse investments originating from geothermal are within the scope of priority investments**, they benefit from the **5th region incentives**. Industrial enterprises that will operate within the Organized Industrial Zone benefit from a sub-region incentives.



## REGIONAL INCENTIVE PRACTICES

| DESTEK UNSURLARI  |   | Regions |        |          |            |                   |            |
|---|---|---------|--------|----------|------------|-------------------|------------|
|   |   | 1       | 2      | 3        | 4          | 5                 | 6          |
| <b>VAT Exemption</b>  |   | YES     | YES    | YES      | YES        | <b>YES</b>        | YES        |
| <b>Customs Duty Exemption</b>   |   | YES     | YES    | YES      | YES        | <b>YES</b>        | YES        |
| <b>Tax Discount</b>   | Tax Discount rate                       | %50     | %55    | %60      | %70        | <b>%80</b>        | %90        |
|   | Tax Rate to be Applied                  | %10     | %9     | %8       | %6         | <b>%4</b>         | %2         |
|   | Within OIZ Investment Contribution Rate | %15     | %20    | %25      | %30        | <b>%40</b>        | %50        |
|   | Out Of OIZ Investment Contribution Rate | %20     | %25    | %30      | %40        | <b>%50</b>        | %55        |
| <b>Sigorta Primi İşveren Hisse Desteği<br/>Insurance Premium Employer Share Support</b> | Within OIZ Support Period               | 2 year  | 3 year | 5 year   | 6 year     | <b>7 year</b>     | 10 year    |
|   | Out fo OIZ Support Period               | 3 year  | 5 year | 6 year   | 7 year     | <b>10 year</b>    | 12 year    |
|   | Maximum Amount of Support               | %10     | %15    | %20      | %25        | <b>%35</b>        | Limitless  |
| <b>Investment Place Allocation</b>  |   | YES     | YES    | YES      | YES        | <b>YES</b>        | YES        |
| <b>Faiz veya Kar Payı Desteği<br/>Interest or Dividend Support</b>                      | Internal Credit                         | NO      | NO     | 3 point  | 4 point    | <b>5 point</b>    | 7 point    |
|   | Currency/Currency Indexed Loan          | -       | -      | 1 point  | 1 point    | <b>2 point</b>    | 2 point    |
|   | Maximum Support Amount                  | NO      | NO     | 1 Milyon | 1.2 Milyon | <b>1.4 Milyon</b> | 1.8 Milyon |
| <b>Insurance Premium Support (Employee Share)</b>                                       |   | NO      | NO     | NO       | NO         | <b>NO</b>         | 10 year    |
| <b>Income Tax Withholding Support</b>   |   | NO      | NO     | NO       | NO         | <b>NO</b>         | 10 year    |

# Grant Advantage

## SUPPORTING RURAL DEVELOPMENT INVESTMENTS (KKYDP) INVESTMENT ISSUES



- Processing, drying, freezing, packaging and storage of agricultural products,
- Fixed investments in agricultural production, **Modern Greenhouse Investments** (with air conditioning, irrigation and fertilization system)
- Renewable energy production facilities (to meet the needs of the facilities covered by the Communiqué),
- aquaculture,
- Processing, packaging and storage of manure of animal and vegetable origin.

| Nature of Investment                    | Project Amount Based on the Grant(TL) |
|---|---------------------------------------|
| New Facility                            | 3.000.000                             |
| Copmlition                              | 2.000.000                             |
| Capacity Building                       | 1.500.000                             |
| Technology Renewal and/or Modernization | 1.500.000                             |

**The lower limit** of the project amount subject to the grant is **250,000 TL**. Applications below this limit will not be accepted.

**50% of the project** amount based on the grant is supported by grant.

The **project budget** is prepared **excluding VAT**.



# Ziraat Bankası Credit conditions

Ziraat Bank loan upper limit is **50,000,000 TL**. It will provide a low interest loan for up to **120 months** with a total of **7 years repayment** with **2 years grace period**.

Greenhouse Loan terms:

- Minimum area has to be **1 decaire**.
- To be **registered to greenhouse registration system**
- All the forms and documentation has to be filled
- Project has to be **approved by district agricultural offices**.
- The **loan can max cover % 75 of the project** investment





# Ziraat Bankası Credit Advantages

Loans will be given with **50% interest rate during the investment period** and **50% interest rate during the operation period**. Farmers who fulfill all the conditions will receive a 50% discount in the investment period and 50% in the operation period, at a total of 100%.

| Production Topics                                     | Discount Ratio(%) |               | Kredit limit  |
|---|-------------------|---------------|---------------|
|   | Investment loan   | Business Loan |               |
| Geothermal, Renewable, Residual Energy Use            | %50               | %50           | 50.000.000 TL |
| Use of Domestic Certified Seeds, Seedlings / Saplings | %20               | %20           | —             |
| Organic Agriculture, Good Agricultural Practices      | —                 | %10           | —             |
| Young Farmer Entrepreneur (≤40 years old)             | %10               | %10           | —             |
| Female Farmer Entrepreneur                            | %10               | %10           | —             |
| Highest Discount Rate That Can Be Applied             | %100              | %100          | —             |



# Ziraat Bankası

## State Supported Greenhouse Insurance

**This insurance covers the damages to glass and plastic greenhouses, technical equipment and products in the greenhouse,** which are registered in the Controlled Greenhouse Registration System operating in integration with the Farmer Registration System and approved for insurance as a result of risk assessment.

### Premium Support

50% of the premium to be paid by our farmers is covered by the State.

### Scope

Glass and Plastic Greenhouses (Construction, Covering Material, Technical Equipment, Product)

### Coverage Package

It is within the scope of hail, fire, earthquake, vehicle collision, and storm and tornado, landslide, flood-flood, snow and hail weight coverage risk can also be included in the coverage according to the risk analysis - assessment result.

### Conditions

In order for the state to benefit from the 50% premium support, it is obligatory to register the greenhouse and the product information in it to the Farmer Registration System (ÇKS) and update it every year.



# Thanks for listening

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The data for this presentation obtained from ministry of agriculture and forestry

special thanks to Deniz Oruç.

