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İZMİR **METROPOLITAN** MUNICIPALITY

IZMIR **METROPOLITAN** MUNICIPALITY - **IZENERGY INC. PUBLICATION ● JUNE - JULY 2023 ● Issue : 12 ●** Free of charge

Today's Niche, Tomorrow's Business: Clean Hydrogen and Izmir's Potential

Dr. Can Can SINDIRAC - Senior Lead Engineer - ASPILSAN Energy

We Have Plenty of Energy For The World...

Alper KALAYCI - Chairman of the Board of Directors of Energy Industrialists and Business

Sustainable Transportation

Ozlem TASKIN ERTEN - Sustainable Transportation Planning Branch Manager

“Eyes that do not behold green are deprived of the pleasure of color. Forest this place in such a way that even those who do not see can understand they are surrounded by green.””

M. Atatürk

IZMIR METROPOLITAN MUNICIPALITY

Tunc SOYER

Mayor of Izmir Metropolitan Municipality

A Better World is Possible

Dear Izmir Residents,

We are facing a global problem of climate crisis which has reached more critical dimensions than ever before. Many problems that we always expected to happen "tomorrow" have become today's issues. We now inhabit a sick planet

Wildfires burning our forests, floods and earthquakes. The successive natural disasters we are experiencing are proof of this situation.

It is precisely at such a time that we launched the EU Climate Neutral and Smart Cities Mission, moderated by Izenergy. I am grateful to our stakeholders and EU city advisors that we came together in this valuable process. We also launched the Global Climate Community Izmir (GCC Izmir), where we carry out our work on the subject, in this launch program. You can access the content, projects and events produced by our community working for the future of our city and planet at kitizmir.org.

This joint wisdom movement, which is an important pillar of our resilient city vision, is the pride of Izmir.

Izmir gave us a second pride. We hosted WENERGY Clean Energy Technologies Fair organized for the first time in our city and WeCycle Environment and Recycling Technologies Fairs organized for the second time. The investments and initiatives we saw at our fair, where industry stakeholders came together around the idea of "A better world is possible", both gave hope for our future and went down in history as a message from Izmir to the world. This message was this: "Change is in our hands."

With this awareness, we organized very important panels hosted by GCC Izmir at our fairs. Our friends who could not attend these valuable events can watch all panels on GCC Izmir YouTube channel: https://www.youtube.com/ @kit- izmir/streams

The transformation has begun in Izmir. In the hope that a better urbanism, better life, a better world is possible.

I sincerely thank all of you who work for a world in harmony with our nature.

Izmir With Love!

İZENERJİ
IZMIR METROPOLITAN MUNICIPALITY

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IZENERGY INC
Chairman of The Board

Dear people of Izmir;

We are happy to bring you the 12th issue of our company's sectoral magazine, IZENERGY.

In this issue, we focus on Izmir Metropolitan Municipality's environmentally friendly projects for Izmir. IMM continues its efforts to make Izmir a greener, livable and sustainable city by taking important steps in sustainability and environmental protection.

In our issue, we continue to include all stakeholders of the city alongside our work. We endeavor to include academics working in our fields of activity, politicians developing policies in our field of activity, professional chambers, NGOs and other stakeholders and to deliver them to you.

In this issue, we include the articles of our valuable stakeholders in our voice of science and voice of the sector sections. The article titled "Today's Niche, Tomorrow's Business: Clean Hydrogen and Izmir's Potential" by Dr. Can Sındırac and Mr. Alper Kalaycı, Chairman of the Board of ENSIA. Mr. Alper Kalayci's articles titled "We Have Plenty of Energy for the World" are presented to you, our esteemed readers.

In our issues, we continue to publish IMM's Sustainable Energy and Climate Action Plan, which aims to reduce Izmir's energy consumption, promote the transition to renewable energy sources and combat climate change, the Green City Action Plan, which aims to increase the city's green areas, develop parks and gardens, and establish environmentally friendly transportation systems, the Strategy for Living in Harmony with Nature, which aims to protect Izmir's natural resources, support biodiversity and promote sustainable agricultural practices, and the Plastic Waste-Free City Action Plan, which aims to find solutions to Izmir's plastic waste problem and reduce plastic consumption.

