

HEATING, VENTILATING, AIR-CONDITIONING AND REFRIGERATION IN TÜRKİYE • ONE ISSUE PER YEAR • 2023

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**Regulation on  
Fluorinated Greenhouse  
Gases Updated**



**"Nearly Zero Energy Buildings"  
Era Begins in Türkiye**

**AWARD TO 4 MUNICIPALITIES  
at THE "OSCARS OF  
SUSTAINABILITY"**

**İSİB News**

**TÜRKİYE, RENEWABLE ENERGY  
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# Türkiye is recovering from the devastating earthquake disaster

**T**ürkiye was shaken by two earthquakes on February 6, 2023. AFAD announced the magnitudes of the two earthquakes on February 6 as 7.7 and 7.6, and their depths as 8.6 and 7 km. According to the US Geological Agency (USGS) data, seven different large and medium-large earthquakes, the smallest of which was 5.7, occurred within 11 hours from 04.17 on February 6, when the first earthquake occurred. Therefore, it is possible to talk about a chain of earthquakes in the region, especially on the first day.

Türkiye is still recovering from the disaster, but the scale of the devastation in 11 provinces is quite large. Therefore, we can say that the region's economic and social recovery process will continue for several years.

Louisa Vinton, Resident Representative of the United Nations (UN) Development Program (UNDP) in Türkiye, said that the cost of the earthquakes to Türkiye is estimated to be more than \$100 billion. Speaking on March 16 in Brussels ahead of a donor conference for earthquake victims, Vinton said, "It is clear from the calculations made to date, and what the government has presented and what international partners have verified, that the damage will

exceed \$100 billion." This is equivalent to 11.6 percent of Türkiye's gross domestic product (GDP) for 2021. Vinton, who attended the meeting via video from Gaziantep, said this figure only covers Türkiye for now. Vinton described Hatay, one of the hardest-hit provinces in Türkiye, as a "scene of doom".

On March 6, President Recep Tayyip Erdoğan announced that the death toll from the February 6 earthquake in Kahramanmaraş had risen to 46,104. "The number of collapsed, emergency collapse and heavily damaged buildings in our 11 cities in the earthquake zone reaches 230,000 and the number of independent sections in these buildings reaches 645,000," Erdoğan said. The number of people staying in tents was announced as 1 million 440 thousand.

The earthquake not only showed us the mistakes we made, but also taught us lessons that have been paid dearly. It is the greatest wish of all of us that our country never repeats its mistakes again. New constructions in the region will be built with great care, taking into account the earthquake reality. Many municipalities outside the disaster zone have created emergency action plans and started to take measures quickly against possible new disasters.

durability tests of existing buildings and retrofitting-evacuation works are continuing at full speed.

In the process, countries from all over the world rushed to help. The teams who returned to their countries with tears in their eyes told that people who had lost everything were carrying food and tea to them. All the teams that came to support and help us in this great disaster, all the aid sent, all the means mobilized and all the people who hugged each other in the disaster area without discriminating language, religion and nation reminded each of us that all the peoples of the world are brothers and sisters and that love is the strongest medicine. We thank everyone and hope that such a disaster will never happen again anywhere in the world.

**Gökçen Parlar Ünal**

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## 1915 Çanakkale Bridge was Selected as the Most Successful Project of the Year in Construction Methodology

The International Roads Federation (IRF) selected the 1915Çanakkale Bridge and Motorway Project as the most successful project of the year in the field of construction methodology, due to innovative methods and engineering solutions implemented in a record four-year completion time. 1915 Çanakkale Bridge was awarded the first prize in the Construction Methodology category at the award ceremony held in Washington, the capital of the United States, on the evening of November 2, 2022 by the International Road Federation (IRF).

Founded in 1948 and the umbrella organization of the international highway industry, the International Road Federation (IRF), based in the USA - Washington, held the IRF Global Roads Achievement Awards within the scope of the Roads to Tomorrow Conference held in Washington between October 31 and November 3, 2022.



## Aironn Fan Systems Preferred in Europe's Tallest Building

Aironn Fan Technology was preferred in the 360-meter building of the Central Bank, which is located in the middle of the Istanbul International Finance Center project, which is built as the tallest building in Europe, together with the antenna towers. With a construction area of 2 million 500 thousand square meters, including 560 thousand square meters of offices, 90 thousand square meters of shopping malls, 70 thousand square meters of hotels and 60 thousand square meters of residences, the Istanbul International Finance Center will employ 30 thousand people. Aironn A.Ş. manufactures all block fans and the parking lot jet fan system in the building of the Central Bank, which is preparing to move to its new campus, which has 67 floors including the basement floor on a construction area of 15 thousand 960 square meters on 3328 block 10 parcel.



Each of the fans produced in Aironn A.Ş.'s facility, which is equipped with test laboratories and has an infrastructure suitable for Industry 4.0, is shipped after completing quality control tests. While adding the Central Bank to its mega project references, Aironn A.Ş., the expert organization of fan engineering, stands out in above-the-line projects with its energy efficient, operation and environmentally friendly devices and globally sought-after and preferred certification.

## Aldag Signature in Turkmenistan's "First Smart City"

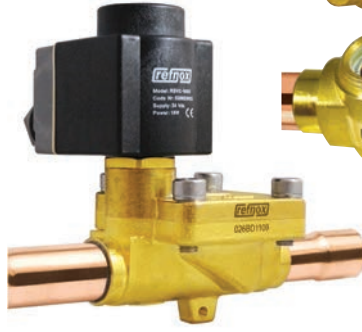


Ahal's new center will be Turkmenistan's first "smart" city. The new administrative center of Ahal province is being built in a picturesque place at the foot of Kopetdag, and to preserve this natural beauty, "green" technologies should be widely used. Intelligent systems are being used to provide all opportunities for a comfortable life, productive work, good rest, sports, creativity. The new residential center is equipped with modern technologies and a digital system, including primary and secondary vocational schools, art schools, a health house, a secondary school for 720 people, an International School of Horse Breeding, a kindergarten for 320 people, a stadium for 10 thousand people, parks, entertainment and shopping areas, a hotel, a bank, a multidisciplinary sports complex and a 360-bed hospital, an oncology medical center with 150 beds, a maternal and child health medical center with 150 beds, and 7-storey residential buildings.

Aldag A.Ş. also took its place in Turkmenistan's first "smart city". Fancoil units with a cooling capacity between 2.28 - 4.10 kW, produced at Aldag A.Ş. Manisa Akhisar Plant, will be used in this new environmentally friendly living center. These units are produced with digital control technologies in line with project demands and expectations. In addition, 3 millimeter thick thermal insulation that prevents sweating to ensure longevity, construction made of 0.8 -1 millimeter galvanized sheet metal, painted with electrostatic powder paint and baked, are among the design features. In addition to a modern, aesthetic and stylish appearance, the units are equipped with ABS plastic louvers and movable side covers for easy access to the control panel and a specially designed slide-out filter that can be easily removed. These filters are G2 class, washable and made of polypropylene material.



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## European HVAC&R Sector Met in Antalya on October 25-28, 2022

ISKID (Air Conditioning, Refrigeration and Air Conditioning Manufacturers Association) hosted Eurovent Summit, Europe's largest HVAC&R sector meeting organized every two years, with the European EUROVENT Association this year.

The main theme of the Eurovent Summit was "Building Bridges" and the focus of Eurovent Summit was to build bridges for manufacturers and consultants, planners, installers, trade associations and bureaucrats between Europe and neighboring geographies for more sustainable, community touching, environmentally sensitive industrial products and systems.

Eurovent Summit brought together more than 500 key industry representatives from Europe and beyond, creat-



#BuildingBridges

ing new business partnerships. In more than 50 meetings organized during the 4-day summit, current developments in the sector were discussed in sessions and panels for professionals working in the fields of "Indoor Air Conditioning (HVAC)", "Process Cooling" and "Food Cold Chain Technologies".

## Alarko Carrier Will Open a New Market in Europe with its Heat Pump



Turning its route to export, Alarko Carrier aims to increase its export share in its turnover to 30 percent in five years, with one of its new products, the heat pump.

Alarko Carrier, one of the pioneers of the Turkish Air Conditioning industry, has turned its route to exports in recent years. The brand, which exports 95 percent of its air handling units, aims to increase its exports to Europe for the heat pump, where it will start production. The brand has announced that it will take its place in the South American, Middle Eastern and European markets by the end of the year.

### "This year has been the year of R&D"

Stating that 2022 is the year of R&D and innovation for Alarko Carrier, General Manager Cem Akan said, "We conduct joint studies and tests with TÜBİTAK and universities in R&D facilities to continuously improve our products. We also develop our products with technology transfers from Carrier. This year, we allocated approximately 2 percent of our turnover to R&D investments in order to develop high-tech products suitable for the needs of the Turkish and world markets. With our R&D team of 55 people in total, we are working on hydrogen combi boiler, heat pump, circulation pump, new capacities and connecting to automation, EC fan fancoil and R454B rooftop."

## International Luxury Brands Preferred ATLANTİK EWH Heat Pumps

Istinye Park Shopping Mall, one of the most prestigious shopping malls in Istanbul, continues to host world brands. HERMES and CHANEL stores, which recently took their place in the shopping center, preferred ATLANTİK brand water source heat pumps for the air conditioning system.

New generation ATLANTİK EWH series water source heat pumps are used in many prestigious stores, especially large retail stores within the scope of the project.

ATLANTİK EWH series heat pumps, which rank first in the preference of stores in the retail sector with their advantageous features such as low electricity consumption, low noise level, easy fault detection, ease of installation, fast service and fast delivery from stock, have reached 11 thousand references in more than 150 shopping mall and office projects. Thanks to its ability to operate at maximum water inlet temperatures of 50 °C in cooling and 40 °C in heating, it can operate for a long time



without malfunctioning in case of possible problems caused by the tower-boiler system. The display of 19 fault codes on the smart thermostat offered as standard provides the user with ease of operation and reduces service and maintenance costs.





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## Daikin to Invest 3.5 Million Euros for New R&D Center Building

**D**aikin will start construction of its new R&D center building in April 2023. The existing R&D center, which currently operates on an area of 2,700 square meters, will reach a size of 6,000 square meters with the new investment. The investment cost of the new R&D center building, which is planned to be commissioned in April 2024, has been determined as 3.5 million Euros.

The new R&D center building, whose construction will start in April 2023, is designed as 4,500 square meters. One thousand 200 square meters of the existing R&D center building will be moved to the new building. Thus, the need for new assembly and R&D space that potential growth will bring will be met. The new building, which will improve the office space of R&D employees, will also re-



spond to the increase in employment in both production and R&D in line with potential growth. Serving as one of the most powerful R&D centers in the region, the center has so far developed split air conditioners, natural gas boilers and combi boilers, duct and cassette type fan coils and air handling units for individual or central systems for Türkiye, Europe, Middle East, North Africa and CIS countries.

## Europe's Highest Capacity Laboratory Testing Data Center Cooling Systems Opens in Türkiye

**W**ith 365 Performance Center, Systemair Group's first data center test laboratory investment in the world, Türkiye's strategic location and export potential are carried to the global arena.

Sweden-based global air conditioning giant Systemair opened Europe's state-of-the-art Data Center Test Laboratory 365 Performance Center in Türkiye. Systemair, which exports patented technologies produced in Türkiye to more than 25 countries, has invested 20 million TL in its factory in Dilovası and the laboratory is the highest capacity data center test laboratory in Europe. The facility, which is Systemair Group's first investment in the field of data centers, is aimed to bring a breath of fresh air to data center cooling solutions in the world.

Leading the industry in data center solutions for many years, Systemair continues to make a difference with its advanced vision in this field, which is one of the most important investment areas in the world. The company, which produces carbon-efficient and highly efficient devices, works with consultants and designers to develop the best engineering solution and optimize the environmental impact of its products, offers ready-made solutions for data centers as well as turnkey solutions customized according to the conditions of the en-



terprises. Systemair, which recently signed a giant investment to respond to the increasing air conditioning needs in data centers, chose Türkiye for this investment. Opening 365 Performance Center, the most modern and high-capacity data center test laboratory in Europe, the company aims to open a new curtain in data center cooling solutions worldwide. With 365 Performance Center, Systemair will carry out factory acceptance tests, which are indispensable for data center cooling systems, within its own structure. With this investment, Systemair aims to carry the strategic position and export power of its production facility in Türkiye to a different point.

## Çukurova Isı Exhibited Blackheat Tubular Radiant Heaters Produced in its Factory in Türkiye for the First Time in Italy



**Ç**ukurova Isı, one of the leading and leading brands of its sector with its high-tech radiant heating solutions, is at the Mostra Convegno Expocomfort Fair, which is held in Milan, Italy and is one of the most important specialization fairs of the world, especially for the air conditioning sector; It won great acclaim with its environmentally friendly, efficient and innovative products.

Çukurova Isı, which presents Goldsun electric heaters, Goldsun ceramic plate radiant devices and Silversun tubular type radiant heaters to the visitors, exhibited the Blackheat tube radiant heaters, which it started to produce in its factory in Türkiye with the Roberts-Gordon license, for the first time at the Mostra Convegno Expocomfort Fair.

Çukurova Isı signed a license agreement with the American Roberts Gordon LLC, for which it has been the distributor in Türkiye and the Middle East for more than 30 years, in the last quarter of 2021 for the manufacture of Blackheat brand tubular radiant heating systems. With this agreement, the company, which is Roberts-Gordon's "European Production Base", produces all of Roberts Gordon's Blackheat brand products in Türkiye; It also obtained the right to export to EU countries, the UK and the countries around Türkiye.

Blackheat tubular radiant heating systems, which stand out in the sector with their high efficiency values, provide up to 94.6% combustion efficiency, providing energy savings of up to 50% in the heating of businesses and industrial facilities. Blackheat technology, which reduces the energy consumption in businesses and industrial facilities, contributes to the development of a climate-free economy by reducing carbon emissions from heating.





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- Centrifugal Pumps
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- Expansion Tanks
- DHW Storage Tanks
- Plate Heat Exchangers
- Accessories

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- Fire Pump Control Panels
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## Alternative and Natural Refrigerants Webinar Held with a Large International Participation

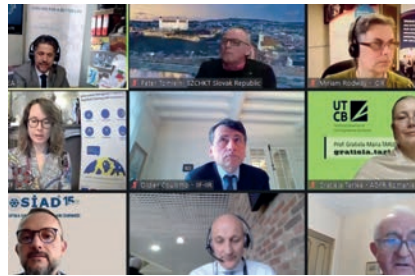
An international online webinar on “Alternative and Natural Refrigerants” was organized within the framework of the REAL Alternatives 4 LIFE learning program project, of which SOSİAD from Türkiye is one of the National Lead Partners. The webinar attracted great interest worldwide and was watched by 370 participants. The presentations in English were simultaneously translated into six languages, including Turkish.

The training on “Use of Flammable Refrigerants” was given by Marino Bassi, Expert Trainer from ATF Italian Association of Refrigeration Technicians, and Kivanç Aslantaş, Member of the Board of Directors of SOSİAD, made a presentation on “Sample Applications for Carbon Dioxide Systems”.

The first speaker of the seminar, Marco Buoni, President of the European Air Conditioning and Refrigeration Contractors Association (AREA), introduced the REAL Alternatives 4 LIFE learning program. While giving information about the materials on the website [www.realalternatives.eu](http://www.realalternatives.eu), Buoni drew attention to the following points: “The training materials on the website are available in 17 languages to make the most of the 20 countries involved in the project. There are free downloadable training materials on refrigerants including flammable refrigerants (HCs, HFOs, Low GWP mixtures), Ammonia. The training consists of 9 modules. Licensed trainings are provided in laboratories with the necessary equipment in each country, focusing on safety issues, with best practice examples. These trainings can be on-site or remote. Theory and practical certifications continue in the project member countries. Over 2 thousand people have been certified so far.”

“We Need Better Energy Efficiency, Low Energy Consumption Systems and Use of Renewable Energy”

Didier Coulomb, General Manager of IIF-IIR, gave information about IIR, which was founded in 1908 and currently has more than 950 member organizations from 59 countries, in his presentation titled “The Importance of Training and Certification”: “The importance of refrigeration is increasing day by day all over the world. The need for cold chain for food safety is in-



creasing. Population is increasing, cooling capacity is ten times less in developing countries than in developed countries. One out of every two medicines sold, especially vaccines, is sensitive to heat. Global energy needs for air conditioning will triple by 2050. New technologies in IT, biotechnologies and space exploration require temperature stabilization. Heat pumps are likely to play a unique role in the energy systems of the future. Gas liquefaction (hydrogen, CO<sub>2</sub>), cryogenic applications in hospitals, and many more are creating a need for more skilled technicians in refrigeration. Refrigeration is responsible for 7.8% of global greenhouse gas emissions. Refrigeration accounts for 20% of global energy consumption and the graph is rising. We need better energy efficiency, low energy consumption systems and the use of renewable energy. We need to promote the use of low GWP and natural refrigerants as much as possible. Low-GWP refrigerants can be flammable, toxic or operate under high pressure. In the EU, technicians working in this field must be certified.”

Blanca Gomez (CNI) from Spain, Liana Ghahramanyan (Shirakatsy Lyceum) from Armenia, Prof. Gratiela Tarlea (AGFR) from Romania, Stepan Stojanov (SCHKT) from Czechia and Peter Tomlein (SZCHKT) from Slovakia took the floor to share their experiences on the training process of REAL Alternatives 4 LIFE project partners in Europe. The speakers gave information about the trainings, training centers and the number of certified technicians in their countries within the scope of the project.

Gabriela Biernat, Sales Representative of IGLOO, certified by Prozon Foundation, commented on the “Flammable Refrigerants Training” she received.

Graeme Maidment, Professor at London South Bank University, summarized

the Net Zero process that started with RealZero in 2008, continued with RealSkills and extended to the REAL Alternatives project.

Miriam Rodway, Chair of the IOR Board of Directors, gave a brief information about the “Women in Refrigeration” Network, which they established in 2016 on June 23rd Women Engineers Day, and invited everyone to join this network, whether they are IOR members or not. Miriam Rodway, in her speech titled REAL Alternatives E-Learning Experience, summarized the 9 training modules with a special emphasis on the 1st and 2nd module titled Introduction to Alternative Refrigerants and Safety and Risk Management. Mr. Rodway provided information on the types of E-Learning Certificates and the requirements to apply.

ATF and CSG's Expert Trainer Marino Bassi's informative presentation titled “Handling Flammable Refrigerants” summarized the following topics: R32, R1234yf, R123ze, R290 (Propane), R1270 (Propane) and R600a (Isobutane) which are flammable alternative refrigerants, including R744 (CO<sub>2</sub>) and R717 (Ammonia-NH<sub>3</sub>), general information on their characteristics, classification of equipment layouts for safety reasons, service procedures, risk assessment, protective measures, service equipment considerations, leak tests, refrigerant charging and recovery.

The last speaker of the webinar, SOSİAD Expert Trainer Kivanç Aslantaş; In his informative presentation titled “Sample Applications for Carbon Dioxide Systems”, he conveyed information under the following headings: History of the use of carbon dioxide in refrigeration systems, main features, operating pressure, system types, use of pressure relief valves, performance, special equipment used, component replacement, safety, legal obligations, operating environment, charging and discharging, maximum charge limit, fluid leaks and market situation, suitability. The webinar ended with a Q&A session moderated by Marco Buoni. With this webinar, it was once again emphasized how important the use of “New Generation and Natural Refrigerants” is in terms of a sustainable environment and energy efficiency with precautions and proper design.



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## Daikin Türkiye Opens VRV Technology Outdoor Unit Production Facility with 13 Million Euro Investment

**D**aikin Türkiye commissioned the production facility of outdoor units using VRV technology, which will increase exports by 100 million Euros. Many high-level bureaucrats also attended the opening ceremony of the production facility of outdoor units using VRV technology, which breaks new ground in central air conditioning, with the participation of Minister of Industry and Technology Mustafa Varank.

Daikin Türkiye will increase its exports by 100 million Euros, which was 262 million Euros according to the results of the 2021 fiscal year, with the new VRV production facility commissioned at its factory in Hendek on May 25, 2022. Equipped with the latest technology, the production



facility, which was completed in 4 months and has an investment cost of EUR 13 million, will produce approximately 50 thousand VRV outdoor units annually, as well as provide employment for 200 blue-collar workers. While 30 percent of the production will be utilized in the domestic market, 70 percent will be exported to Azerbaijan, Uzbekistan, Turkmenistan,

Kazakhstan, Kyrgyzstan, Armenia, Tajikistan, Georgia, Northern Iraq, Mongolia and TRNC in the Middle East and Daikin Türkiye, thus making a significant contribution to the national economy. VRV outdoor units produced with Japanese technology are recognized as products with the highest seasonal efficiency in air conditioning systems.

## Combining Over Three Centuries of Experience with the Technology of the Future, De Dietrich is in Türkiye

**D**e Dietrich, one of the six global brands of BDR Thermea Group, has made an ambitious entry into Türkiye. Combining more than three centuries of experience with the technology of the future and elegant French design, De Dietrich is recognized as an expert in the air conditioning sector worldwide. In Türkiye, De Dietrich offers premium products and solutions in four categories: heating, cooling, renewable energy and water heaters with the slogan "For those who want a lot". The brand face of De Dietrich in Türkiye, which is also very ambitious in terms of customer experience and promises fast and competent after-sales service to its users, is the famous actor Yetkin Dikinciler, who has won the love, admiration and trust of his audience with his charisma, eloquence, artistic background and successful works for many years.

### De Dietrich Kombi Targets 25 Percent Market Share in Premium Segment

BDR Thermea Türkiye CEO Ender Çolak said, "As you know, BDR Thermea Group continues its activities in Türkiye under the Baymak brand. I believe that De Dietrich, which is both an important part of the BDR Thermea Group, which brings a sustaina-



ble future closer and makes it accessible with smart air conditioning solutions, and one of the world-famous brands of the group, will add strength to our power in Türkiye. With De Dietrich, we aim to reach a total of 50 thousand combi boilers, 20 thousand air conditioners and 2,000 heat pumps in the premium segment in Türkiye within three years with a 25% market share. We are growing day by day with our 24/7 customer service support line, our authorized service point and our understanding of perfect customer satisfaction. In 2023, we aim to reach 400 dealers and 250 services in our journey that we started with 150 dealers and 52 services."

## "Most Successful Business Partner: Form"

**F**orm Endüstri Tesisleri was selected as the most successful business partner of 2021



by the German company Lamilux. Form, which is the distributor of Lamilux brand in Türkiye in smoke evacuation, natural ventilation, natural lighting and roof skylight systems, was deemed worthy of this award with its successful sales graph.

German Lamilux, which has decades of experience in the field of flat roofs, continues to develop its products and customize them to the needs of its customers with the value it attaches to R&D. Lamilux Roof Skylight Systems and Smoke Evacuation Covers, offered for sale by Form Endüstri Tesisleri, bring innovation to the building sector with their environmentally friendly and innovative product features. These covers, which consist of a frame in the roof connection and an acrylic glass piece on top, prevent the effect of the sun's harmful rays with SUN Pro technology. The product, which also has a skylight system function, provides natural lighting in the places where it is used. With its environmentally friendly structure, it helps to minimize energy expenditures of businesses.



## Klea is at the Service of Turkish Refrigeration Sector with Frigoduman Assurance

**F**rigoduman will respond to refrigerant gas demands from America and Europe with Koura's Klea brand products. Frigoduman announced its new product group after the refrigerant gas filling facility investment completed in 2021. Klea 134a, one of the refrigerant gases shipped to Türkiye from Koura's facilities in the UK under the Klea brand, is of American origin.

The company, which has been supplying the Klea brand to the world for many years under the name Mexichem, changed its name to Orbia with its sub-companies such as Netafim, Wavin and Koura, which were separated according

to industries as a result of the acquisitions it made for a period, and was completely renewed in 2019 with its new mission and identity.

Koura, Orbia's fluorinated solutions group, produces fluorine-based products, technologies and services. With two active fluorine mines and long-standing material knowledge, it produces chemicals for industries such as healthcare, pharmaceuticals, construction and transportation. Klea, a refrigerant gas brand, has gases other than R134a, R404a, R407c and R410a that are alternative to carbon dioxide, low pressure refrigerant gas, alternative to



gases with high KIP value such as R22 and R404a, and low carbon dioxide equivalent. They also continue to work on alternative gases that may be needed. Frigoduman aims to introduce new generation gases to the Turkish refrigeration sector together with Koura and to support its business partners in the transition to new generation gases.

## Friterm Evaporators Receive Eurovent Certificate

**A**s a result of long-term R&D studies, Friterm took its first step in Eurovent's Heat Exchanger (HE) certification program by certifying its Dry Coolers in August 2018. Having completed the certification process for the Condenser product group as of February 2020, Friterm completed the certification process for the DX (Direct Expansion) room cooler product group as of December 2021 and at the end of the process, it received Eurovent certification approval by the certification body ECC (Eurovent Certita Certification) and expanded its certified product range. In the statement made by the company,

"Friterm, which favors clearly defined and reliable product performances in the sector, has proved the reliability of the data presented in its products in the parameters of 'capacity', 'air flow rate', 'engine power', 'pressure loss' and 'sound level' by certifying its products. Friterm, which is one of the 9 companies in the world with Eurovent certification in dry coolers, condensers and DX room cooler product groups, continues to maintain its Eurovent Certification leadership in the sector as the only company in Türkiye with Eurovent certified dry coolers, condensers and room coolers."



## General Filter Havak and BION Cooperation in Türkiye Molecular Filtration Market

**G**eneral Filter Havak and BION companies will now walk together in the Turkish market on "Molecular Filtration". ISTANBUL and ANKARA GENERAL FILTER HAVAK & BION "Molecular Filtration" seminar, where activated carbon, zeolite and alumina based filter media combinations, filters and filter equipment, which are tested and applied as a result of the latest technological researches on the retention of certain gases affecting corrosion, odor and indoor air quality with the most efficient chemical media, were introduced and application details were conveyed, was complet-



ed with intense participation. The wide range of products and up-to-date technological solutions offered in the field of Molecular Filtration are used in hospitals

and petro-chemical plants, as well as in data center projects where molecular filtration is important, waste water treatment plants, kitchen ventilation.

## Perfect Consumer Satisfaction Award to Ferroli Türkiye



The A.C.E. Awards, organized by Şikayetvar, Türkiye's most comprehensive and end-to-end platform for measuring customer satisfaction, were held at Çırağan Palace Kempinski on Tuesday, March 8. Ferroli Türkiye - Bestherm İklimlendirme received the Diamond award in the Heating Systems category of "Achievement in Customer Excellence - Excellent Customer Satisfaction" organized by şikayetvar.com. After Sales Services crowned its success with the first prize again this year. Seyit Gürkan Arık, Sales and Marketing Manager, received the award together with his team: "As Ferroli Türkiye family, we are honored to receive this award as the leader for 2 consecutive years. I would like to thank our hard-working colleagues working in Production, R&D, Sales and other departments who contributed to our success as much as After Sales Services. I dedicate our award to the women employees of our company and celebrate International Women's Day for all women. I wish us continued success as a team and I would like to present our award to Serap Erakçora, our Assistant General Manager, who is the chief architect of our organization."

Şikayetvar, where 150 thousand brands, 7.5 million individual members and millions of monthly visitors meet, has determined the brands that provide excellent customer experience for the seventh time with 20 years of experience. At the A.C.E Awards, which is based on the complaint management carried out by brands, Şikayetvar conducts over 1 and a half million surveys annually for complaining customers. The A.C.E Awards presented to brands are measured based on the "Customer Experience Index" created by surveys conducted with real consumers.

## "Our Natural Gas Reserves in the Black Sea, Reaching 710 Billion Cubic Meters, Will Reduce Our Dependence on Foreign Energy"

Natural Gas Equipment Industrialists and Businessmen Association (DOSIDER) made a statement on "Türkiye's current situation in natural gas". The statement made by the association is as follows:

"The addition of 58 billion cubic meters of natural gas reserves found by our Fatih Drilling Ship in Çaycuma-1 drilling to the natural gas reserves discovered in the Black Sea in recent years, reaching a total of 710 billion cubic meters of natural gas reserves in the Black Sea, is a very important development that will reduce our country's dependence on foreign energy. Considering that almost all of the natural gas, which has become indispensable for the people of our country, is currently imported from abroad, both these new gas reserve discoveries and the fact that the total capacity of the Silivri natural gas storage facility, the new phase of which was inaugurated last week, has reached 4.6 billion cubic meters, as well as the capacity development works in the Tuz Lake storage area are developments that we attach great importance to and closely follow in terms of natural gas supply security.

We are pleased to see that our country, which has a strong infrastructure with 7 international natural gas pipelines, 4 LNG facilities including 2 floating stor-



age and gasification units (FSRU) and 2 underground natural gas storage facilities, is about to become a center in natural gas trade.

In addition to the 710 billion cubic meters of natural gas reserves in the Black Sea, which we hope will contribute significantly to our country's needs in the coming decades, our country is also in a critical position in terms of transporting Eastern Mediterranean, Turkmen, Iraqi and even Russian gas, which is likely to be supplied to the market in the coming period, to European markets. With the advantage of having the only gas trade market in the region, we believe that our country is moving towards its goal of becoming a center in natural gas trade".

## Eneko Becomes a New Member of Eurovent

The Eurovent family continues to expand with its newest member, Eneko, one of Türkiye's leading ventilation and air conditioning manufacturers. Eneko was founded in 2004 with headquarters in Izmir, Türkiye, focusing on manufacturing high efficiency ventilation and air conditioning equipment. The production facility has a test laboratory that performs internal and external leakage, pressure and thermodynamic tests. On Monday, September 19, at the Eurovent Board of Directors meeting held at its headquarters in Brussels, Belgium, Eneko was officially approved to join the Eurovent family.

Following the approval of the membership, Eneko R&D Project Engineer Alper Mete Genç said, "Being accepted as a



Corresponding Member of the Eurovent family will give our company a new vision. With some of our products being Eurovent certified, Eneko will not only be a part of the Eurovent certification, but also an organization that contributes to the Eurovent family. The mutual sharing of knowledge and experience will increase the value of both parties. I would like to thank all my managers and colleagues who contributed to our becoming a part of Eurovent."



## İmbat Signature at International Airports

İmbat aircraft passenger walking bridge air conditioners provide both effective performance and ease of use with their lightweight body structure in dimensions compatible with the bridge and the ability to operate at different outdoor temperatures. İmbat HSE-U series passenger walking bridge air conditioners, which can operate in different outdoor weather conditions, are designed as 4 models in the range of 15-38 kW. One each is used in the fixed and movable parts of the bridge that connects to the aircraft and provides air conditioning inside the bridge in 20 minutes. The devices are manufactured with high efficiency, scroll type compressor suitable for no-load take-off with IDV technology, axial type, self-motorized, silent and highly efficient condenser fan, EC plug circulation fan.

İmbat passenger walking bridge air conditioners, a hundred percent domestic design product, have been designed for the



world markets and are used in major airports of the world today.

As the first references; Russia Khabarovsk airport, Kazakhstan (Turkistan, Hazret-Sultan International Airport), Niger and Philippines airports were preferred.

In 2022, the walking bridges of Sierra Leone airport in southwest Africa will be air conditioned with İmbat air conditioners. In addition, the Cukurova Airport, which is under construction between Adana and Mersin and will be opened shortly, also has İmbat's signature on its walkway bridges.

## POMSAD President Nurdan Yücel Elected as CEIR President

CEIR (European Association of Faucet and Valve Industrialists), EUROPUMP (European Association of Pump Manufacturers) and PNEUROP (European Association of Compressor, Vacuum Pump, Pneumatic Tools and Auxiliary Equipment Manufacturers) associations held their annual meetings and General Assemblies jointly on May 9-10-11, 2022 in Brussels, the capital of Belgium.

While the committee, commission, general secretaries, working groups and board meetings of the associations were held separately, the topic of "Sustainability and De-carbonization" was discussed at the joint conference attended by all participants on 10 May 2022. Alexandere Lacour, CEO of Someflu representing EUROPUMP, Nurdan Yücel representing CEIR, Sofia Svingby, Vice President of Sustainability at Atlas Copco representing PNEUROP, Tom Van Ierland, Head of DG Clima from the European Commission and Maria da Graça Carvalho, Member of the European Parliament took part in the conference as speakers. Following the joint conference, participants came together in parallel technical sessions.



Founded in 1959 and representing 11 countries, 8 of which are EU members, through national associations and companies, CEIR (European Association of Faucet and Valve Industrialists) elected Nurdan Yücel, President of POMSAD (Turkish Pump and Valve Industrialists' Association) as the President at its General Assembly held on May 10, 2022. Taking over the presidency from her Spanish colleague for a two-year term, Yücel became the first female president in CEIR history. POMSAD has been a member of CEIR, which represents more than 300 companies, a turnover of 11 billion dollars and an employment of 50,000 people, since 2003 and has been representing our country in the CEIR Board of Directors since 2005.

## Prof. Dr. Şirin Tekinay is the First Turk to Receive Europe's Prestigious Engineering Award



The European Society for Engineering Education SEFI (Société Européenne pour la Formation d'Ingénieurs) awarded the SEFI Fellowship to Prof. Dr. Şirin Tekinay this year. Prof. Tekinay is the first Turkish recipient of this award since 1995. Each year, SEFI honors a scientist who has made valuable contributions to engineering research, education and training worldwide with the SEFI Fellowship award.

Prof. Dr. Şirin Tekinay received her award from Prof. Hannu-Matti Jarvinen, President of SEFI, at a ceremony held at Barcelona Polytechnic University. In her speech at the ceremony attended by nearly 400 delegates from all over Europe, Prof. Tekinay underlined the growing importance of international solidarity and cooperation in the field of engineering. Prof. Tekinay said: "This year, the map of the SEFI Fellow Award program has been completed with the Eastern tip of Europe. I was born and raised in Istanbul, and at an early age, I chose engineering as a way to improve and develop human life. Today, we know that not only human life, but everything that needs to be done for the sustainability of our world, for life on earth, for peace, requires engineering. So I accept this award in honor of the rightfully worried and angry young people all over the world, especially girls, and I invite all young people to become engineers."

## I-REC Certificate to GF Hakan Plastik

**G**F Hakan Plastik, which started to supply energy from renewable sources within the framework of the protocol it realized with ÇOSB (Çerkezköy Organized Industrial Zone) in the second quarter of 2021 with its energy efficiency and zero carbon emission approach in energy use, received I-REC certificate. Thus, it has documented that electricity is supplied from renewable energy sources in its facilities. Within the framework of the protocol, approximately 4,000 tons of carbon emissions were saved with the green

energy purchased from Aksa Elektrik A.Ş. for the 3rd quarter of 2021. This value is equivalent to 580 laps around the world with a personal vehicle or the contribution of 320,000 trees to nature in a year.

In 2022, GF Hakan Plastik will focus on Efficiency Enhancing Projects (VAP) as well as the continuity of the protocol and plans to complete the integration of the ISO 50001 Energy Management Standard into its quality system by the end of 2022.

GF Hakan Plastik also makes a signifi-



cant contribution to GF's 2025 sustainability goals with the I-REC certificate, which is considered one of the most useful and most preferred renewable energy certificates of today and the future in renewable energy supply.

## Mitsubishi Electric Türkiye aims to continue its rapid growth in 2022 in 2023

**M**itsubishi Electric Türkiye announced its activities in 2022 and plans for 2023. Stating that they achieved growth with their high-end products, product diversity and additional after-sales services despite the negative developments in the world and uncertain economic conditions in Türkiye, Mitsubishi Electric Türkiye President Şevket Saraçoğlu gave positive messages for 2023:

"We are the only company where air conditioning and factory automation systems are under the same roof. As Mitsubishi Electric, we offer a wide product and service network ranging from air conditioning solutions preferred in buildings of various scales and features from data centers to hotels, building management systems that control buildings in



different locations from a single point, electrical systems that reduce energy consumption, elevators and escalators. This gives us the opportunity to create a significant advantage, difference and synergy. In 2022, we launched our 'Building Systems' project, where we offer holistic solutions for the green build-

ings of the future. We are working on our 'Data Centers' project for 2023 and we will carry our synergy much further and present it to our stakeholders. We have been displaying a stable and rising graph in our operations in Türkiye for many years. As Mitsubishi Electric Türkiye, thanks to this success, we won the right to sell factory automation and air conditioning systems products and services to many countries, especially the Turkic Republics in Central Asia, which were affected by the embargoes imposed after the Russian-Ukrainian war, in 2022, and we started our work based in Istanbul. With the experience we have gained in neighboring countries for many years, we will realize very important opportunities and achievements in this geography extending to China in 2023."

## The Leading HVAC&R Exhibition ISK-SODEX at its New Venue

**I**nternational HVAC&R, Insulation, Pump, Valve, Fitting, Water Treatment, Fire Prevention, Pool and Solar Energy Systems Fair ISK-SODEX will be held at Istanbul Expo Center between 25-28 October 2023. The fair, where solutions for the needs of the new world will take place with the motto of Healthy Indoor Climate Solutions, will continue to shape the sector.

ISK-SODEX fair will now be held at the Istanbul Expo Center due to its location in the center of the city, offering alter-



native transportation options, and new halls built in accordance with the needs

of our exhibitors and visitors. We believe that you will have a more effective exhibition experience thanks to the opportunities that the new exhibition area will provide.

### Visiting Hours:

25 - 27 October (Wednesday - Friday) : 10:00 - 19:00

28 October (Saturday): 10:00 - 18:00  
Hannover Messe Sodeks Fuarçılık A.Ş. is a member of the Deutsche Messe Group.  
<https://www.sodex.com.tr/en>



## Levelstate in Turkish Market with Delta Valve

**D**elta Valve, distributor of global companies such as Honeywell, Flowserve, Farris, CDC and Gorth, announced that it has signed a distributorship agreement with UK-based Levelstate.

“Levelstate, which provides solutions for level monitoring needs with reliable and maintenance-free technologies, is a global company that also produces high quality two-color level indicators to complement its range of electronic units. Manufacturing boiler drum level monitoring and measurement equipment for the



energy, petrochemical and manufacturing industries, Levelstate’s systems are based on conductivity level probe technology. As a leading global manufacturer of level measurement equipment for steam generating plants, Levelstate’s products

are used extensively worldwide in industries as diverse as power, petrochemical, refinery, fertilizer, sugar, paper, cement, metallurgy and chemical. With the distributorship agreement signed with Levelstate, which operates worldwide with its sales and service network, Delta Vana has become the sole authorized name in Türkiye for the sales of hydrastep type electronic drum level gauges, electronic level switches, water columns (pressure vessels), conductivity level probes (electrodes) and remote monitoring units in Levelstate’s product range.”

## Zero Waste Certificate for ODE Insulation

**O**DE Insulation was awarded the Zero Waste Certificate by the Ministry of Environment and Urbanization. ODE was awarded this certificate with the Zero Waste Management System established at the ODE Production Campus in Eskişehir, which also won the “Investment of the Year” award at the “Insulation Industry Achievement Awards” in 2018.