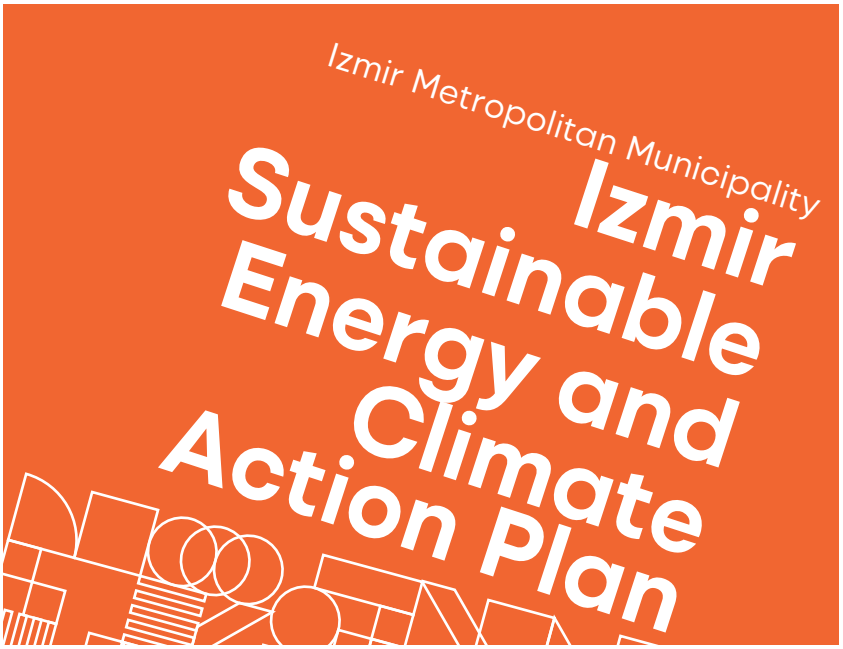
Also in this issue, the article titled "Sustainable Transportation" by Ozlem Taskin Erten who is the Sustainable Transportation Planning Branch Manager,

Three events of great importance for Izmir took place in May. The first one was the launch event of the Global Climate Community (GCC) Izmir, which was created within the scope of the Climate Neutral and Smart Cities Mission carried out under the coordination of Izenergy and includes all stakeholders of the city. The launch event, which was realized with a wide participation, is seen as an important step in the formation of Izmir's 2030 targets. Another event was the opening meeting of the District Municipalities SECAP Training and Support Program, which was organized for the first time in Türkiye under the coordination of Izenergy. These two events are described in the EU Projects section of our issue.

Another important event in May was the first Wenergy'23 Clean Energy Technologies Fair and the second Wecycle Environment and Recycling Technologies Fair. IZENERGY, IZGUNES and IZAR booths took part in the fair and GCC Izmir in-fair panels where information and experience were shared on renewable energy, energy efficiency and energy poverty are presented in this issue.

The 12th issue of our issue is comprehensive and has titles that raise our hopes for the future. We are proud to be able to convey these beautiful works to you, our esteemed readers.

Until next issue, here's to clean, sunny, bright and healthy days together with the people of Izmir. . .



It is an exact excerpt from the Sustainable Energy and Climate Action Plan (SECAP), which includes greenhouse gas reduction and adaptation actions to the effects of climate change, supported by The European Bank for Reconstruction and Development (EBRD), which is one of the works of the Izmir Metropolitan Municipality and financed by the European Union, to leave a cleaner and more livable city to future generations, such as the issue of energy and resource consumption in order to combat the climate crisis and urban sustainability of Izmir.

3.2.2. Impact Pathways

The second step in this risk assessment process was to identify and develop sector specific impact pathways (i.e.possible ways they could be affected by climate hazards) associated with the 9 CoM defined hazards. A risk ratingwas then applied against the predicted timeframe of this impact occurring. This assessment identified 33 impactpathways across the 12 sectors. In summary:

•Of these 33 impact pathways across all timeframes, 14 were identified as 'high' risk, 17 as 'moderate' risk and2 as 'low' risk against the GCoM defined risk matrix.

•Of the 12 sectors analysed, 7 are were associated with impact pathways that were identified as having a 'high'risk rating. The other 5 sectors contain impact pathways identified as having 'medium' and 'low' risk ratingsonly.

• A single impact pathway associated with 'current day' and was assigned a risk rating of 'moderate'. Specifically, this impact was in relation to the exacerbation of extreme event impacts by the occurrence of Earthquakes.

• Fuel build up resulting in forest fires,

•Loss and damage to livestock, forestry land and crops from extreme weather events

•Ecosystem degradation, habitat and species loss.

•Illness, injury or loss of live.

•Pressure on civil protection and emergency agencies

• In the medium-term (2041 – 2070), 1 impact pathway was assigned a 'low' risk score and 7 as 'moderate',with no impacts being given a risk rating of 'high'.

• Two impact pathways were assigned to the long-term timeframe (2071-2100), both of which were assigneda risk rating of 'high' and related to sea level rise.