Stating that they closely follow all activities in the green transformation process, especially the EU Climate Law, with the Energy Efficiency Committee they have established within ODE Insulation, Board Member Tarık Uslu said, “We have come a long way in a short time with the Zero Waste Management System we established within the scope of the Zero Waste Project carried out by the Ministry of Environment and Urbanization. As of today, we have achieved zero waste in glass and metal, saving 357.8 cubic meters of water. We saved 45.9 cubic meters of landfill space with organic waste and vegetable waste oil, which we also achieved zero waste. Thanks to zero waste motor oil, we saved 84,830 kWh of energy. By recycling 13 tons of paper in one year, we prevented 217.2 trees from being cut down. With the 6 tons of plastic we recycled, we helped use 14,649 liters less oil. With the paper and plastics we recycled, we also prevented the emission of 2,492 kg of greenhouse gases to our planet. In short, we are already very



close to the zero waste target that Europe wants to achieve by 2050.”

Tarık Uslu explained other environmentally friendly practices in the following words: “We are the only insulation company with an environmental product declaration (EPD) in all of our product groups. In addition, a total of 16 of our product series were entitled to receive EPD certificates. We continue our efforts to reduce our energy and water consumption. We continuously carry out improvement projects with A3 and Kaizen. With the solar panel (photovoltaic) that we are currently installing to cover the entire roof of our facility in Eskişehir, we will meet 60 percent of our electricity needs from the sun. This system with an installed capacity of 2,400 kWp, which we aim to commission in March 2022, is actually a start for us. We aim to continue our investments in this field until we meet the entire energy need in our production facilities from renewable energy sources.”

## Milon Air Conditioning Systems in Türkiye with Airsense



**M**ilon Air Conditioners produced in Midea factories, one of the world’s largest air conditioner manufacturers, started to be offered for sale in Türkiye.

Milon Air Conditioners imported by Noor Al-Sharjah Ltd. operating in Jordan, Dubai, Iran and Iraq were offered to the market through the sales network of Istanbul-based Airsense Ltd. Erdinç Küçükkaya, who has worked for many years in managerial positions in Temsa-Teknosa (Mitsubishi Heavy), Enkay (General Electric), Klimaplus (Mitsubishi Electric) and Modern Klima (Midea-Panasonic-Haier) companies, is the General Manager of Airsense Ltd, which sets out with a sales plan of 10 thousand sets in 2022, including 8 thousand sets of wall type split air conditioners and 2 thousand sets of light commercial air conditioners.

## Mitsubishi Electric Increases Production Capacity at Air Conditioning Base in Türkiye

**M**itsubishi Electric Corporation announced that it will invest 113 million USD for a new plant to be built at Mitsubishi Electric Türkiye Klima Sistemleri Üretim A.Ş., the company's air conditioning production base in Türkiye. The expansion of the production facility will increase Mitsubishi Electric Türkiye Klima Sistemleri Üretim A.Ş.'s annual production capacity by 100,000 units to 300,000 units for air-to-water heat pumps\* and by 310,000 units to 1 million 100,000 units for domestic air conditioners. Production will start in February 2024.

Mitsubishi Electric is expanding its global Heating, Ventilation and Air Conditioning (HVAC) operations as part of its 2025



growth strategy, with a particular focus on the European heating systems market. In line with Europe's carbon emission reduction policies, air-to-water heat pumps are rapidly replacing traditional boiler heaters that rely on fossil fuel, driving the rapid growth of the air-to-water heat pumps market in Türkiye and across Europe. At the same time, ongoing

climate change is spurring increasing demand for domestic air conditioners, which are seen by consumers as a basic necessity rather than a luxury item. Environmentally friendly CO<sub>2</sub> emission reduction measures to be implemented at the plant include improved thermal insulation, heat recovery from waste air and efficient use of renewable energy.

## Montair Provides Solution for Air Conditioning Needs of Trilliant Business Center Project in Uzbekistan

**M**ontair Precision Controlled Air Conditioning Systems, which are in the product range of Form Endüstri Ürünleri A.Ş., offer solutions to the sensitive air conditioning needs of the Trilliant business center project in Uzbekistan with its uninterrupted operation principle.

Located at the intersection of the most famous streets of Tashkent, the capital of Uzbekistan, Trilliant Business Center is a candidate to be the new stop of the Asian business world. Form Endüstri Ürünleri will meet the sensitive air conditioning needs of this special business center, which is Uzbekistan's first A+ Business Park project at international standards with its unique architecture consisting of 2 office towers, hotel tower, congress center, street shops, restaurants and cafes, with Montair.



Montair Precision Control Air Conditioners provide solutions and flexibility suitable for the project with different options such as air / water cooled, double cooling circuit, free cooling feature. Working 24 hours a day, 365 days a year, it creates the appropriate temperature, humidity and cleanliness conditions for the environment while guaranteeing maximum data protection against hydraulic leaks with its patented LOGICA cooling system. In this way, it saves up to 93 percent energy compared to traditional solutions.

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## Untes Products Preferred at Algeria Chlef Anticancer Center

**U**ntes products were used in the anticancer hospital built by the Algerian state in the city of Chlef. Üntes, which is the choice of hygienic environments with its sustainable air conditioning solutions in many parts of the world, took part in the project with 3 Eurovent certified FullPower series Chillers and 17 Eurovent certified plate heat recovery air handling units.





## TTMD is Back on REHVA Board of Directors

**T**TMD from Türkiye again took part in the board of directors of the European Federation of Heating, Ventilation and Air Conditioning Associations (REHVA), a professional organization representing more than 120,000 actively working HVAC experts from 27 European countries, including Türkiye.

The Turkish Society of Plumbing Engineers, which represents the Plumbing Engineers in Türkiye and the engineering work carried out in the field of plumbing, took its place among the members of the board of directors of the new term as a result of the general assembly held by REHVA in May.

The Elected General Assembly of the European Federation of Heating, Ventilation and Air Conditioning Associations (REHVA), which works closely with the European Commission that establishes Eu-



ropean Regulations and Standards, was held in Rotterdam on May 22, 2022. At the General Assembly, where the current period activities and future period plans were shared, Frank Hovorka, who was the President of REHVA in the previous term, handed over his duty to the new president Catalin Lungu (AIIR Romania) for a period of three years.

At the General Assembly, REHVA's board members for the 2022-2025 period were

also elected. TTMD Vice Chairman Dr. Kemal Gani Bayraktar was re-elected to the REHVA Board of Directors for the new term. Other names elected to the REHVA Board of Directors are Ivo Martinac (SWEDVAC), Johann Zirngibl (AICVF), Pedro Vicente-Quiles (ATECYR), Lada Hensen Centnerová (TVVL), Livio Mazzarella (AICARR). At the General Assembly, the Board of Directors of the previous term was thanked for their work.

## Tunç Korun Receives Eurovent Legend Honor Award

**T**unç Korun is the recipient of the Eurovent Legend Honorary Award, given by Eurovent to individuals who have made invaluable contributions and commitment to the European air conditioning industry. Eurovent announced that Form Group of Companies CEO Tunç Korun received the "Legend of Turkish Industry" honor award.

The following information was given in the announcement made by Eurovent: "Tunç Korun, who took his place in the Eurovent Legends Honor Roll, which includes people who have contributed significantly to the European HVACR industry, graduated from Gannon University in 1989 with a degree in Mechanical Engineering and started working as the second generation in the family company Form Group. He followed the career path of his father Bedii Korun, one of the pioneers of the Turkish HVAC industry. Tunç Korun has worked in the HVAC industry for 33 years in many different positions in the Form Group, including service, logistics, advertising, sales, management, and is currently the CEO of the group. He has been involved in the Turkish HVAC associ-



ation İSKİD since the beginning. After İSKİD joined Eurovent in 1997, he was assigned to represent the Turkish Air Conditioning Sector in the association meetings, which he has done selflessly until today".

Tunç Korun has been involved in the activities of İSKİD, the Association of Air Conditioning Refrigeration Air Condition-

ing Manufacturers, since its inception and has served in various positions, including being elected President between 2003 and 2004. His main area of interest is Heat Pump Systems, especially ground and waterside applications as well as Dehumidification and Rooftop Units. He has been involved in joint ventures with Munters Sweden and Mitsubishi Heavy Japan.

## QMET Started Production with Its Expertise in Heat Meters

**Q**MET Elektronik Sanayi ve Ticaret A.Ş. started the production of QMET Ultrameter+ Hybrid Heat Meters in its Tuzla campus. is preparing to introduce devices bearing the “Made in Türkiye” stamp to world markets. Under the management of QMET, built on twenty years of experience in the field of heat devices; Sibel Taşdemiroğlu, who is well known in the industry with her successful management background, and her son Ergun Veysel Taşdemiroğlu, who has undertaken many innovative R&D projects.

### QMET set out to offer high quality products to the market at affordable prices.

QLAB Thermal Devices Accredited Laboratory, established in 2018, has two test lines with very high qualifications. While heat meter testing, inspection and service services continue, QMET was established in 2021 on the “know how” developed by QLAB, which strengthened its experience in heat meters. The company started selling heat meters, whose quality was found to be appropriate after being tested in QLAB, under the QMET brand, and developed its technical infrastructure for production in this process. In order to offer high quality products to the market at more affordable prices, QMET continues its path with its manufacturer identity. Thus, the QMET brand will take its place in the world markets as



a strong and competitive heat meter with the “Made in Türkiye” stamp.

### The greatest assurance of QMET production quality is QLAB

In the production of QMET heat meters, all components are checked one by one. At this point, the QLAB infrastructure was expanded with new investments of significant scale. Because the company has a production strategy of quality that will be in demand for world markets. Devices are set up and verified in QLAB. After verification, it is reported and the device is brought to a salable point. In order to certify the suitability of the device, the entire testing and measurement infrastructure must work flawlessly. For this



reason, all QLAB test and measurement equipment is subjected to periodic calibration. QLAB, which has inspected and verified more than a hundred thousand meters over a six-year period, is the laboratory with the best infrastructure in Türkiye.

### Hybrid QMET Ultrameter+ can be used in both heating and cooling

The most important feature of QMET's Ultrameter+ heat meters, which received the certificate required to start production from the Slovak Institute SLM and completed MID B and MID D modules, is that they are hybrid. In other words, it can be used for both heating and cooling. 24 readings per day can be taken with the QMET heat meter model, developed in accordance with the RS485 standard for the UK market. Additionally, when powered by a power source, it is possible to receive instant data every 5-10 seconds. By adding this data to the control algorithm, perfect control can be achieved. With these meters, very low flows can be measured with high precision.

## Form and Mitsubishi Heavy Industries Celebrate the 5th Anniversary of Partnership

**F**orm MHI Air Conditioning Systems, born from the partnership of Form and Mitsubishi Heavy Industries, is leaving its 5th anniversary behind. Nobuaki Suzuki, General Manager of Mitsubishi Heavy Industries Thermal Systems, visited Form senior managers in his office to congratulate the outstanding achievements of the valuable partnership.

Form MHI Air Conditioning Systems has been offering high energy efficiency solutions with the same dedication, product quality and after-sales services for 5 years, with the support received from Form's industry experience and the technological power of the Japanese giant Mitsubishi Heavy Industries.

Nobuaki Suzuki, General Manager of Mitsubishi Heavy Industries Thermal Systems, came to Istanbul to offer his con-



gratulations to Form MHI Air Conditioning Systems, which has achieved outstanding success during the cooperation since 2011 and the partnership established as a result of this cooperation. Suzuki stated that their work will continue without slowing down in achieving their goals within the framework of the partnership in the coming period.

Zafer Sari, General Manager of Form MHI Air Conditioning Systems, said about the collaboration; “Within the framework of our

valuable partnership with Mitsubishi Heavy Industries, we prioritize energy saving and comfort of use, from hotels to residences; We are proud to have successfully completed the 5th year of the air conditioning solutions we provide in many different areas, from hospitals to shopping malls. “We are very excited about the projects we will realize in the future,” he said.

Form MHI Air Conditioning Systems; It plays an important role in the air conditioning of buildings with different needs with products such as split air conditioners, multi-split air conditioners, professional air conditioners, as well as VRF systems, heat pumps, air-to-water hot water producers. In this context, it has made a name for itself with its numerous reference successes such as Antteras Nev, Ephesia Holiday Beach Club, Garanti BBVA.



## ISK-SODEX will be organized with various events with the motto of Healthy Air Conditioning Solutions

ISK-SODEX ISTANBUL, the biggest meeting point of the air conditioning industry in the Eurasia Region, will take place at the Istanbul Expo Center between 25-28 October 2023 with the motto "Healthy Air Conditioning Solutions". While the Masters League and Future Masters competitions are held in the ISK-SODEX ARENA special area of the fair, which will host many events and competitions; The winners of the painting competition themed "Our Republic in its 100th Year" will be announced at the fair, and the results of the raffle, where many gifts will be given, will be announced in the presence of a notary after the fair.

ISK-SODEX, which brings together representatives of the air conditioning industry from all over the world under one roof every two years and makes a significant contribution to the growth momentum of the sector with the collaborations it prepares, also offers its participants an enjoyable fair experience with its events and competitions. The fair offers new generation products and systems together to industry professionals and participants who want to follow the latest developments in the air conditioning industry; In addition to the Masters League and Future Masters competitions to be held in the ISK-SODEX ARENA area, the '100th. It will also witness colorful moments with the 'Our Republic' themed painting competition exhibition and raffles where many gifts will be given.

### The 100th anniversary of the Republic will be crowned with a painting exhibition

ISK-SODEX organized the "100th An-



niversary" on the 100th anniversary of our Republic with the aim of prioritizing the national values of the society, strengthening national feelings and carrying this national loyalty to future generations. The winners of the painting competition themed "Our Republic" will be announced at the opening ceremony of the fair. While kindergarten, primary school and secondary school students participate in the competition in two different categories by reflecting their inner worlds on October 29 Republic Day, the works of the winning students will be exhibited in the 11th hall of the fair.

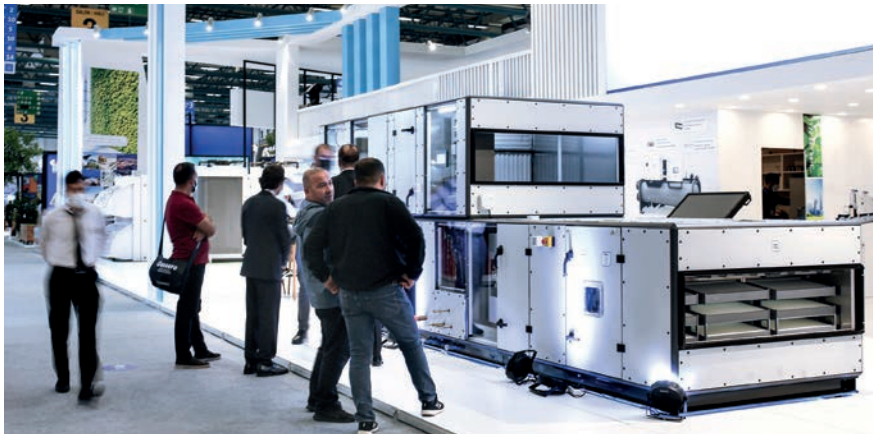
### Different gifts will be given through a raffle.

ISK-SODEX, which brings together industry representatives and prepares the ground for both the introduction of new technologies and the realization of col-

laborations, also offers a dynamic structure with its events, interviews, conferences and competitions. This year, a total of 12 products will be given away through a raffle whose applications will continue throughout the fair. 5 air conditioners, 3 combi boilers, 2 air cleaning devices, 1 air cooler and 1 heat recovery device will be given away as gifts in the raffle, which visitors can apply from stand A37 in Hall 10 until the fair ends. The winners will be determined by a draw to be held in the presence of a notary after the fair.

### Masters and future masters will showcase their skills

ISK-SODEX, which never loses its dynamism with the innovations it exhibits and the events it organizes, will provide colorful moments to its visitors with the competitions to be held in the ISK-SODEX ARENA area. On the first two days of the fair, which will start on October 25, 2023, masters working in the sector will compete on combi boiler and radiator installation, and on the third day, high school students who want to be the masters of the future will compete on air conditioner installation. While 10 masters will compete in 5 rounds in the Masters League, one of the competitions sponsored by Warmhaus, Formül Plastik, Rothenberger, Giacomini Unival and Yıldırım Klima brands, high school students will have the opportunity to showcase their skills in the competition to be held under the title of "Masters of the Future".



## Systemair Makes London Debut with New Data Center Cooling Solution Manufactured in Türkiye



**S**ystemair participated in Data World Center, Europe's largest exhibition bringing together data center professionals and technology leaders. In March 2022, at the London ExCel Exhibition Center, the company introduced Geniox Tera, the new sustainable and energy efficient data center cooling device, to visitors for the first time. Geniox Tera, whose all processes, especially R&D, are carried out by the Turkish team, is also supported by Systemair Group. Geniox Tera, which provides low power consumption thanks to its highly efficient heat recovery de-

vice, EC fans and evaporative cooling on the plate, keeps data safe at all times with its 100 percent capacity cooling battery option. Geniox Tera's sales organization and marketing as well as the life cycle assessment calculation are also carried out in Türkiye. The carbon footprint produced by the device throughout its lifetime is calculated by an expert team including environmental engineers working within the company. All processes of the study are carried out together by Systemair Türkiye and Systemair Group teams.

## 15th International Symposium on Installation Technology in Construction Held on September 20-23, 2022

**T**he fifteenth of the biennial "International Symposium on Installation Technology in Construction" was held virtually on September 20-23, 2022. This great gathering, which was held with the support of international and national organizations, with the contributions of domestic/foreign universities and company representatives, and where papers introducing technological developments were presented, was organized by TTMD. The International Symposium on Installations in Construction, the first of which was held in 1994 and the fifteenth of which was organized, is constantly developing and reaching wider audiences in each new period. The aim of this biennial symposium is to discuss scientific and technological developments in the fields of Heating,



Cooling, Ventilation, Air Conditioning, Air Conditioning and Plumbing, and to create a suitable platform for designers, practitioners, researchers and operators to benefit from their experiences. It is stated that the symposium will be a meeting center and a bridge between East and West in the fields of geography, trade, information and technology.

## TMB President Erdal EREN Elected to the Board of Governors, WWC's Top Management



**E**rdal EREN, the President of the World Water Council (WWC), of which TMB has been a member since 2004 and has been actively involved in its management, was elected as Governor.

With the strength of its members, TMB aims to continue its efforts to raise awareness on issues such as the protection of water resources, minimizing the effects of drought and water scarcity, and ensuring access to clean water at the international level.

The 9th General Assembly Meeting of the World Water Council (WWC), of which the Union has been a member since 2004 and has been actively involved in its management, was held in Paris on December 10-11, 2022. At the said meeting, where elections were also held for the Council's highest governing body, the Board of Governors, President Erdal EREN, representing the TMB, was elected as the Governor of the "Professional and Academic Organizations" category of the Council for the period 2023-2025.

TMB supports the WWC's efforts to make water a political priority all over the world in today's world where climate change caused by global warming is becoming more and more important. By re-joining the Council, our Association has taken its environmentally friendly policies to a new level at the international level.



# “Quality Assurance Meeting” of the “Improving the Quality of Vocational and Technical Education in the Installation and Air Conditioning Sector” project was held



**T**he “Quality Assurance Meeting” of the Project for Improving the Quality of Vocational and Technical Education in the Plumbing and Air Conditioning Sector, which is carried out within the scope of the IQVET III (ME-TEK III) program in partnership with TTMD, ISKAV and HARUSEM, was held in Şanlıurfa on January 27-28, 2023, hosted by Harran University. Harran University Faculty of Engineering Dean Prof. Dr. Hüsamettin Bulut, who made the opening speech of the meeting organized with the participation of project stakeholders, academicians and representatives of the sector, pointed out the importance of the project in order to bring the installation sector to a better point with university-industry cooperation and stated that qualified manpower to be trained in vocational and technical fields will make a great contribution to the problem solution. Speaking on behalf of TTMD, Dr. Kemal Gani Bayraktar, Vice Chairman of

the Board of Directors, touched upon the emergence process of the project in line with the needs in the region, and pointed out that thanks to the center of excellence to be created, an educational export covering both the region and across the border can be provided. Bayraktar also said that the funds to be obtained from the EU and UNDP in the future can also be used in this center. Speaking at the opening ceremony, ISKAV Chairman Sarven Çilingiroğlu said that the Air Conditioning Assembly and Assembly Member stakeholder associations stated that they would contribute to the project during the writing phase of the project, and thanked the companies sponsoring the project for their support not only in equipment support but also in training and strategy development. Following the opening speeches, TTMD Project Coordinator Pinar Yalman Akcengiz made a presentation on the Project for Improving the Quality of Vocational and Technical Education in the Installation and Air Conditioning Sector. Akcen-

giz stated that the project, which is realized in partnership with TTMD, ISKAV and HARUSEM, is called “eCOOL” and that the program is coordinated by the Ministry of Labor and Social Security and the Ministry of National Education. Akcengiz said that the GAP Administration and ISIB are among the project supporters and that the project center will be established in the GAP YENEV. Akcengiz said: “Our aim is to update and increase the capabilities of our teachers in vocational high schools in terms of training of trainers and to transfer innovations to the region in an integrated manner with technology. We will include our teachers in a training program for the next 6 months. We have a commitment to train 180 vocational high school teachers, 30 of them from Şanlıurfa.” Project Training Coordinator Berfin Seydan, who made a presentation about the training program of the project, said that firstly, teachers will be trained on an online platform, and in the second stage, the training schedules to be car-



ried out physically have been determined. Seydan said: “A total of 6 groups of teachers will participate in the trainings in groups of 30 people. The trainings are 2 weeks in total, 1 day of which will be a trip to Göbeklitepe, and the participants will exchange ideas about the content of the training with the e-learning platform in the first week, and in the second week, they will have the chance to make physical trials on the product themselves in the part called on-the-job training. In this way, they will have the chance to transfer new technologies to the qualified intermediate staff of the future they train.” Following the information sharing about the project, the project partners were introduced. Sarven Çilingiroğlu, Chairman of the Board of Directors on behalf of ISKAV, Dr. Kemal Gani Bayraktar, Vice Chairman of the Board of Directors on behalf of TTMD, and Assoc. Prof. Ragıp Terzi on behalf of HARÜSEM made presentations about their institutions. After the first part of the meeting, GAP Renewable Energy and Energy Efficiency Center GOPYENEV and the halls where project trainings will be given were visited.

In the second part of the Quality and Assurance Meeting, Berfin Seydan, Project Training Coordinator, gave information about the survey prepared for all trainers and stakeholders, followed by an exchange of ideas and opinions among all participants. Prof. Dr. Mehmet Azmi Aktacir made a short presentation about GOPYENEV, where the project trainings will be held, and explained the activi-

ties and pilot applications of the center. In the last part of the meeting, the opinions of the representatives of the project sponsor companies were given.

## About the Project

**Grant Scheme:** Improving the Quality of Vocational Education and Training through Establishment of Sectoral Centres of Excellence (IQVETIII)

**Project Title:** Improving the Quality of Vocational Education and Training in Installation Technology and Air Conditioning Sector

**Grant Beneficiary:** Turkish Society of HVAC and Sanitary Engineers (TTMD)  
**Project Stakeholders:** Heating Cooling Air Conditioning Research and Education Foundation (ISKAV), Harran University Continuing Education Center (HARÜSEM)

**Project Implementation Location:** Harran University GAP Renewable Energy and Energy Efficiency Center (GOPYENEV)

**Project MEB Title:** Principles of Innovative Refrigeration and Air Conditioning (e-COOL) Training of Trainers Course

## Specific objectives:

1. To establish a Sectoral Centre for Competence Development of VET Teachers and prepare innovative training programs in the field of refrigeration and air conditioning in order to invest in human capital by improving the quality of education and training.
2. To support innovative approaches to improve the quality of VET training and the capacity of VET teachers in the field of refrigeration and air conditioning.
3. Establish sustainable cooperation methods between business representatives, professional organizations, NGOs working in the field of education, vocational secondary education institutions in the field of installation and air conditioning.







### Expected outputs:

1. Establishment of a Sectoral Center for Competence Development of Vocational Education Teachers in the field of refrigeration and air conditioning.
2. Preparation of innovative installation and air conditioning training materials and in-service training programs.
3. Capacity building of HVAC vocational teachers through trainings.
4. Develop sustainable networks and partnership mechanisms that will bring together business and education related to VET teachers in the field of air conditioning.
5. Raising awareness of the business world on the importance of vocational education and the opportunities provided.

### Project Objectives:

The aim of the eCOOL Refrigeration and Air Conditioning Technologies Center, which will be established within Harran University within the scope of the project, is to establish a sectoral continuing education center for learning innovative technologies in the field of Installation Technology and Air Conditioning. This center will carry out both online and on-the-job trainings and will provide certification at national and international level. This center, which was established to meet the needs of the sector and the region, is to carry the professional knowledge and skill levels of teachers in the field of Installation Technologies and Air Conditioning to an advanced level using today's technologies in order to train more qualified per-

sonnel in vocational and technical high schools. In terms of sustainability, it is to improve the knowledge and skill levels of teachers in the fields of Plumbing Technologies and Air Conditioning with-in vocational and technical high schools, which are the main source of labor force and the first step in training qualified personnel, by using today's technologies. It will enable the personnel working in the sector to increase their professional competencies. 180 teachers from different provinces of Türkiye will receive training in groups of 30 people. Teachers will be able to learn and teach the current and developing technologies used in the sector and the tools to teach them.

### In this context;

- Establishing, strengthening and improving the relations of the project partners with the target groups.
- Ensure that project activities are sustainable
- Raising public awareness on the importance of vocational and technical education
- Ensuring information flow between project partners
- Involving sector stakeholders in the process and receiving their contributions in activities
- Building bridges between project partners and other stakeholders in the sector
- Ensuring that project activities reach a wider audience



- Providing regular information in order to avoid disruptions in the announcement of activities during the project
- To ensure that the project target group and final beneficiaries follow the current developments through international events and to create networking environments for institutional cooperation

### Target Groups:

Within the scope of the project, the target group is vocational technical education high school teachers. Besides the target group, the final beneficiaries are students, business world, sectoral NGOs (HVACR), Ministry of National Education and Ministry of Environment, Urbanization and Climate Change. The project activities and outputs are aimed to provide different gains for each target group and subcontractor.



# Regulation on Fluorinated Greenhouse Gases Updated



**T**he Regulation on Fluorinated Greenhouse Gases, No. 31881, which was updated and entered into force on 29 June 2022, defined the market supply bans of F-Gas.

## Market Prohibitions

- (1) Placing on the market of disposable containers containing fluorinated greenhouse gases or for the purpose of filling with this gas in the maintenance, service or filling of refrigeration, air conditioning, heat pump, fire protection and electrical switchgear equipment or for use as a solvent is prohibited.
- (2) The placing on the market of containers, products and/or equipment

containing fluorinated greenhouse gases as pure or mixed and not labeled in accordance with the labeling provisions is prohibited.

## SF6

- (1) Use of SF6 in magnesium die casting and recycling of magnesium die casting alloys
- (2) It is forbidden to inflate vehicle tires with SF6.

## List of Prohibited Products and Equipment

1. Direct evaporation systems with hydrofluorocarbon and perfluorocarbon as refrigerant
2. Fire protection devices containing perfluorocarbon or HFC-23

3. Household windows, shoes and vehicle tires containing fluorinated greenhouse gases
4. Single-component foams containing fluorinated greenhouse gases with a Global Warming Potential (GWP) of 150 and above, excluding mandatory use areas
5. Aerosol generators and signal whistles for public sale, marketed for entertainment and decorative purposes, containing hydrofluorocarbons with a Global Warming Potential (GWP) of 150 and above
6. Domestic refrigerators and domestic freezers with a Global Warming Potential (GWP) of 150 and above, containing hydrofluorocarbons, refrigerants or foam blowing agents



### Placement Bans 2025

Use of HFCs with a GWP value of 2500 and above in commercial refrigerators and freezers

Use of HFCs with a GWP of 2500 or higher in stationary cooling equipment, except in applications designed to cool products to temperatures below “-50°C”

Use of HFCs with a GWP value of 150 and above in portable room air-conditioning equipment

Use of less than 3 kg HFC with a GWP value of 750 and above in single split air conditioners

### Market Bans - 2029

Use of HFCs with a GWP value of 150 and above in commercial refrigerators and freezers

Multiple central cooling systems with a rated capacity of 40 kW and above, containing HFCs with a GWP rating of 150 or more or whose operation is based on these gases

### Placing Bans - Other

HFC-containing foams with a GWP of 150 or higher:

- 1) Placing on the market of extruded polystyrene (XPS) is prohibited as of 1/1/2025.

- 2) The placing on the market of other foams as of 1/1/2027 is prohibited.

As of 1/1/2025, placing on the market of technical aerosols containing HFCs with a GWP value of 150 or higher is prohibited.

### Placing Prohibitions - Exceptions

until 1/1/2033

- HFCs with a GWP value of 200 and higher used for the service and maintenance of existing refrigeration equipment, provided that they are correctly labeled,
- for maintenance or service of existing refrigeration equipment, provided that recycled fluorinated greenhouse gases with a GWP of 2500 and higher have been recovered from such equipment
- HFCs with a GWP value of 2500 and above, which are used for the maintenance or service of existing refrigeration equipment installed in mandatory usage areas, can be used.

### FARAVET

Annual Reports Database (FARAVET), an annual report submitted by busi-

nesses that import, export, or use, recover, recycle, treat or dispose of fluorinated greenhouse gases or other fluorinated substances in products or equipment or as bulk goods. It is an electronic database containing reports, quota allocation and import and export license (Hydrofluorocarbon control certificate) module. It has been prepared in accordance with the “Regulation on Fluorinated Greenhouse Gases” published in the Official Gazette dated 29 June 2022 and numbered 31881. Companies that import, export, place on the market, use in the production of equipment and products (foam production, etc.), recover, recycle, improve and dispose of fluorinated greenhouse gases are obliged to register with FARAVET and perform the necessary work and operations. With the implementation, applying for quota of fluorinated greenhouse gases within the scope of the fluorinated greenhouse gas reduction and control process, quota allocation and tracking, trading through the stock system, issuing a control document for imports within the allocated quota, issuing a control document for exports, annually reporting can be done.





# “Nearly Zero Energy Buildings” Era Begins in Türkiye

**T**he “Regulation Amending the Regulation on Energy Performance in Buildings” prepared by the Ministry of Environment, Urbanization and Climate Change was published in the Official Gazette dated February 19, 2022. With the amendment to the Regulation, the transition to the concept of “Nearly Zero Energy Buildings” (NZEB), which are more energy efficient than normal buildings and provide a certain part of the energy they use from renewable energy sources, will be made compulsory in stages. According to this amendment, buildings that qualify as NZEBs are required to have an energy performance class of B or better in the Ener-

gy Performance Certificate and at least 10% of the building’s primary energy needs must be met by renewable energy. With the provisional article, it was decided that 5% of the energy needs of the buildings in the projects between January 1, 2023 and January 1, 2025 will be provided from renewable energy sources. It has also been made mandatory for buildings with a total construction area of 2000 m2 or more to be constructed as NZEBs. It was decided to apply this total building construction area as 5000 m2 between January 1, 2023 and January 1, 2025 with a temporary article. Drawing attention to the NZEB concept during the Energy Saving Week on Jan-

uary 11-18, Izocam General Director Murat Savcı made the following statements on the subject: “The regulation brought along an increase in the thickness of insulation materials used in thermal insulation by roughly 3 cm on facades, 5 cm on roofs and 3 cm on floors. As of January 1, 2025, the total construction area limit on a parcel was reduced from 5 thousand m2 to 2 thousand m2, almost

The scope of the zero-energy building concept will be expanded and the renewable energy requirement will be brought to 10 percent. In the European Union, all public buildings are being constructed as Nearly Zero Energy Buildings (NZEB) since 2019 and



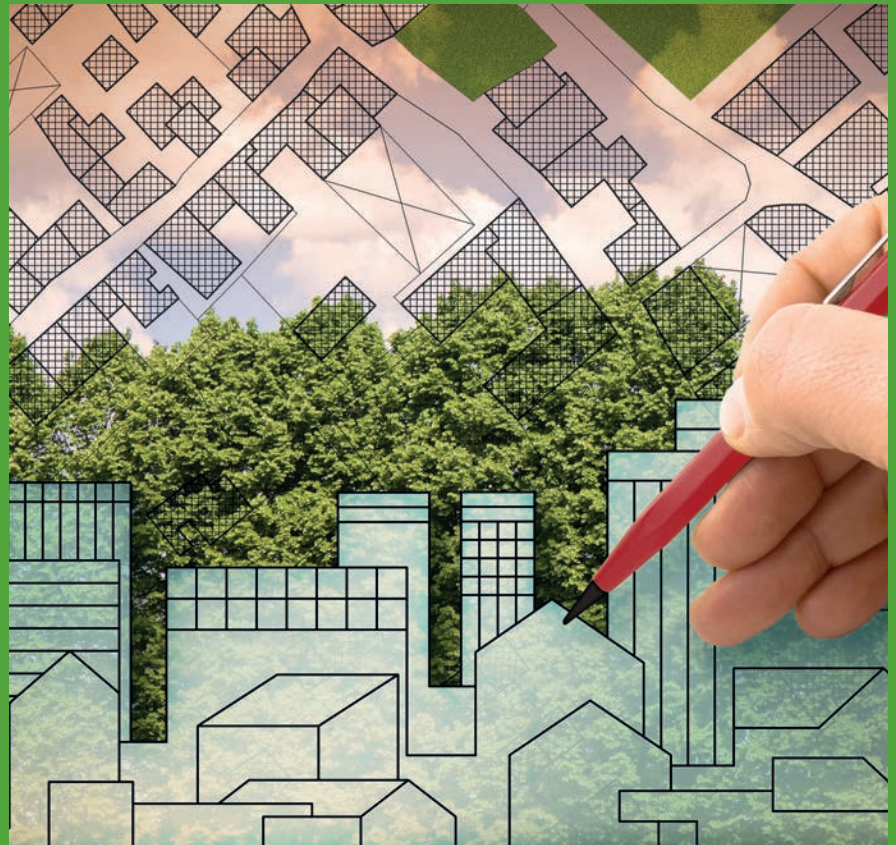


all new buildings from the beginning of 2020. These buildings are designed to be insulated so that their annual energy consumption per unit square meter for heating and cooling is 30-50 kWh. In our country, the new regulation aims to reduce energy consumption to 100-120 kWh in a limited number of buildings with a total construction area greater than 5 thousand square meters. Buildings insulated with the right material and appropriate thickness are the biggest step towards energy savings. In addition to contributing to the national and household economy, the contribution of insulation to the environment and the reduction of harmful gas emissions cannot be ignored.

For this reason, expanding the scope of Nearly Zero Energy Building (NZEB) applications will be one of the greatest legacies we will leave to our future.” ODE Insulation Board Member Ozan Turan pointed out that the thickness of the materials used in thermal insulation will also increase with the increase in the energy performance class from ‘C’ to ‘B’ and said the following: “With this regulation, not only the thickness but also the thermal conductivity coefficients of the materials used will improve. This will increase the use of quality and qualified products in the market.” Reminding that 80 percent of the total 22 million households in Türkiye do not have insulation or have very poor insulation, Turan pointed out that the energy consumption used for buildings will decrease with the increase in new building stocks. Turan continued as follows; “In many developed countries, buildings are designed to be insulated so that the annual energy consumption per unit square meter for heating and cooling is 30-50 kW. Buildings in our country, on the

other hand, still consume 120-150 kW of energy. Therefore, our energy waste is much higher compared to developed countries. In this context, we see the amendment made by the regulation as a positive step as it will reduce the annual energy consumption per unit square meter. However, with building insulation alone, we can save 15 billion dollars of energy annually at current prices. Therefore, we should start the energy efficiency mobilization as soon as possible.”

NZEB plays a critical role for countries to reach their decarbonization targets. The EU Commission’s proposal to revise the Energy Performance of Buildings Directive (December 2021) takes a step from the current NZEB to a zero-emission building (SEB), aligning the energy performance requirement for new buildings with the longer-term goal of climate neutrality and the “energy efficiency first principle”. The SEB requirement will apply to all new buildings from January 1, 2030 and to new public buildings from January 1, 2027.







# Türkiye Ranked Second in the World in Contracting with 42 Companies

**T**he 2022 results of the “World’s 250 Largest International Contractors List”, published annually by ENR (Engineering News Record), the globally referenced construction industry magazine, based on the revenues of contractors from their activities outside their countries in the previous year, have been announced. After a one-year break, Türkiye has risen to the second place in the list with 42 companies.

The Turkish Contractors Association (TCA) announced the results of the “World’s 250 Largest International Contractors List” for 2022 in Türkiye. Accordingly, ENR, in its bulletin containing

the list, noted that the size of the global construction market, which it stated has become increasingly complex following the Covid-19 pandemic and the Russia-Ukraine war, decreased from USD 420 billion to USD 398 billion in 2021.

## Turkish companies increase turnover as market shrinks

In the “List of the World’s 250 Largest International Contractors”, China was the leader with 79 companies, while the number of US companies was 41. While the global market contracted, the increase in the revenues of Turkish contractors also stood out. It was noteworthy that in 2021, when vaccination in

the Covid-19 pandemic became widespread and rising oil prices came to the fore, Türkiye increased its performance and took back the second place in the list, which it left to the USA last year.

## 2 Turkish companies among the top 50

With revenues of USD 20.4 billion, Turkish companies increased their share in the total revenues of the companies on the list to 5.1% from 4.4% in the previous year. Thus, Türkiye moved up one place to 7th in the 2022 list based on international revenues. With this figure, Türkiye is ahead of the UK, Austria and Japan. According to the internation-





creasing problems in the international market, our contractors succeeded despite the difficulties and, as promised, brought our country's name back to the second place in the league of global giants. We are proud that 42 of our companies have been included in the ENR list for 2022. 'Turkish contracting' has become a brand in the world. Our contractors stand out in the international construction industry with their ability to perform work at international standards, on time and at affordable costs, their work experience in difficult and risky ge-

ographies, and their ability to develop co-operation. It is also important to achieve this success at a time when problems persist in our traditional markets and our need for financing increases. The increase in our share of the global construction market is also pleasing."

### Here are the Projects that Ranked Türkiye Second in the World

Some of the international projects that led the first 10 Turkish companies to

al project revenues of contracting companies in 2021, the number of Turkish contractors among the top 100 companies in the list of 2022 was 8. Two Turkish companies found a place among the top 50 companies.

Regionally, Turkish companies' activities in 2021 were mainly concentrated in Europe including Russia (USD 8.8 billion), the Middle East (USD 5.6 billion), Africa (USD 3 billion) and Asia (USD 2.5 billion).