Agriculture and Forestry

Three 'high' rated risks were identified for agriculture & forestry sector, in relation to flooding, sea level rise andforest fires. Anticipated to be influenced by climate change in the short-term, both flooding and forest fires have thepotential have a catastrophic impact on agricultural crops, livestock and natural forest – damaging yields, causingfatalities amongst the animals and destroying forest cover. In the longer-term, due to Izmir's coastal location, sealevel rise will begin to inundate low-lying agricultural land, salinizing groundwater sources which Izmir's industryrely upon.

Table 16: High rated risk impact pathways for the Agriculture & Forestry sector.

I.D	Sector	Primary Hazard(s)	Impact Pathway	Time frame of Occurence	Risk Rating
IM18	Agriculture and Forestry	Flooding	River and surface water flooding could result in the damage too, and the inundation of low-lying agricultural land causing the destruction and loss of crops and livestock.	Short-term	High
IM19	Agriculture and Forestry	Sea Level Rise	Sea level rise could result in the damage too, and the inundation of low-lying agricultural land causing the destruction and loss of crops and livestock, alongside the salination of ground water sources used for irrigation.	Long-term	High
IM20	Agriculture and Forestry	Forest Fires	Forest fires damaging and destroying agricultural and forestry land alongside livestock.	Short-term	High

Building

Two impact pathways were rated as 'high' for buildings, with a focus on damage from landslides and flooding.Known as hazards that have severely impacted buildings in the past, albeit localised, a rise in extreme precipitationevents as well as longer dry spells due to climate change result in these hazards being anticipated to become moreprominent in the short-term.

Table 17: High rated risk impact pathways for the Building sector.

I.D	Sector	Primary Hazard(s)	Impact Pathway	Timeframe of Occurrence	Risk Rating
IM2	Building	Flooding	Surface water and riverine flooding events causing damage to / inundation of buildings within the municipality.	Short-term	High
IM3	Building High	Landslides	Land-slides result in the damage and loss of buildings within the Municipality.	Short-term	High

Civil Protection and Emergency

The single impact pathway within the sector of civil protection and emergency that was assigned a risk rating of high' is in relation to the potential strain on civil protection and emergency agencies from climate hazards. With Izmir being exposed to numerous cross-cutting hazards, all of which are predicted to build in intensity and frequency over the short to longer term timeframes due to climate change, this impact will begin to be experienced in the short-term. in some cases with fatal consequences.

Table 18: High rated risk impact pathways for the Civil Protection and Emergency sector.

ID	Sector	Primary Hazard(s)	Impact Pathway	Timeframe of Occurrence	Risk Rating
IM27	Civil Protection & Emergency	Extreme Heat Extreme Precipitation Floods Storms Landslides Forest Fires	The more frequent occurrence of extreme events will result in the Increased deployments and pressure on civil protection and emergency agencies.	Short-term	High

Environment & Biodiversity

Of the three impact pathways associated with Environment & Biodiversity sector, two were allocated a risk rating of 'high'. Both of these impact pathways demonstrate either anticipated ecosystem degradation or habitat and biodiversity loss due extreme events and their cascading impacts - whether drought forest fires of extreme temperatures. Climate change projections demonstrate that these climate hazards will become more prominent in the short term.

Table 19: High rated risk impact pathways for the Environment & biodiversity sector.

I.D	Sector	Primary Hazard(s)	Impact Pathway	Timeframe of Occurrence	Risk Rating
IM2	Environment & Biodiversity	Extreme Heat Droughts Forest Fires	Extreme climate events damaging and /or destroying the natural environment resulting in ecosystem degradation, habitat and biodiversity loss.	Short-term	High
IM3	Environment & Biodiversity	Droughts	Increased periods of drought will reduce the water levels in rivers and other fresh-water bodies and Gulf of Izmir, reducing the natural environments capacity to manage wastewater and run-off pollution, causing habitat and species loss and eutrophication.	Short-term	High

Health

One impact pathway for the health sector was allocated a risk rating of 'high'. This impact pathway is in relation to, illness or loss of human life as a result of a climatic event. With climate change expected to increase the frequency, magnitude and intensity of climate events, it is anticipated that a greater risk to human health and life will be posed over the short-term.

Table 20: High rated risk impact pathways for the Health sector

I.D	Sector	Primary Hazard(s)	Impact Pathway	Timeframe of Occurrence	Risk Rating
IM24	Health	Extreme Heat	Extreme heating exacer bating the urban heat island effect, resulting in an increase in heat related illness, disease and mortalities.	Short-term	High

Land-Use Planning

Of the five impact pathways identified for land-use planning, three were allocated a risk rating of high'. Land-use planning in Izmir has the potential to be impacted by and also exacerbate all high-risk hazards identified the current day hazard assessment. In the short-term, floods, forest fires and droughts can damage, inundated and destroy urban and industrial / agricultural lands, with climate projections demonstrating a rise in intensity, magnitude and frequency of the climate hazards that cause these impacts. In the longer-terms, due to Izmir's predominantly low lying, coastal nature, large areas of land are exposed too; climate change projections for sea level rise will mean large areas are at a high risk from being inundated.

Table 21: High rated impact pathways for the Lans-use Planning sector

I.D	Sector	Primary Hazard(s)	Impact Pathway	Timeframe of Occurrence	Risk Rating
IM13	Land Use Planning	Floods	Surface/river flooding causing the inundation of urban or industrial land.	Short-term	High
IM14	Land Use Planning	Sea Level Rise	Sea Level Rise causing the inundation of urban or industrial land.	Long-term	High
IM15	Land Use Planning	Forest Fires Extreme Heat Drought	Rising temperatures and prolonged periods of drought wildry out landscapes, causing fuel build up that result in the occurrence of forest / wildfires.	Short-term	High

Water

This assessment revealed two impact pathways identified as having a 'high' risk for Izmir, the prominent of these being a risk associated with an increase in water scarcity, decrease in water quality and a reduction in ground water recharge rates due to extreme heat conditions and prolonged periods of drought. This could result in numerous cross-cutting impacts for key water-dependent industries and environments, having a detrimental impact on human health. The second in relation to Izmir's water management capacity and infrastructure, with an expected increase in the magnitude of extreme precipitation events and the associated flooding increase maintenance costs across the network.

Table 22: High rated impact pathways for the Water sector

I.D	Sector	Primary Hazard(s)	Impact Pathway	Timeframe of Occurrence	Risk Rating
IM8	Water	Extreme Heat Drought	Rising temperatures and drought periods increasing water scarcity, decreasing water quality and reducing ground water recharge rates.	Short-term	High
IM9	Water	Extreme Precipitation Floods Storms	Extreme weather events increasing the demand on, causing damage too and peaking the capacity of the wastewater and stormwater management infrastructure resulting in flooding and increased maintenance costs.	Short-term	High

Other Sectors

It is important to acknowledge that all other impact pathways and potential opportunities assessed during this RVA, including those for the remaining sectors: Energy, Tourism, Transport and Waste can be found in in the associated CoM Reporting template excel workbook. Only sectors that contained examples of 'high' risk impact pathways has been incorporated within the body of this report.

3.3. Vulnerabilities

In order to gain a high-level understanding of Izmir's vulnerabilities, descriptions were developed and split into socio-economic and physical and environmental. In total thirteen vulnerability descriptions were developed, with each one being allocated with indicators to help inform and monitor how these evolve with time. The full matrix for vulnerability descriptions can be found in associated CoM Reporting template excel workbook.

Table 23: Socio-Economic vulnerability descriptions.

I.D	Vulnerability Descriptions
SE-A	Izmir's major tourist hubs and large areas of highly productive agricultural land, and other key industries, arelocated in Izmir's low lying deltaic plain and wetlands. Areas include the Gediz Basin and the Kucuk Menderes Basin.
SE-B	Many of Izmir's key industries (agricultural, automotive, chemical, food and tourism) rely heavily on water availability and climatic conditions. Izmir has over 300 companies operating in the chemical sector and its food industry exports 11% of Türkiye's food and beverage (e.g. pine nuts). Employment and local GDP is heavily influenced by these industries.
SE-C	Many of Izmir's industries rely on local, regional and international supply chains and trade routes, which can be disrupted to climatic events
SE-D	Izmir's population demographic consists of a number of vulnerable communities, such as; the elderly, informal settlement residents, migrants, homeless, infirm.
SE-E	SE-E Izmir has a high and rising population density with roughly 3m residents living in dense urban environments

Table 24: Physical & Environmental Vulnerability descriptions.