### "Turkish contractors succeeded in the global market"

TMB President M. Erdal Eren made the following assessments "Despite the in-

#### TOP 10 TURKISH COMPANIES ON THE ENR LIST

	Company	Place on the 2022 list	Place on the 2021 list
1	RÖNESANS	24	28
2	LİMAK	50	56
3	YAPI MERKEZİ	58	68
4	ENKA	59	70
5	ANT YAPI	62	57
6	TEKFEN	76	80
7	ONUR YAPI	82	92
8	ESTA	93	115
9	ALARKO	108	165
10	TAV	110	101





be included in the list of the “World’s 250 Largest International Contractors”, which is referenced worldwide, to this success are listed as follows:

**1. RÖNESANS:** Maintaining its leading position in the Turkish list this year and ranked 24th in the world list, RÖNESANS’ most prominent projects to date include the Gotthard Base Tunnel in the Swiss Alps, the world’s “longest and deepest” railway tunnel. Since 2015, the company has maintained its position among the top 10 largest contracting companies in Europe.

**2. LİMAK:** Limak ranked second in the Türkiye list, as it was last year. The Kuwait International Airport New Terminal Building undertaken by Limak, which ranks 50th in the world ranking this year, draws attention. It is stated that the project has the largest contract value won by Turkish contracting companies. With the commissioning of the new terminal, the airport capacity is planned to reach 25 million passengers per year.

**3. YAPI MERKEZİ:** Ranked 58th in the list, YAPI Merkezi’s Dar es Salaam -

Isaka Railway Line project in Tanzania stands out. The company is building the first four stages of the fastest railroad in East Africa that will connect Dar es Salaam to Mwanza. The first two phases of the 1,224 km line are about to be completed. The project will open East Africa to the Indian Ocean as part of a central corridor linking Uganda, Rwan-

da, the Democratic Republic of Congo and Tanzania.

**4. ENKA:** ENKA, ranked 59th in ENR’s world list, signed a consortium agreement with General Electric to realize the Samawa Combined Cycle Power Plant project in Iraq. The plant, which was completed and commissioned in





the first phase as a simple cycle power plant including 132 kV open switchyard (AIS) and 400 kV gas insulated switchyard (GIS) despite the pandemic conditions, is said to be a significant solution to the power shortage problem in the region. With the financing of the Iraqi government, the plant will be converted into a combined cycle power plant.

**5. ANT YAPI:** Ranked 62nd on the ENR list, ANT YAPI's UNA Residences in Miami, USA, features an iconic ship-shaped design and views of Biscayne Bay. The project consists of 135 luxury condominiums with floor-to-ceiling glass, expansive terraces and a range of amenities including three pools and private boat slips, and is the only building in South Miami with three levels of underground parking next to the ocean.

**6. TEKFEN:** Ranked 76th on the ENR list, TEKFEN's latest project is the Kharampur Gas Pipeline Project in Western Siberia. The project involves the construction of a 48-inch, 90 km long pipeline, 7 block valve stations and a high voltage line to feed Gazprom pipelines



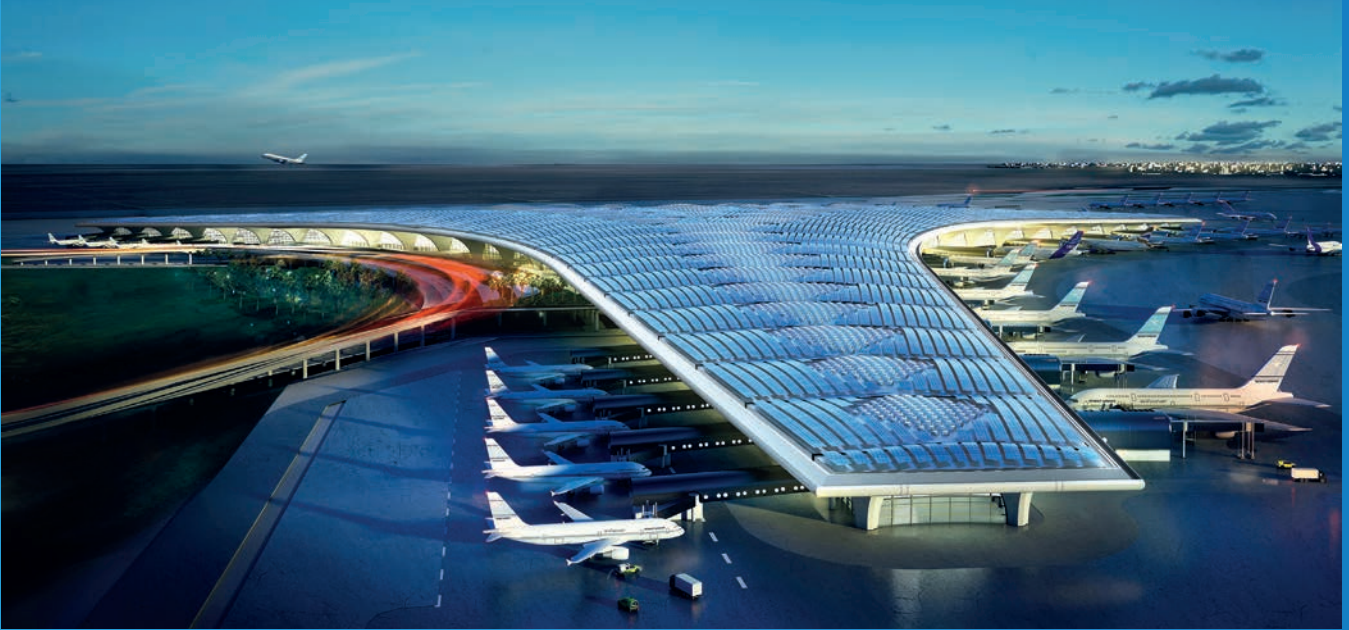
from the Kharampur Gas Field in Gubkinsky, Yamal province. The unusual aspects of the project are the temperatures that drop to -50 degrees Celsius and the ground, which is mostly swampy when the weather warms up a bit.

**7. ONUR YAPI:** The most prominent project of the company, which has risen to 82nd place in the list, is the Zaporizhia Bridge, a 20-year dream of Ukraine, which has attracted the attention of the whole world... The project has the title of the second largest inclined suspension steel bridge in Europe with a tower height of 150 meters. The first stage of the bridge, which is planned to cross over the Dnieper River and whose construction was started but not completed by other contractors before, was delivered by Onur Yapi in a short time. The 2.4 km stage 1 was completed in December 2020 and the 3.8 km stage 2 was completed and opened to traffic in January 2022. Due to the war, the project has not yet been fully completed.

**8. ESTA:** One of the prominent projects of ESTA, which has rapidly risen to 93rd







place on the list, is the Amur Gas Chemical Complex (Amur GCC) Project. The complex, which will produce high quality polyethylene and polypropylene, which are in great demand in the global market, will have a capacity of 2.7 million mtpa per year. It is assumed that the plant, of which the company has undertaken a significant part of the construction, will be one of the most productive in Russia and one of the world's largest enterprises for the production of base polymers.

**9. ALARKO:** Ranking as high as 108th in the ENR list, Alarko's first subway project abroad is the Bucharest Henri Coanda (Metro) Project. The M6 Metro Lot 1.1 Project in the Romanian capital consists of a 6.3 km double tube TBM metro tunnel, 6 stations and 1 connection station. The Bucharest Southern Ring Road Lot-1 and Lot-2 projects are 2x2 lanes and approximately 34 km long... The project will significantly ease the burden on the Bucharest road network.

**10. TAV:** Ranked 110th in the list, TAV started its operations at Almaty Airport in Kazakhstan, one of the most important centers of the Silk Road, with a fast start in 2022. With the expansion works to be carried out at the airport of Almaty city, the new international terminal building is targeted to reach 55 thousand square meters and an annual passenger capacity of 6 million. The company ranks among the top in the world in the airport construction sector.





### Turkish contractors undertook 17.8 billion dollars worth of work abroad

Trade Minister Mehmet Muş stated that the overseas contracting sector closed the year 2022 with a total project value of 17.8 billion dollars. Muş said, “Our target should be Western Europe, the Americas and Asia-Pacific countries. We should look for ways to expand our markets towards these regions together.”

In his speech at the “Evaluation of Overseas Contracting and Technical Consultancy Services for 2022” program held at the Turkish Contractors Association, Muş pointed out that service exports are as important as goods exports. Stating that service exports exceeded the figure of 61.4 billion dollars in 2021 as 76.4 billion dollars as of 10 months of 2022, Muş said, “As the Ministry, we will continue to work non-stop with our private sector in order to achieve new successes in our exports of goods and services in the 100th year of our Republic.”

Stating that contracting and technical consultancy companies are among the important actors of this rise in foreign trade, Muş said that the sector’s rise to the top ranks in the world construction market is among the critical priorities.

### “Projects were realized in 133 countries, Russia maintained its first place”

Pointing out that the contracting sector has achieved a very important position by leaving many competitors behind in foreign markets, Muş continued his words as follows: “Our overseas contracting sector closed the year 2022 with a significant total project value of 17.8 billion dollars and the sector proved its strength and resilience once again. Thus, the total number of projects undertaken increased to 11 thousand 605 and the total value of the projects increased



to 471.7 billion dollars. The number of countries in the world where we have realized projects has increased to 133 as of 2022. Our goal is to ensure that there is no country in the world where Turkish contractors do not go and work. When we look regionally, the Commonwealth of Independent States (CIS) ranks first again with 37.6 percent in terms of project size in 2022. In second place is the European Region, whose share doubled to 24.5 percent. The Middle East ranks third this year with 18.5 percent. With a share of 12.7 percent, we have also consolidated our position in Sub-Saharan Africa. When we look at the top 10 countries, Russia maintains its place in the first place, while the previous year’s record was broken with a size of around 11 billion dollars, this year, as a result of the war, a project size of 2 billion dollars was reached.”

Pointing to the importance of market diversification in the sector, Muş said, “The efforts of our companies to diversify our contracting markets are reflected in our figures. In 2022, Romania, Poland, Hungary and Tanzania are among the top 10 countries. From now on, our target should be Western Europe, the American continent and Asia-Pacific countries. We should look for ways to expand our markets towards these regions together.”

Stating that Turkish contracting companies have maintained and strengthened their position in the world, Muş said, “Our country has been represented by 40-45 companies in ENR Magazine’s list of the 250 largest contracting companies of the year for many years and undertakes 5 percent of the global project size.”

### 236 million dollars worth of projects were realized in the overseas technical consultancy sector

Minister Muş also provided information on the overseas technical consultancy sector and said that this sector has also increased its position in the world. Stating that a very important momentum was gained in this field in 2022, Muş said, “Last year, the annual project value increased by 55 percent compared to 2021 and reached 236 million dollars, which is a serious figure compared to the global size of the sector. From the past to the present, the total technical consultancy project value has increased to approximately 3 billion dollars and the number of projects has increased to 2,583. Regionally, in addition to our traditional markets such as the CIS and the Middle East, we also have a

strong positioning in Asian countries other than the CIS. In this context, Pakistan and India have become our traditional markets for the technical consultancy sector and are among the top 10 countries where we have undertaken the highest number of projects. We are also pleased to see new markets such as Nepal and Romania in the top 10 this year. In the same list this year, we see Saudi Arabia, with which we have positive relations.”

### **“We positively evaluate delegation requests”**

Pointing to the steps they have taken to solve the sector’s problems, Muş said: “In this context, we support initiatives before other relevant ministries and institutions not only for the sector’s problems abroad, but also for the problems it faces domestically in a way that will affect its performance abroad. In our vision for the future, technology and added value should always be at the forefront, and we are accelerating our expansion into new and more distant markets. We carefully monitor the efforts of our companies in the Asia-Pacific region and try to provide the necessary diplomatic support. Our delegations are one of the most important tools we use as the Ministry in reaching these new markets and strengthening the existing ones. In this context, we always evaluate your delegation requests positively. In addition, partnerships with companies from different countries and cooperation in third countries is an issue that we, as the Ministry, attach importance to.”

### **Turkish contractors turn their route to Iraq and Saudi Arabia**

Erdal Eren, President of the Turkish Contractors Association (TMB), stated that the sector entered the year 2022 in a positive mood with the effect of the Covid-19 outbreak being under control to a certain extent and the increase in oil prices, however, the Russian-Ukrain-

ian War, which started early last year, changed the balances in terms of its activities and brought great uncertainties for the sector. Erdal Eren noted the following: “Turkish contracting has become a brand in the world, Turkish contracting companies continue their activities predominantly in Eurasia and the Middle East, stand out against their competitors in Africa and undertake an increasing number of projects with high added value in Europe.”

Emphasizing that the Iraqi market maintains its importance for the sector in addition to the developments in the Russian and Ukrainian markets, Eren said that with the political stability that emerged after the formation of the government in Iraq, Turkish contractors will have more business opportunities. Eren said, “We will organize a contracting delegation visit to Iraq in the near future. Sectoral contacts with Saudi Arabia, which stands out in the region with approximately 3.3 trillion dollars worth of projects that are expected to be realized in the next 10 years, gained momentum last year. It is of utmost importance for Turkish contracting companies to have a share in these projects in order for the sector to be less affected by the current difficulties in the global market. In this framework, we have also started working on a contracting delegation visit to Saudi Arabia with the instruction of Mr. Minister.”

### **“Overseas contracting services are a team game”**

Eren pointed out that the TMB will be represented at the level of Vice President in the new administration of the Federation of Contractors of Islamic Countries (FOCIC) and said, “This will open up new opportunities for our contractors in terms of developing cooperation with the member countries of the Organization of Islamic Cooperation, such as Saudi Arabia and the United Arab Emirates, and making more effective use of Islamic Development Bank funds.”

Stating that they expect to undertake

new projects abroad with their experience in public-private cooperation and that they aim to take part as investors in the countries they visit, Eren made the following assessment: “We are developing relations with multilateral and regional development banks and export credit agencies of other countries under the leadership of our Ministry in order to provide the financing we will need in this framework. Overseas contracting services are a team game. With the support of our state, it is obvious that the team will be united and will achieve success. In this extraordinary period we are going through, I sincerely believe that we will overcome the problems and achieve new successes by joining forces.”

### **Congress will be held in Istanbul on June 1-2, 2023**

İrfan Aker, President of the Association of Turkish Consulting Engineers and Architects (TürkMMMB), stated that as a sector, they undertook 3 billion dollars worth of work in 2 thousand 583 projects in 134 countries as of the end of 2022, and said, “When the countries and figures are compared with the end of 2021, we started technical consultancy services in 5 new countries in 2022. Again in 2022, we undertook 130 new projects and increased the total project value undertaken by 54 percent from 153 million dollars in 2021 to 236 million dollars in 2022.” Aker also informed that the general assembly and congress of the European Federation of Consultancy Engineering Associations will be held in Istanbul on June 1-2, 2023.

On the other hand, according to the data of the Ministry of Trade, the value of the projects undertaken by Turkish contractors abroad last year was 17 billion 796 million 934 thousand dollars. In this context, the country where the most work was undertaken was Russia with 2 billion 15 million dollars, followed by Azerbaijan with 1 billion 764 million dollars and Iraq with 1 billion 580 million dollars.





## AWARD TO 4 MUNICIPALITIES at THE “OSCARS OF SUSTAINABILITY”

The winners of the Sustainable Business Awards, organized by the Sustainability Academy for the 9th time this year to highlight business models/projects that create significant impacts on social, economic and environmental issues and protect our common future, were announced at a glorious ceremony.



In its 9th year, the motto of the night was “Transformation is Possible Together” at the Sustainable Business Awards, where leading projects that shape change were awarded. The platform, which rewards successful models and projects that create significant impacts on social, economic and environmental issues, has awarded more than 145 projects in the past 9 years. In addition to large-scale companies, SMEs, start-ups, municipalities and non-governmental organizations, which were included this year, could also participate in the awards. The finalists were determined by a jury of 51 people in 15 categories as a result of a challenging evaluation process and 35 projects were deemed worthy of the award. Among these projects, there were 4 municipal projects.

### WASTE MANAGEMENT

#### Fatih Municipality - Zero Waste Training Center and Recycling Workshop

Zero Waste Training Center and Recycling Workshop, one of the exemplary recycling activities of Fatih Municipality, was deemed worthy of an award in the “Waste Management” category.

Fatih Municipality’s Business Manager Fatih Erol received the award together with his teammates at the “Sustainable Business Awards” ceremony held at Fairmont Quasar Istanbul with the slo-

gan “Transformation is Possible Together”. Speaking after receiving the award, Fatih Erol said, “It is a source of pride that one of our projects to become a pioneering municipality in zero waste with the support of our Mayor Mr. Mehmet Ergün Turan has been recognized as a sustainable model. I would like to thank our teammates who contributed. As Fatih Municipality, we will continue to work with all our strength to take an environment-oriented municipalism approach further.”

In the 1st Class Waste Collection Center, where Fatih residents can not only bring waste but also participate in workshop activities; 14 groups of waste are accepted. At the Fatih Municipality 1st Class Waste Collection Center, which continues its activities with the aim of increasing ‘Zero Waste’ awareness, children have the opportunity to learn how recycling products are separated and what kind of processes they undergo, and they learn the importance of the contribution of recycling to the environment.

In the simulation room, the zero waste adventure is explained in cartoons and documentaries with visuals selected according to the age range of our guests. After the presentation, the participants are informed in detail about the current zero waste studies and collection points in our district with questions and curiosities.

In the compost section of the center,

our compost machine with a daily volume of 200 liters can produce compost in 24 hours. With the machine, where the enzyme used is completely domestic production, the compost adventure is explained to the guests who come for awareness and education purposes in the most efficient and memorable way.

### COLLABORATION

#### Tepebaşı Municipality - GESIKOOP

Tepebaşı Municipality made Eskişehir proud at the 9th Sustainable Business Awards organized by the Sustainability Academy this year, where Türkiye’s leading companies and municipalities participated. GESIKOOP (Tepebaşı Recyclable Waste Collectors Social Enterprise Cooperative) project, which was established with the incentives of Tepebaşı Municipality and made a difference with its social enterprise cooperative, was deemed worthy of the “Business Cooperation” award.

At the award ceremony held in Istanbul, Deputy Mayor Suat Yalnızoğlu, Environmental Protection and Control Manager Bahri Ağaoğlu and Environmental Protection and Control Directorate staff received their awards from Prof. Dr. Sermin Onaygil.

Tepebaşı Municipality established GESIKOOP (Tepebaşı Recyclable Waste Collectors Social Enterprise Cooperative) on January 15, 2020, pioneering another first in Türkiye in order to give status to street collectors working





under difficult conditions and unregistered, and to record the waste collected. The cooperative has a total of 32 members, including 13 foreigners, and 3 women. In the two years since its establishment, 5,580 tons of waste has been collected.

### SOCIAL IMPACT

#### Nilüfer Municipality - New Generation Production Movement in Social Municipalism: Atölye Nilüfer

The Atölye Nilüfer-Coding and Skill Workshops project, which was implemented by Nilüfer Municipality in 2020, was deemed worthy of the “Sustaina-

ble Business Awards” organized by the Sustainability Academy. Deputy Mayor of Nilüfer Municipality Yalçın Işıkyıldız received the award in the “Social Impact” category.

The 9th “Sustainable Business Awards” organized by the Sustainability Academy were presented at a ceremony held at Fairmont Quasar in Istanbul. Nilüfer Municipality was deemed worthy of the award in the “Social Impact” category with “Atölye Nilüfer-Coding and Skill Workshops”.

The “Sustainable Business Awards”, which aims to highlight the projects of organizations that have created economic, environmental and social impact and share them with large masses, were given



in 15 categories this year. Nilüfer Municipality took part in the organization with Atölye Nilüfer, where trainings and workshops on ‘3D Printer, Coding’ and ‘Wood Modeling’ were held in order to prepare children and young people, especially those with low socio-economic status, for the future and to spread the “Do it yourself” culture, which is spreading rapidly in the world with the developing technology.

### DIVERSITY and INCLUSION

#### Malatya Metropolitan Municipality - Disabled Vehicles Repair and Maintenance Station

Malatya Metropolitan Municipality was awarded in the Diversity and Inclusion category at the 9th Sustainable Business Awards for its “Repair and Maintenance Station for Disabled Vehicles” project.

The project was implemented by Malatya Metropolitan Municipality Grants Branch Directorate in partnership with Fırat Development Agency within the scope of the Ministry of Industry and Technology’s 2020 Social Development Support Program (SOGEP). In the disabled vehicle repair and maintenance workshop established by Malatya Metropolitan Municipality Health and Social Services Department Disability Coordination Center for the repair of battery-powered vehicles of disabled citizens, repair, maintenance and repair of vehicles used by disabled citizens are carried out.





# TÜRKİYE, RENEWABLE ENERGY MARKET HIGHLY ACTIVE

According to figures released by the Ministry of Energy and Natural Resources, 34.6% of Türkiye's electricity generation in 2022 came from coal, 22.2% from natural gas, 20.6% from hydropower, 10.8% from wind, 4.7% from solar, 3.3% from geothermal and 3.7% from other sources.

**B**y the end of January 2023, Türkiye's installed electricity capacity reached 104,038 MW. As of end-January 2023, the breakdown of our installed capacity by sources was as follows: 30.3% hydraulic energy, 24.4% natural gas, 21% coal, 11% wind, 9.2% solar, 1.6% geothermal and 2.5% other sources.

In addition, the number of power plants in Türkiye increased to 11,623 (including unlicensed power plants) by the end of January 2023. Of the existing power plants, 751 are hydroelectric, 67 are coal, 360 are wind, 63 are geothermal,

345 are natural gas, 9,546 are solar and 491 are other sources. Dr. Fatih Birol: "Türkiye Can Grow Nearly 65 Percent in Renewable Energy in 5 Years"

Dr. Fatih Birol, President of the International Energy Agency (IEA) and Honorary President of Sabancı University Istanbul International Energy and Climate Cent-





er (IICEC), emphasizes that Türkiye is a very active country, especially in renewable energies. Birol's prediction for Türkiye's renewable energy performance in the near future is as follows: "We think that Türkiye will grow close to 65 percent in renewable energy in the next 5 years. This means becoming one of the top 4 in Europe and one of the top 10 in the world." He noted that Türkiye has a lot of potential in this field. Drawing attention to the rise of renewable energies and energy efficiency on a global scale, Dr. Birol said: "In the next five years, the renewable energy capacity in the world will increase by 2400 Gigawatts. This is a rate equivalent to the increase the world has made in the last 20 years. There is a tremendous development in renewable energy in the world today. In the next five years, the renewable energy capacity in the world will increase by 2400 Gigawatts. This is a rate equivalent to the increase made by the world in the last 20 years. We see a rapid increase especially in solar and wind energy all over the world. There is also a very significant increase in energy efficiency. This year, the increase in energy efficiency has doubled the increase in average years. The reason for this is again both the incentives provided by governments and the steps they have taken in this field."

IICEC's "Türkiye Renewable Energy Outlook", chaired honorary by Fatih Birol, offers 7 concrete recommendations to all stakeholders, including a focus on human resource development, to capitalize on Türkiye's high growth potential in renewable energy and related technologies, offering multi-dimensional opportunities for energy security, clean energy transformation, competitive and technology-driven industrial development:

1. Achieve a total renewable energy installed capacity of more than 250 GW in 2050, a renewable electricity generation share of more than 85 percent, and a 50 percent share of total renewable energy in final energy demand, and determine roadmaps for this on the basis of sources, technologies and sectors.
2. Develop sustainable investment and financing models for an efficient,



deep, cost-reflective and predictable electricity market, thus ensuring strong growth in the project stock.

3. Strengthen the capacity and resilience of grids that form the backbone of the electricity system through technology-driven investments supported by long-term dynamic planning.
4. Continue the development of wind and solar technologies in a way that supports the sustainability of supply chains and Türkiye's position as a regional clean energy technology production base; realize developments in energy storage and green hydrogen production technologies.

5. Support energy security and clean energy transition by ensuring at least a three-fold increase in direct renewable energy contribution, in addition to clean electrification in buildings, industry, transportation and other energy consuming sectors.
6. Transform growth in renewable energy ecosystems into high value-added opportunities by leveraging energy efficiency potential and digitalization solutions across the value chain.
7. Develop qualified human resources and entrepreneurship ecosystems to support strong and sustainable growth and competitiveness in renewable energy.



# A System Serving Over 2 Million Passengers Every Day: Metro Istanbul



Since its establishment in 1988, Metro Istanbul has been working to provide a good service to the city's constantly and immeasurably growing population. Metro Istanbul is a successful system that transports over 2 million people from one place to another every day.

**M**etro Istanbul, a subsidiary company of Istanbul Metropolitan Municipality, was established in 1988 by Istanbul Metropolitan Municipality to operate urban rail systems. The company, which operates the existing metro, tram, funicular and cable car lines in Istanbul, currently serves over 2 million passengers every day with 18 lines. With its service concept, it is deemed worthy of many awards both locally and globally. Metro Istanbul, which carries passengers

with 18 lines of 207.72 km in total system, explains its reason for existence as follows: "Metro Istanbul, whose service network is constantly growing with the acceleration of rail system investments and the commissioning of new lines, continuously improves its service quality with a passenger-oriented approach. Providing world-class, fast and effective transportation services, constantly improving transportation technologies, continuously investing in R&D and human resources, Metro Istanbul continues to work with

the aim of carrying Istanbul to the future. In addition to rail system operation, Metro Istanbul provides maintenance and repair services for rail system vehicles, stations, fixed facilities and line infrastructures, as well as electrical and electronic systems under its management. In addition to operation and maintenance and repair activities, our company also provides engineering and consultancy services for Istanbul's future metro projects as well as public transportation projects in Türkiye and abroad."



## 2022 Performance

“April 1st, 2022” was recorded as a critical date for Metro Istanbul, which celebrates its 34th anniversary in 2022. Because the number of passengers served on that Friday was measured as 2 million 520 thousand. Making a statement about the historical success, Metro Istanbul General Manager Özgür Soy said the following: “In 2019, there were a total of 7.5 million trips using Istanbulkart in all public transportation vehicles in Istanbul. This number sometimes dropped to one in 9 during the pandemic period. Metro Istanbul had approximately 1 million 900 thousand passengers per day in 2019 before the pandemic, and there were days when it reached 2 million 400 thousand passengers per day towards the end of 2019. Then, due to the pandemic, our passenger numbers dropped a lot, especially as of April 2020. We dropped to 200 thousand passengers, but we continued to provide uninterrupted service. In recent months, we see an upward trend in our passenger numbers again. When you travel by metro, you are not affected by traffic and you get to your destination in the same amount of time regardless of the time of day. In addition, the metro is the most environmentally friendly mode of public transportation. You make a great contribution to the environment every time you use the subway instead of a rubber-wheeled vehicle. Since it runs on electricity, not fossil fuels, there are no greenhouse gas emissions. Therefore, the more people use the metro, the more our city benefits.”

On October 2, 2022; Fevzi Çakmak-Hospital, Yayalar-Şeyhli, Kurtköy and Saba Gökçen Airport stations were put into service and the M4 Kadıköy-Sabiha Gökçen Airport Metro Line reached 23 stations.

In the last days of the same month (28.10.2022), the F4 Boğaziçi University/Hisarüstü-Aşıyan Funicular Line was put into service. Özgür Soy's remarks on this new line were recorded as follows: “We are happy to see the expansion of rail system networks in Istanbul. With the opening of our F4 line, we

have reached a total of 17 lines and 195 stations. Thus, Istanbulites will be able to take the metro from Başakşehir and reach the Bosphorus by using the rail systems completely without entering the road traffic. The Boğaziçi University/Hisarüstü-Aşıyan Funicular Line, which IBB completed in a period of 2 years, cost approximately 250 million liras. The line, which will serve approximately 3 thousand passengers per hour, consists of 2 stops. The total travel time is 2.5 minutes and the length of the line is 0.8 kilometers. The line, which will be open to internet and telephone access, will be integrated with (M6) Levent-Boğaziçi University/Hisarüstü Metro Line at Boğaziçi University/Hisarüstü Station and City Lines (Anadolu Hisarı, Küçüksu and Üsküdar Piers) at Aşıyan Station. In this way, it will create an alternative in terms of continental crossings”.

## Other Notes from 2022

- Metro Istanbul became the world's first and only 6-star rail system operator by passing 600 points as a result of the competency assessment conducted by the Turkish Quality Association (KalDer) in line with the European Foundation for Quality Management (EFQM) Excellence Model.
- Metro Istanbul's 15th campus was opened in Ümraniye. Türkiye's largest urban rail system center, the campus was named after Behiç Erkin, the founder and first general manager of TCDD.

## Fast Track to 2023

Metro Istanbul made a rapid entry into 2023. First, Fulya and Yıldız Stations of M7 Yıldız-Mahmutbey Metro Line were opened on January 02. General Manager Özgür Soy gave the details of this project as follows: “The M7 line, which is 17.2 kilometers long and has 15 stations, will reach 19.2 kilometers in length and 17 stations with Fulya and Yıldız stations. Our line will pass through 7 districts in total and serve a population of more than 3 million. Our Fulya and Yıldız stations have a daily capacity of 100 thousand passengers. Thus, transportation will be relieved especially in Fulya and Yıldız, which are among the most congested ar-

reas in Istanbul. Our passengers will be able to transfer free of charge from Mahmutbey direction to Yıldız direction and from Yıldız direction to Mahmutbey direction by passing to the opposite platform at our Mecidiyeköy station. With the stations we opened today, Metro Istanbul has reached a total line length of 193.45 kilometers and 197 stations.”

Just 4 days later (06.01.2023), this time the M8 Bostancı-Dudullu-Parseller Line was put into service. 14.3 km long and 13 stations passing through 4 districts (Bostancı, Emin Ali Paşa, Ayşekadın, Kozyatağı, Küçükbakkalköy, İçerenköy, Kayışdağı, Mevlana, İMES, Modoko-Keyap, Dudullu, Huzur, Parseller) Construction of the Dudullu-Bostancı metro line started on February 26, 2016. The metro line connects the districts of Maltepe, Kadıköy, Ataşehir and Ümraniye on the Anatolian side, where approximately 1.7 million people live. The line provides integration with sea lines and other rail lines at different points. The line, which is built with the latest technology electro-mechanical system, will serve as a “Fully Automatic Driverless Metro” and will be able to make a trip every 90 seconds. The subway, which will reduce the Bostancı-Dudullu interval to 21 minutes, will be able to carry 44,400 passengers in one direction per hour. For safety at the stations, “Full Height Platform Separator Doors” were used to prevent falling off the rails. Within the scope of the investment, a total of 2,831 underground parking lots, 869 in Bostancı and 1,962 in Kozyatağı, will be built.



## ISIB Participates in International Conferences as a Sponsor

The HVAC-R Exporters Association (ISIB) participated as a sponsor in the Building Engineers Association Conference held in Jakarta, the capital city of Indonesia, on December 10.

Cem Savcı, Member of the Board of Directors representing ISIB, attended the event organized under the main theme of "Building Regulations for the Implementation of Green and Smart Buildings". During the conference, which was inaugurated by Mr. Yongkie Tileno, President of ASHRAE Indonesia Chapter, Cem Savcı, Member of the Board of Directors of ISIB, made a presentation on the strengths of the Turkish HVAC-R Sector, basic statistics and the position and activities of ISIB.

Yongkie Tileno, President of ASHRAE Indonesia Chapter, and other guests who visited the promotional booth opened by ISIB in the event area were informed about the Sectoral Trade Delegation program to be held in March 2023.

### ISIB Participated in HVACR Trends Conference as a Diamond Sponsor

HVAC-R Exporters Association (ISIB) participated in the HVACR Trends Conference held in Karachi, Pakistan on December 3-4 as a diamond sponsor.

Ali Aktaş, Member of the Board of Directors representing ISIB, attended the event held for the 2nd time with the

main theme of "Reducing Energy Costs in a Time of Exploding Energy Prices". Within the scope of the event, Eyyüp Yıldırım, Attaché of the Republic of Türkiye in Karachi, and Ali Aktaş, Member of the Board of Directors of ISIB, cut the opening ribbon of the event, and 32 exhibitor companies attended with their booths and held business meetings. While the officials of 3 Turkish exhibitor companies held their negotiations and meetings at the ISIB booth, 1 Turkish company participated in the conference with its booth.

### ISIB Participated ASHRAE CRC 14th Regional Conference as the Platinum Sponsor

HVAC&R Exporters Association (ISIB) participated in the ASHRAE CRC 14th Regional Conference held in Madrid, Spain, on September 9-10 as the platinum sponsor.

Zeki Poyraz, Vice Chairman of the Executive Board, O. Murat Erenoğlu, Member of the Executive Board, and Ahmet H. Gökşin, Member of the Supervisory Board and Chairman of the ASHRAE Turkish Chapter, participated in the event, which was held with the theme of creating the global vision of the HVAC-R sector to meet the 2030 and 2050 decarbonization targets, on behalf of ISIB. Within the scope of the event, which was initiated by Teresa Riesko, Secretary General of the Innovation unit of the Spanish government, technical seminars and many business meetings were held, especially the Industry Round Table meeting. The closing dinner of the event was held with the participation of

Farooq Mehboob, President of ASHRAE.

### ISIB supported Pakistan HVAC Trends Fair and Conference through Platin Sponsorship

Turkish HVAC&R Exporters' Association (ISIB), the global business partner of Turkish HVAC&R Sector, supported the HVAC Trends Fair and Conference through platin sponsorship. The organization was held in Karachi, Pakistan, on 27-28 November 2021.

The event was organized by American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Pakistan Chapter. ASHRAE has over 57.000 members in more than 132 countries. Republic of Türkiye Consul General to Karachi, Mr. Tolga Uçak, and ISIB Vice President Mr. Zeki Poyraz also took part in the opening ceremony of the HVAC Trends Fair and Conference.

### ISIB Participated in International MechTalks Conference as Platinum Sponsor

HVAC-R Exporters Association (ISIB) participated as a platinum sponsor in the International MechTalks Conference held at Istanbul Mandarin Oriental Hotel on November 24.

Turkish Society of HVAC and Sanitary Engineers (TTMD), The Association of Mechanical Contractors (MTMD), and Borusan Mannesmann hosted the event under the title of "Proper, Clean, Safe and Efficient Energy for a Livable World, If Not Now, When?", and the event was attended by executives and professionals from organizations, associations, and companies in the Turkish HVAC-R sector.





Mehmet Şanal, Chairman of the Board of Directors of ISIB, who delivered the opening speech of the session titled "Zero Energy Building Management" of the event organized for the second time this year, stated that the HVAC-R Exporters Association is the largest stakeholder of the sector exporters on a global scale and has an active role in carrying out many activities ranging from marketing to sales, from communication to the establishment of business networks.

## ISIB's National Participation Organization to International Exhibitions

HVAC&R Exporters Association (ISIB) attended a national participation organization at the Agro Food Drink Tech Exhibition held in Tbilisi, the capital of Georgia, between November 18 and 20. Agro Food Drink Tech Exhibition, the only specialized industry exhibition in Georgia presenting the latest developments and innovations in the field of agriculture and related technologies, was organized for the 20th time this year. Products for cooling and ventilation systems from the HVAC&R Sector were exhibited at the exhibition launched with the opening addresses of George Khanishvili, Deputy Chief Minister of the Ministry of Environmental Protection and Agriculture of Georgia, and Ali Kaan Orbay, Ambassador of the Republic of Türkiye to Tbilisi. Within the scope of National

Participation, six companies from Türkiye attended the exhibition.

George Khanishvili, Deputy Chief Minister of the Ministry of Environmental Protection and Agriculture of Georgia, visited the booths of Turkish companies after the launch of the exhibition and was informed by the officials of the participating companies. Ali Kaan Orbay, Ambassador of the Republic of Türkiye to Tbilisi; Ahmet Darçın, Commercial Counselor of the Republic of Türkiye to Tbilisi, and ISIB Board Member Levent Aydın also visited the booths at the exhibition and engaged in negotiations.

## National Participation Organization from ISIB to Mega Clima Algeria Exhibition

The HVAC-R Exporters Association (ISIB) made a national participation organization in the Mega Clima Algeria Exhibition, which was held in the city of Algeria, the capital of Algeria, on October 10-13. 9 companies from Türkiye participated in the organization of national participation to Mega Clima Algeria, which is the biggest HVAC-R Exhibition in Algeria. As well as Türkiye, companies from India, Tunisia, Kenya, France, Ireland, China, Serbia, and Germany participated in the exhibition where 75 international participant companies took part. Products for Cooling, Air-Conditioning, and Installation systems were exhibited mainly at the exhibition.

## Turkish HVAC-R Industry Increases Its Efficiency in Azerbaijan

HVAC-R Exporters Association (ISIB) made a national participation organization

in the Aquatherm Baku Exhibition, which was held in Baku, the capital city of Azerbaijan, on October 19-21.

12 ISIB member companies participated in Aquatherm Baku, which is the largest HVAC-R exhibition in Azerbaijan and the Caucasus, within the scope of the national participation organization. In the exhibition attended by 279 companies from 17 countries, products for Heating, Air-Conditioning, and Installation systems were exhibited.

## ISIB organized a National Participation Organization in Aquatherm Tashkent Exhibition

HVAC-R Exporters Association (ISIB) organized a national participation organization in the Aquatherm Tashkent Exhibition held in Tashkent, capital of Uzbekistan, on 28-30 September.

Aquatherm Tashkent Exhibition, the only industry-specialized exhibition presenting the latest developments and innovations in the HVAC technology field in Uzbekistan, celebrated its 10th anniversary this year. The exhibition started with the opening speeches of Uzbekistan Ministry of Housing And Social Services Deputy Minister Kurban Turunov and ISIB Board Member Levent Aydın hosted 174 participant companies consisting of national and international manufacturers, distributors, and agencies, and more than 7000 visitors this year. Mostly, products for Heating, Refrigeration, Air-Conditioning, and Installation systems were displayed in the exhibition.

16 companies from Türkiye participated in the exhibition within the scope of



National Participation. Apart from the national participation organization, 19 Turkish companies also participated individually.

#### **ISIB organized a National Participation Organization in Indonesia Refrigeration & HVAC Exhibition**

HVAC-R Exporters Association (ISIB) organized a national participation organization in the Refrigeration & HVAC Exhibition held in Jakarta, capital of Indonesia, on 21-23 September.

Refrigeration & HVAC Exhibition, which is the biggest refrigeration and HVAC exhibition in Indonesia, was attended by 112 participant companies consisting of national and international manufacturers, distributors, and agencies and hosted more than 9.500 visitors this year. Mostly Refrigeration, Air-Conditioning, and Installation products were displayed in the exhibition.

6 companies from Türkiye participated in the exhibition within the context of National Participation, which was attended by Board Members Levent Aydın Cem Savcı and Supervisory Board Member Murat Bakanay on behalf of ISIB.

#### **ISIB organized a National Participation Organization in Aquatherm Almaty Exhibition**

HVAC-R Exporters Association (ISIB) organized a national participation organization in the Aquatherm Almaty Exhibition held in Almaty, Kazakhstan on 7-9 September.

On behalf of ISIB, ISIB Board Members Zeki Özen and Levent Aydın participated in the Aquatherm Almaty Exhibition held on the main topics of construction, inte-

rior design, and heating in Kazakhstan. The exhibition started with the opening speech of Board Member Zeki Özen hosted 115 participant companies consisting of national and international manufacturers, distributors, and agencies from 12 countries, and more than 5600 visitors this year.

14 companies from Türkiye participated in the exhibition within the scope of National Participation. Information was exchanged with Siddık Kaya, and Ekrem Alper Bozkurt, Republic of Türkiye Commercial Attaches to Almaty, who visited the ISIB stand, companies included in the national participation, and individual participants on the first day of the exhibition.

#### **ISIB organized a National Participation Organization in Egypt**

HVAC-R Exporters Association (ISIB) organized a National Participation organization for its exporters at the EGYPT HVAC-R EXPO exhibition which was held in Cairo, capital of Egypt, on May 23-25. This important exhibition in which more than 200 companies participated and visited by different suppliers and professionals including engineers, contractors, architects, and plumbers was attended by ISIB Vice Chairmen of the Board Metin DURUK and Zeki POYRAZ on behalf of ISIB.

At the ISIB stand, exhibition participants were informed about the Turkish HVAC-R Sector products with a delegation consisting of 35 persons in total. 16 Turkish companies participated in the exhibition from Türkiye. Some of our companies held their negotiations and meetings at the ISIB stand.

## **ISIB Joined International Exhibitions and Conferences with Info Stand**

ISIB provides an environment for companies in the Turkish air conditioning industry to develop commercial connections in international events it participates in with its info stand.

Some of those;

Pakistan HVAC-R Expo & Conference Exhibition was held in Lahore, Pakistan, on June 9-11.

The VSK International Trade Exhibition was held in Utrecht, the Netherlands on May 17-20.

Romtherm 2022 Exhibition was held on between 24 and 27 March 2022 at Romexpo Fairgrounds in Bucharest, Romania.

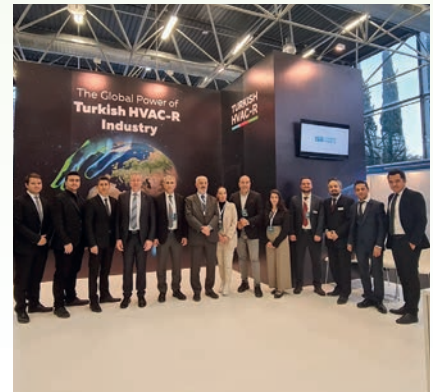
The Instalacje Fair, which was held in Poznan, Poland, between 25-27 April 2022.

Aquatherm Prague Fair was held in Prague, which is the capital of Czechia, between 19-22 April 2022.

Aquatherm Moscow Fair was held between 15-18 February 2022 at the Crocus Expo Fairground in Moscow.

2022 Mostra Convegno Expocomfort, of which Türkiye is a Partner Country, open its doors in Italy

MCE – Mostra Convegno Expocomfort Exhibition, which is a worldwide event in the HVAC-R and renewable energy fields, opened its doors with an opening on 28 June 2022 in Milano, Italy. In the exhibition, of which Türkiye is a





partner country, the opening ceremony took place with the participation of the Republic of Türkiye Minister of Industry & Technology Mustafa Varank. The exhibition, in which HVAC-R Exporters Association (ISIB) played an active role in the organization, will allow to bring manufacturers, designers, and engineers in many fields belonging to the HVAC-R sector with the contracting and construction companies' executives and allow them to build strategic relationships this year. This year, the exhibition's other significant concept is the area of development in renewable energy and energy efficiency industries. Visitors to the exhibition and Turkish exporters came together with a cocktail event hosted by Mehmet Şanal, Chairman of the Board of ISIB, in the exhibition, in which many different events will be held in the field of the HVAC-R industry during the exhibition. Mehmet Şanal, Chairman of the Board of ISIB, expressing that the exhibition is a critical building block for the Turkish HVAC-R Sector, said as follows: "Mostra Convegno Expocomfort exhibition is one of the most important exhibitions in the HVAC-R Sector in the world. The reason why the exhibition is particularly important to us this year is that Türkiye is participating in this exhibition as a partner country. More than 2000 participant companies exhibit their products in this year's exhibition. We envisage that approximately 150 thousand visitors will show up at the exhibition. We are attending the exhibition with 139 companies from Türkiye. Turkish companies were given priority in the participation demands since we are participating in this exhibition with the

partner country concept. Special promotions will be carried out for Türkiye during the exhibition and we will intensely work on the emphasis on Türkiye, the partner country, during the exhibition."

## ASHRAE's Global HVACR Summit and RAL CRC Meeting was Held in Istanbul with over 400 Representatives

The Global HVACR Summit and RAL CRC organization of HVAC-R Exporters Association (ISIB) is the main sponsor, organized by ASHRAE, was held at Istanbul The Green Park Pendik Hotel & Convention Center October 9-14.

Zeki Poyraz, the Türkiye Representative of ASHRAE RAL CRC and Vice Chairman of the Board of Directors of İSİB, led the events hosted by Farooq Mehboob, ASHRAE President, and Board Members of ASHRAE with the participation of ASHRAE Regional Presidents from all over the world, ASHRAE Executive Board members from the United States and ASHRAE members from many different countries.

## Turkish HVAC-R Sector Is Increasing Its Commercial Activities In Hungary And Countries In The Region

HVAC-R Exporters Association (ISIB)

brought together Turkish HVAC-R Sector exporters with businesspeople from Hungary, Slovakia, and Czechia in Budapest, the capital of Hungary, on 19-21 September 2022.

71 companies from Hungary, and 7 companies from Slovakia and Czechia participated in this important organization which was attended by 23 companies from Türkiye within the scope of the trade mission program. Board Members Zeki Özen and Ali Aktaş participated in the Trade Mission organization on behalf of ISIB.

## ISIB Brought Together 30 Companies from Balkan Countries with Turkish Businesspeople

HVAC-R Exporters Association (ISIB) brought together the company owners and executives who came to Türkiye from different countries in Balkans with Turkish businesspeople.

30 professionals and businesspeople of 30 companies from Albania, Bosnia-Herzegovina, Macedonia, Romania, Slovenia, Kosovo, Croatia, Serbia, and Bulgaria participated in the organization held at Lazzoni Hotel in Istanbul on September 13 within the scope of the Balkans Buyer Mission Programme program.

B2B meetings were held between the Turkish and foreign committees within the scope of the program which was attended by 73 companies in the Turkish HVAC-R Sector.



## İSİB Chairman Mehmet Şanal

**“Turkish HVAC&R sector aims to get a share of 1.5 percent from the world market and become a sector with foreign trade surplus”**

**T**he Turkish HVAC&R sector completed 2022 in a coordinated and efficient manner with all its stakeholders from marketing to sales, communication to implementation.

In 2022, we recorded a 7.9 percent growth compared to last year with an export volume of 6.7 billion dollars. Our industry, which increased its exports in all sub-product groups except the Heating System and Components sub-sector, increased exports by 21.5 percent in the Cooling System and Components sub-sector, 27.3 percent in Air Conditioning System and Components, 8.4 percent in Installation System and Components, 10 percent in Ventilation System and Components, and 20 percent in Insulation Materials in 2022 compared to 2021. A 7.9 percent decline was recorded in the Heating Systems and Components sub-sector. As İSİB, we discussed the reasons and solutions for this decline in the Heating Systems and Elements sub-sector at our Board of Directors meeting and we will take action on this issue.

In 2022, the countries with the highest exports were Germany, the United Kingdom, Italy, Russia and France, respectively. The kilogram unit price of the sector increased from 4.63 dollars in 2021 to 5.35 dollars in 2022. This proves that our sector is effective in producing value-added products.

In 2022, in addition to European countries, we also increased our market share in Central Asian countries, Balkan countries, African and South American countries, which promise potential and where our country cannot get the market share it deserves.

In 2022, we participated in 23 different international fairs for our exporters with our national participation and info stand models, and organized Sectoral Trade delegations to Uzbekistan, Brazil, Argentina and Hungary. In addition, we organized separate procurement delegations for delegations from North African countries and Balkan countries. In July, Türkiye became the Partner Country at the Mostra Convegno Expocomfort Fair held in Milan, one of the most important fairs of our sector, with the initiatives of



our Association. A total of 139 exporter companies participated in the fair. As the Turkish HVAC&R sector, our main goal is to get a share of 1.5 percent from the world market and to become a sector that gives foreign trade surplus. We are working with all our strength for this goal. This year, our sector was negatively affected due to the Dollar-Euro parameter variability. While 60% of the imported input cost of the sector is based on Dollars, 65% of our sector exports are based on Euros. For this reason, the ratio of air conditioning sector exports to imports was realized at 93.5% this year. The share we received from the world was 1.37 percent as a sector. According to TIM data, we are the 11th largest sector in Türkiye.

The Turkish HVAC&R sector is the European market leader with its production capacity in split air conditioners and the world leader in radiator and towel warmer exports. We are taking firm steps towards becoming the world's production base in the production of boilers, ventilation equipment and flexible air ducts. We aim to achieve similar success in other product groups such as cooling, installation and insulation and to enter the top 10 in the world ranking in the medium term.

In addition, with the latest decision taken in line with the negotiations and studies carried out by İSİB with the Ministry of Trade, the expenses for exhibiting Building Information Modeling (BIM) on international platforms were included in the scope of Promotion Support, Trade-

mark and Turquality Supports. Our exporters now have effective support for the BIM platform, which enables the coordinated work of architectural, mechanical and electrical disciplines used in the construction stages of construction projects and the subsequent operation of buildings.

In 2023, we have set our biggest goal to become a sector that generates foreign trade surplus. In line with the reports from the Foreign Trade Intelligence Center we have established within our organization and the opinions we receive from our exporters, we have planned and will implement more than 30 activities ranging from foreign trade delegations, fair participation, procurement delegations, overseas training - B2B meetings. This year, we are organizing a large buyer delegation organization for the ISK Sodex Fair to be held at the end of October. Our goal here will be to bring together more than 500 qualified overseas buyers with our sector exporters in Türkiye.

At the Sector Strategy Workshop we held in Antalya in November, we determined an efficient and effective sales and marketing strategy in global markets with all stakeholders.

With 16 different working groups, we will enter 2023 stronger by updating and improving our strategy document. We are also carrying out serious studies on the effects of the carbon regulation mechanism to be implemented by the European Union at the border on our sector. We will make improvements for the adaptation of air conditioning systems to the green consensus standards to be set by Europe. We are working together to ensure that our industry is ready for this process.

As İSİB, we act in unity, solidarity and harmony with the Exporter Associations, Sector Council and Associations that make up the sector. In 2023, with our vision of R&D and innovation, we will continue our work on new product development without slowing down. Our primary mission is to support our exports and stand by them at all times. We will continue our activities uninterruptedly in order to do this all over the world.





# Companies & Products

### AIRONN HAVALANDIRMA SAN. A.Ş.

www.aironn.com.tr



As AIRONN, we are glad to announce that our R&D projects in Subway Ventilation, Tunnel Ventilation, and Smoke Dampers are now touching people's life. Starting in 2014, Aironn has been endeavored to develop its business in the above mentioned three areas in order to save country budget in projects, export to other countries, and be the market leader not just in Türkiye, also in the region. Thanks to AMCA accredited laboratory, our tests show very good results in Tunnel and Subway ventilation. Also, because of the new damper laboratory, we can test our dampers and obtain the required results.

#### Subway Ventilation:

- ✓ Wide range of diameter from 1400 mm to 3000 mm
- ✓ Wide range of motor power starting from 75 kw up to 550 kw
- ✓ Aerodynamic fan blades made of ETIAL I7I and statically and dynamically balanced in accordance with ISO 1940/I-2003.
- ✓ F300 300°C/2h
- ✓ F400 400°C/2h

#### Tunnel Ventilation:

- ✓ Wide range of diameter from 400 mm to 1800 mm
- ✓ Wide range of motor power starting from 0,75 kw up to 160 kw
- ✓ Aerodynamic fan blades made of ETIAL I7I and statically and dynamically balanced in accordance with ISO 1940/I-2003.
- ✓ Hot-dip galvanized or Stainless steel housing
- ✓ F300 300°C/2h
- ✓ F400 400°C/2h

#### Smoke Dampers:

- ✓ 1,5 mm galvanized steel self-flanged frame
- ✓ Double-layer aerodynamic blades with 1,2 mm galvanized steel
- ✓ Special design blade silicone seals
- ✓ Stainless steel jamb seals
- ✓ Electric Automatic actuator
- ✓ Ca-Si Motor cover
- ✓ Certified dampers



Applus<sup>®</sup>  
EN 12101-3 CE





## ÇUKUROVA ISI A.Ş.

www.cukurovaisi.com




Çukurova İsi had been established in the first quarter of 1991 to serve in the field of industrial heating by means of low intensity radiant heaters, which are generally used to heat large buildings such as factories, aircraft hangers, warehouses that are difficult to heat. In the course of years, Çukurova İsi has expanded the area of work from low intensity radiant heaters to high intensity radiant heaters, from tubes to ceramics, from gas to electrical ones, from space heating to process heating depending upon the need risen in the market. Çukurova İsi has always been the pioneer in the market and held the leader position. GOLDSUN is the trademark of Çukurova İsi that is used for high intensity heaters which have been manufactured since the year 2000. Under the brand name of GOLDSUN, Çukurova İsi first started to manufacture electrical high intensity infrared heaters and then gas fired ceramic plaque heaters.

### GOLDSUN HIGH INTENSITY INFRARED HEATERS

#### Custom Design Reflectors

The parabolic reflector of Supra plus and Supra series, has been designed and developed in our laboratories and is shown to enhance heating efficiency by 28%. Reflecting 99% of the rays towards the target, SUPRA PLUS and SUPRA series helps the environment by means of minimum energy loss. AQUA's custom designed reflector better focuses the heat, creating the intense heat output needed under parasols and pergolas. For the Nova series, deep reflector design provides wider heating coverage without loss of performance.

#### High End Quality - High End Design

All the parts used in our SUPRA PLUS and SUPRA series are made of rustproof and robust materials for long life. The SUPRA PLUS and SUPRA range will not exhibit any sign of degradation or deterioration even in the harshest of environmental conditions. Being fashionably designed it will fit into the esthetics of the most elegantly designed restaurant or cafe and will not disturb the eye while its struggle with the cold, keeping your customers comfortable and warm. Thanks to AQUA's aluminium and stainless steel body parts, no matter how hard the external conditions are, Aqua series do not show even a glimpse of wear or loss of its esthetic looks. Due to its compact design it is easy to install and easy to operate.

#### IP55 Weather Proof

Do not let the hard weather conditions interrupt your business! Thanks to its IP55 rated water protection, Goldsun SUPRA PLUS, SUPRA and AQUA creates a comfortable ambient even under pouring rain.

#### High Capacity Ranges

It is much easier to determine the best intensity to create a warm environment with various capacities of Goldsun heaters changing from 1500W-4000W. As high ceilings, strong winds will not be a problem.

### GOLDSUN GAS FIRED OUTDOOR HEATERS

#### 3-Stage Combustion System:

Goldsun Elite and Performa series of high intensity ceramic plaque heaters are equipped with double-stage (3-Stage) combustion system which enables the user to adjust the comfort level of heating using high-med-low options.

#### Ease of Installation:

Goldsun Elite and Performa heaters can easily be installed to many different locations on the walls or ceiling by means of specially designed brackets supplied with the heater.

#### Unique Wind Resistance (Elite):

With the translucent ceramic glass panel and double ionization electrodes construction, engineered in house by experienced Cukurova's team, incoming wind currents are completely blocked, resulting Elite series heaters have no problem in operation with this unique wind protection (up to 20 km/h of wind). Moreover, as the burner is fired, this translucent ceramic glass panel is heated immediately becoming an effective emitting surface of the radiant energy, so that wider areas can be heated comfortably in a few minutes with a soft reddish lumination.

#### Wind Resistance (Performa Series):

Goldsun Performa heaters' sheltered structure allows them to run smoothly without losing efficiency even in winds of up to 14 km/h. The high temperature-resistant, decorative stainless steel wind shield installed in front of the ceramic burner and the ionization electrodes settled on both ends ensure reliable start and smooth operation of the burner by banning wind currents effectively.

#### Aesthetic Design:

Goldsun Elite & Performa heaters are both designed aesthetically so that they may be used preferably in a variety of areas, such as cafés, restaurants, patios, pergolas and winter gardens. The heaters may fit very well architecturally to nice looking and elegant constructions resulting to be one of the most preferred heaters by architects and property owners.

#### Deflector:

A specially designed "heat shield" ("deflector") may be mounted (optional) to reduce the distance to combustibles providing safer usage of the heater under all type of fire-sensitive awnings, canopies or pergolas.

#### Remote Control:

Up to 16 heaters can easily be controlled with a single remote controller unit. (Original remote control unit included with the heater)

#### German Made Ceramic Tiles:

To be able to supply the highest combustion efficiency and heating performance available in the market, German made high quality ceramic tiles and stainless grates are used within the construction of the burner of Goldsun Elite & Performa heaters.

#### Reflector:

With the design developed within Cukurova's Lab, the reflectors of Goldsun Elite and Performa heaters emit the radiant energy focusing the area to be heated rapidly and more efficiently.

### EBITT AKIŞKAN TEKNOLOJİLERİ SAN. VE TİC. LTD. ŞTİ.

[www.ebitteurope.com](http://www.ebitteurope.com)



EBITT is a professional company that has a strong knowledge of expertise in the field of fluid transfer systems and technologies.

EBITT Group of Companies are focused on a product and service concept that makes a difference in the fluid technology, providing added value to its customers.

EBITT has a range of products from basic appliance and systems to process-specific equipment in the fields where water and fluid technology is used; such as houses, industrial plants, service buildings and facilities, agriculture, irrigation, swimming pools, treatment facilities, and process specific needs.

EBITT Group of Companies integrated its production, sales and service, storage and logistics facilities with its companies in Asia, Türkiye, Hungary and Italy to provide the most efficient technology to customers at the global scale with the most affordable price, in the shortest time and to assure the customer of its support after sales.

The EBITT Group of Companies are beside you, wherever you are in the world, with new companies it will establish in new locations, in addition to the existing ones, and with regional solution partners.

EBITT Products have been produced according to the following criteria;

- The highest technology
- The highest efficiency
- The highest quality
- The best service warranty

#### Product Program

EBITT products belong in the groups under the following headings according to function, technicality and place of use;

- Wet Rotor Inline Circulation Pumps
- Dry Rotor Inline Centrifugal Pumps
- Horizontal End Suction Centrifugal Pump
- Horizontal Multistage Centrifugal Pumps
- Vertical Inline Multistage Centrifugal Pumps
- Pool Circulation and Filtration Pumps
- Process Pumps
- API Design Heavy Duty Type
- Domestic Booster Sets

- Industrial Booster Sets
- Fire Pump Systems & UL Listed Packages
- Waste Water Drainage Pumps
- Sewage Pumps
- Control and Automation Panels

#### Accessories

- Expansion Tanks
- Accumulation Tanks
- Water Storage Tanks
- Safe Valves
- Pressure Reducer Valves, Pressure Regulators
- Butterfly Valves
- Strainers
- Compensators
- Suction Valves
- Water Compact Units
- Wastewater Treatment Packages
- RO Systems
- Level Sensors and Float Valves

All of the products in the program have sufficiency certification like UL, CE, ISO, OHSAS, GOST, TUV and Bureau Veritas and all product groups have equal sales service and warranty terms and conditions. EBITT's product program is a dynamic and vital one. The products are constantly being further developed and advanced to keep up with technology and their features of use.





Elektropanel Mühendislik San. ve Tic. Ltd. Şti.

[www.elektropanel.com](http://www.elektropanel.com)



Elektropanel Engineering has expanded its activities, which started with the manufacturing and installation of electrical panels, with new services in the field of electricity and electromechanics.

With its expert staff and uncompromising quality and honesty principles, Elektropanel has undertaken many prestigious projects at home and abroad.

Elektropanel uses components from global players such as ABB, Danfoss, Siemens, Schneider Electric, LS Electric, Chint and Wago in its products, and also serves as the supplier of these materials.

Customer satisfaction is at the focus of business process management of the company, which is a reliable solution partner in electrical project and turnkey contracting services, automation applications of fan, HVAC and cooling systems, and cable grouping.

Elektropanel specializes in electrical panels and produces in modern facilities and helps its customers optimize their energy distribution and control processes by providing customized solutions. Elektropanel's production process is carried out with the use of the highest quality materials, advanced technology-based equipment and the meticulous work of its experienced staff. In this sense, Elektropanel uses international standards using world-famous brands such as ABB, Siemens, Schneider Electric, Rittal, Wago, Danfoss and EAE. Quality, safety and customer satisfaction are prioritized on its production process. Elektropanel works to offer the best solutions and experience to customers with its expert staff.



**Electrical Panels:** Main Distribution Boards - ADP, Engine Control Center Boards - MCC, Automation Control System Panels - ACS, Sub Distribution Panels, Compensation Panels

**Elektropanel is the supplier of products of the world's leading brands:** Switchgear Products (Automatic Fuse, Contactor, Switch, Motor Protection Switch), Relay, Motor Drives, PLC/Electronic Products, Terminal Block/Connector, Switch/Socket

#### Services provided by Elektropanel Project:

##### Project

"Elektropanel" is a reliable solution partner with its strong engineering and software infrastructure in the project design process, which is the first requirement for trouble-free operation, regardless of the type and scale of the buildings.

##### Contract

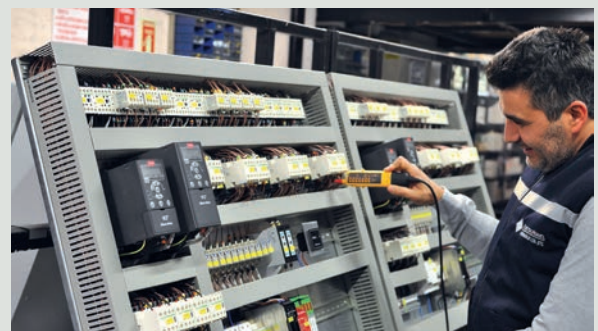
Elektropanel successfully implements electrical projects including medium voltage, low voltage and low current systems. The strong references of Elektropanel, which stands behind the projects it undertakes, are proof of its success.

##### Industrial Automation

"Elektropanel" meticulously implements industrial automation applications that reduce the operating costs of industrial facilities and increase efficiency at all levels, from the corporate level to the field level.

##### Cable Harnessing

Elektropanel performs cable harness, including cutting, routing, marking, soldering and nailing cables to specific dimensions to meet site requirements, with precision that minimizes operator errors.



### FORM ENDÜSTRİ ÜRÜNLERİ TİCARET A.Ş.

[www.formmerkeziklima.com](http://www.formmerkeziklima.com)



#### Form is Growing with the Power of Local Production and R&D

Form, one of the leading companies in the air conditioning industry in Türkiye, continues to undertake value-added projects with its 58 years of experience in the industry and prioritizing local production. Producing a wide range of domestic and commercial products from rooftop air conditioners to heat pumps, fan coils to air handling units, evaporative cooling units to smoke evacuation systems, Form provides full service with its product range, combined with high efficiency and technology.

Form Group stands out with its country wide sales network, its innovation and strong production capabilities.

#### Turkish distributor of the world giants

On the sales side Form also expands the options it offers to the customers through domestic products as well as being the sole authorized distributor of several global industry leaders in Türkiye like Lennox, Mitsubishi Heavy and others. Including locally produced products such as Form WSHP water source heat pump, fan coils, air handling units Form also produces and sells the rooftop air conditioners of the Lennox brand in Türkiye as a part of a licensing agreement. Form is the first company in the world that Lennox has granted sole licensed production rights for rooftop air conditioners.

#### High level of R&D and local production

On the industrial equipment production side, Form also produces evaporative cooling units, smoke evacuation, natural ventilation and natural lighting systems. Responding to the demands and needs of the industry with the fastest and most efficient products, Form makes a significant contribution to exports and employment with its strong staff, experience and R&D investments.

#### All Stars To FKS Air Handling Units

FORM has released new Eurovent certified FKS air handling units (AHUs) to provide customers with the best possible solution for all types of project requirements. FKS air handling unit, which has a world-class competitive perfor-

mance, is attracting great attention from domestic and international markets.

It stands out especially with T2 (TT Class) in Thermal Transmittance class and TBI (TBF Class) in Thermal Bridging class values which represent very low energy loss.

FORM FKS Air Handling Unit, which can be produced in 60 different modules with a flow rate between 1,000 m<sup>3</sup>/h and 100,000 m<sup>3</sup>/h, has a special steel casing structure and 60 mm double skinned panels with thermal barrier PVC profile.

FKS air handling units meet the required level of indoor air quality while maintaining the humidity and the temperature under control. With modular, flexible and environment friendly solutions, it provides ideal comfort for commercial and residential buildings while providing high energy savings.







**ELEKTROPANEL**  
MÜHENDİSLİK LTD. ŞTİ.

# Electrical Panels

Powerful Engineering  
*in the Production and Assembly*

- ◆ *Motor Control Center Panels - MCC*
- ◆ *Automation Control System Panels - DDC-ACS*
- ◆ *Building Management System Panels - BMS*
- ◆ *Main Power Distribution Panels - MPDP*
- ◆ *Industrial Automation Systems*
- ◆ *Cable Harness*

**Elektropanel Mühendislik San. ve Tic. Ltd. Şti.**

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info@elektropanel.com | www.elektropanel.com



for Our New Website

### FRİGOTERM SOĞUTUCU CİHAZLAR SAN. VE TİC. A.Ş.

www.frigoterm.com.tr



Frigoterm was established in 1970 by Mr. Kadir Fikret Akdoğan to meet refrigeration industry manufactures – exporters needs which are refrigeration parts (compressor, cooling fans, axial fans) and components (driers, thermostats, valves, controllers etc.)

We are the sole distributor and exclusive agent of world refrigeration equipments and components manufacturers TECUMSEH, ELCO, AKO, REFNOX, MOOWEX and I-COLD in Türkiye.

We have been working with air drier, central and split unit systems, cold rooms, kitchenhood equipments, supermarket display cabinet and bottle cooler manufacturer companies.

Frigoterm has been distributing of its products to his customers directly or through dealers locally or worldwide. Our company has been and will continue its activities as a trust worthy brand in the industry without abandoning its principles and will always be with his partners.



## refnox



## MOOWEX

Axial Fan



## FRIGOLED

Coldroom Led Lighting Systems





**VENCO HAVALANDIRMA VE MAK. SAN. TİC. A.Ş.**[www.venco.com.tr](http://www.venco.com.tr)**30 Years in Ventilation and Fan Industry: VENCO  
"Truly Ventilation"**

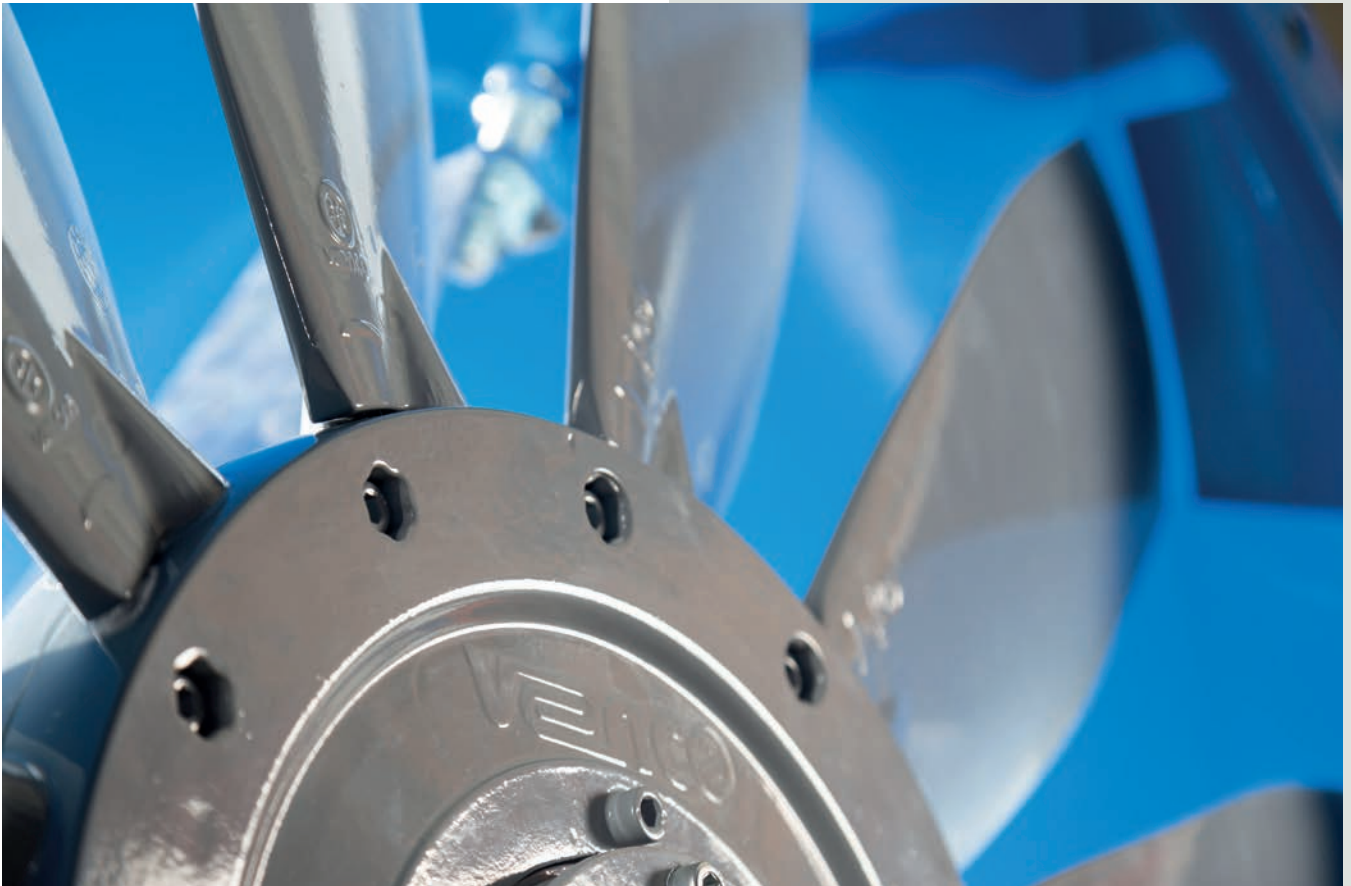
The leading ventilation and fan corporation both in Turkish and regional markets, VENCO Ventilation, offers high quality and high-tech solutions to prestigious projects all around the world with cutting edge technological products and smart systems designed and produced with 30 years of experience in HVAC industry.

VENCO's adventure began in 1992 as IMCO, distributing products of European manufacturers. Aiming to produce its own products, IMCO established VENCO in 2000. Owing to increasing sales volume and expanding product range by each

year, both companies were incorporated under VENCO in 2019. As a solution partner that provides ventilation and exhaust systems to global large scale projects, VENCO has been conducting its production in Turgutlu IP in Manisa, Türkiye since 2010.

Offering a wide range of high quality, environment friendly and high energy efficient products, VENCO improves and enhances its products and technologies while expanding its product range through R&D and P&D. VENCO product range includes ex-proof and F400 class fire resistant fans, heat recovery units, smoke exhaust fans, fresh air and pressurization fans, air handling units, heaters, silencers, aspirators and ventilators, automatic control systems and all products are distributed to consumers in more than 70 countries through global sales channels.

In addition VENCO offers digital flexibility with remote access and control application support through smartphones, tablets and computers for its technologies and solutions.



	AIRONN HAVALANDIRMA SAN. A.Ş.	<a href="http://www.aironn.com.tr">www.aironn.com.tr</a>	Jetfans, fire and smoke extract fans, metro and tunnel fans, cell fans, axial fans, dampers
	ÇUKUROVA ISI ANONİM ŞİRKETİ	<a href="http://www.cukurovaisi.com">www.cukurovaisi.com</a>	Industrial heating, radiant heaters, space heating, process heating
	EBİTT AKIŞKAN TEKNOLOJİLERİ SAN.VE TİC. LTD. ŞTİ.	<a href="http://www.ebitteurope.com">www.ebitteurope.com</a>	Pumps and booster systems, EN and UL listed fire fighting systems and boosting accessories
	Elektropanel Mühendislik San. ve Tic. Ltd. Şti.	<a href="http://www.elektropanel.com">www.elektropanel.com</a>	Motor control center panels - MCC, automation control system panels - DDC-ACS, building management system panels - BMS, main power distribution panels - MPDP, industrial automation systems, cable harness
	FORM ENDÜSTRİ ÜRÜNLERİ TİCARET A.Ş.	<a href="http://www.formmerkeziklima.com">www.formmerkeziklima.com</a>	Fancoils, air handling units, water source heat pumps, rooftops, heat recovery, chillers, cooling towers and other commercial air conditioning products
	FRİGOTERM SOĞUTUCU CİHAZLAR SAN. VE TİC. A.Ş.	<a href="http://www.frigoterm.com.tr">www.frigoterm.com.tr</a>	Refrigeration parts (compressor, cooling fans, axial fans) and components (driers, thermostats, valves, controllers etc.) coldroom led lighting systems
	VENCO HAVALANDIRMA VE MAK. SAN. TİC. A.Ş.	<a href="http://www.venco.com.tr">www.venco.com.tr</a>	Jet fan systems, heat recovery units, smoke exhaust fans, ex-proof fans, duct type fans, air handling units, roof type fans, pressurization fans, electrical heaters, ventilation products & accessories



MINISTRIES	
Ministry of Foreign Affairs	<a href="http://www.mfa.gov.tr">www.mfa.gov.tr</a>
Ministry of Trade	<a href="http://www.trade.gov.tr">www.trade.gov.tr</a>
Ministry of Treasury and Finance	<a href="http://en.hmb.gov.tr">en.hmb.gov.tr</a>
Ministry of Environment and Urbanization	<a href="http://www.csb.gov.tr">www.csb.gov.tr</a>
Ministry of Transport and Infrastructure	<a href="http://www.uab.gov.tr">www.uab.gov.tr</a>
Ministry of Family, Labour and Social Services	<a href="http://www.ailevecalisma.gov.tr">www.ailevecalisma.gov.tr</a>
Ministry of Industry and Technology	<a href="http://www.sanayi.gov.tr">www.sanayi.gov.tr</a>
Ministry of Energy and Natural Resources	<a href="http://www.enerji.gov.tr">www.enerji.gov.tr</a>

GOVERNMENTAL INSTITUTIONS FOREIGN TRADE	
Presidency of the Republic of Türkiye Investment Office	<a href="http://www.invest.gov.tr">www.invest.gov.tr</a>
Coordination Council for the Improvement of Investment Environment in Türkiye (YOİKK)	<a href="http://www.yoikk.gov.tr">www.yoikk.gov.tr</a>
EXİMBANK (Export Credit Bank of Türkiye)	<a href="http://www.eximbank.gov.tr">www.eximbank.gov.tr</a>

BANKING AND FINANCE	
Central Bank of Republic of Türkiye	<a href="http://www.tcmb.gov.tr">www.tcmb.gov.tr</a>
Borsa İstanbul	<a href="http://www.borsaistanbul.com">www.borsaistanbul.com</a>
Banking Regulation and Supervision Agency (BDDK)	<a href="http://www.bddk.org.tr">www.bddk.org.tr</a>
Capital Markets Board of Türkiye (CMB)	<a href="http://www.cmb.gov.tr">www.cmb.gov.tr</a>
The Banks Association of Türkiye	<a href="http://www.tbb.org.tr">www.tbb.org.tr</a>
Turkish Participation Banks Association	<a href="http://www.tkbb.org.tr">www.tkbb.org.tr</a>

STATISTICS	
Turkish Statistical Institution (TURKSTAT)	<a href="http://www.tuik.gov.tr">www.tuik.gov.tr</a>

STANDARDS AND INTELLECTUAL PROPERTY RIGHTS	
Turkish Standards Institution	<a href="http://www.tse.org.tr">www.tse.org.tr</a>
Turkish Patent and Trademark Office	<a href="http://www.turkpatent.gov.tr">www.turkpatent.gov.tr</a>

SMALL AND MEDIUM ENTERPRISES	
Small and Medium Industry Development Organisation (KOSGEB)	<a href="http://www.kosgeb.gov.tr">www.kosgeb.gov.tr</a>

TAXATION	
Revenue Administration	<a href="http://www.gib.gov.tr">www.gib.gov.tr</a>

REGULATORY BOARDS	
Turkish Competition Authority	<a href="http://www.rekabet.gov.tr">www.rekabet.gov.tr</a>
Energy Market Regulatory Authority	<a href="http://www.epdk.org.tr">www.epdk.org.tr</a>
Privatization Administration	<a href="http://www.oib.gov.tr">www.oib.gov.tr</a>

BUSINESS UNIONS AND ASSOCIATIONS	
Union of Chambers and Commodity Exchanges of Türkiye (TOBB)	<a href="http://www.tobb.org.tr">www.tobb.org.tr</a>
Turkish Industry and Business Association (TUSIAD)	<a href="http://www.tusiad.org.tr">www.tusiad.org.tr</a>
Turkish Exporters Assembly (TİM)	<a href="http://www.tim.org.tr">www.tim.org.tr</a>
International Investors Association (YASED)	<a href="http://www.yased.org.tr">www.yased.org.tr</a>



BACADER, Association of Chimney Manufacturers and Builders  
www.bacader.org



ÇEDBİK, Türkiye Green Building Council  
www.cedbik.org



DOSİDER, Association of Natural Gas Appliances Industrialists and Businessmen  
www.dosider.org



ESSİAD, Aegean Refrigeration Manufacturers and Businessmen Association  
www.essiad.org.tr



GÜNDER, International Solar Energy Society - Turkish Section  
www.gunder.org.tr



ISKAV, Heating, Cooling, Air-Conditioning Research and Education Foundation  
www.iskav.org.tr



İSEDA, The Turkish Society of HVACR Training, Consulting and Research  
www.iseda.org.tr



İSİB, Turkish HVAC-R Industry Exporters Union  
www.turkishhvacrindustry.com



İSKİD, Heating Cooling Air Conditioning Manufacturers' Association  
www.iskid.org.tr



İZODER, Association of Thermal, Sound Insulation and Water Proofing Materials Suppliers and Producers  
www.izoder.org.tr



KBSB, Boilers and Pressure Vessels Manufacturers' Association  
www.kbsb.org.tr



MMO, Chamber of Mechanical Engineers  
www.mmo.org.tr



MTMD, Mechanical Constructors' Association  
www.mtmd.org.tr



POMSAD, Turkish Pump and Valve Manufacturers' Association  
www.pomsad.org.tr



SOSİAD, Association of Refrigeration Industry Businesspeople  
www.sosiad.org.tr



TMMOB, Union of Chambers of Turkish Engineers and Architects  
www.tmmob.org.tr



TTMD, Turkish Society of HVAC&Sanitary Engineers  
www.ttmd.org.tr



TürkMMMB, Association of Turkish Consulting Engineers and Architects  
www.tmmmb.org.tr



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[www.ebelediye.info](http://www.ebelediye.info)  
[www.hvac-turkey.com](http://www.hvac-turkey.com)



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