I.D	Vulnerability Descriptions
PE-A	Izmir is located on the coast of the Aegean, with 60km of low-lying (within 10m of sea level) coastline and riverine flood plains, which are exposed to riverine and coastal flooding. This includes areas such as the Gediz Basin and the Kucuk Menderes Basin.
PE-B	Izmir's topographic characteristics include steeply sloped terrain which borders the low-lying coastal and deltaic plains, exposed to landslides and flash flooding.
PE-C	The city of Izmir is surrounded by significant natural land cover, primarily made up for forests and grasslands / meadows which are under pressure for urbanization.
PE-D	Izmir's urban form predominantly consists of artificial, impermeable urban surfaces with a limited stormwater water management capacity
PE-E	Izmir contains multiple informal settlements, predominantly built in low-lying areas to a poor standard with minimal consideration for accessibility and limited infrastructure support (energy, water, sewage) which, if present, are connected illegally
PE-F	Izmir's current building stock has limited consideration for earthquake design standards
PE-G	Fresh water and marine environments are exposed to high levels of water pollution due to the proximity and activity of existing land-use practices such as dense urban areas and key industry (e.g. agriculture, port, tourism), being located in low-lying coastal areas and deltaic planes
PE-H	Izmir's Mediterranean climate with mild winters and hot dry summers promotes water scarcity issues. It's location on the coast also exposes the ground-water sources (e.g. aquifers) to saline intrusion.

For the first time in Türkiye, the European Bank for Reconstruction and Development (EBRD) provided a grant of €300,000 to Izmir for the preparation of a "Green City Action Plan". All stakeholders of the city were involved in the preparation of the Green City Action Plan. Excerpted verbatim from the Izmir Green City Action Plan, which was prepared with the participation of more than 100 participants from Izmir Metropolitan Municipality units, public institutions, non-governmental organizations, universities and professional chambers and approved by the parliament on December 16, 2020;

T1.7: More sustainable urban mobility: mass transit and local mobility

Strategic Plan Objectives	**2.1** Public Transport Will Be Affordable, Energy Efficient, Fair, Comfortable, Available to and Accessible **2.2** A Sustainable Transport System Will Be Created With a Harmonious Interaction Between Different Modes of Transport, Offering Different Options
Description	Develop and enhance the Municipalities urban mobility to enable the implementation of more diverse modes of low carbon transportation alternatives whilst reducing traffic congestions, by: <u>Mass transit schemes</u> By 2030, the rail system network will total 664.1km including tramway, metro and IZBAN line • It is targeted to complete 312.1km rail system network. The line between F. Altay and Narlidere will be finalized in 2021. Buca metro line has been planned and will be finalized by 2025. The tram line to Cigli is planned to be finalized in 2021. •13.3km metro line and 11 underground stations •Introduce more park-and-ride systems in-line with the transportation master plan. Park-and-ride systems are located in 8 main transportation hubs, 21 transportation hubs and 23 transfer points totalling 52 points. •Additional 8 ferry and passenger ships will be purchased. • Implementation of park-and-ride systems to integrate private car using with public transportation system <u>Local mobility schemes</u> •Assess feasibility of scaling up existing local mobility options E.g. scooter schemes and sharebike Incentives •Pedestrianisation of central city streets. 145 km length of street pedestrianization will be implemented in some of the districts such as Narlİdere, Balcova, Konak, Bornova, Buca, Karsıyaka, Cigli until 2030

T1.7: More sustainable urban mobility: Public transport and local mobility (Continued)

	•Improve and expand the cycling infrastructure e.g. cycle lanes. The length of cycling route will be increased from 67km to 402km until 2030.
Rationale	As Izmir has grown, so has the number of private vehicles on the roads from 477,773 in 2008 to 765,657 in 2018. This has led to reduced air quality and congestions. This action will help reduce dependence of fossil fuel private vehicles by offering a range of local and longer distance, low carbon, mobility options. Damage and disruption to transport infrastructure is also a key factor in amplifying the impact of a climate related event, especially in densely populated cities such as Izmir. By diversifying and improving the transport infrastructure within the City it will create an overarching transport infrastructure that can provide more effective protection and support recovery
Steps for Implementati	Mass-transit schemes In line with the Transportation Master Plan of Izmir 2030, this action is already being progressed including: 1.Procurement of construction works of Buca metro 2.Construction of metro line including civil and E&M works 3.Procurement of metro vehicles 4.Handing over to Izmir Metro Inc. for operation 5.Development plans to be updated considering planned main transportations hubs, transportation hubs,transfer points and P&R locations 6.Metro station designs to take into account planned P&R areas 7.Construction and operation of park-and-ride systems Local mobility schemes 1.Feasibility studies to be prepared for scaling up existing scooter schemes and share-bike incentives. 2.Development plans to be updated considering planned pedestrianization projects 3.Preparation of hardscaping and landscaping design of pedestrianization projects 4.Construction of pedestrianization projects 5.Development plans to be updated considering planned cycling routes 6.Preparation of cycling infrastructure design 7.Construction of cycling infrastructure 8.Undertake and implement awareness raising campaigns on road safety.
Type of action	Capital project
Environmental values positively affected	
Climate Change risks and / or vulnerabilities addressed	**Risks:** IM4

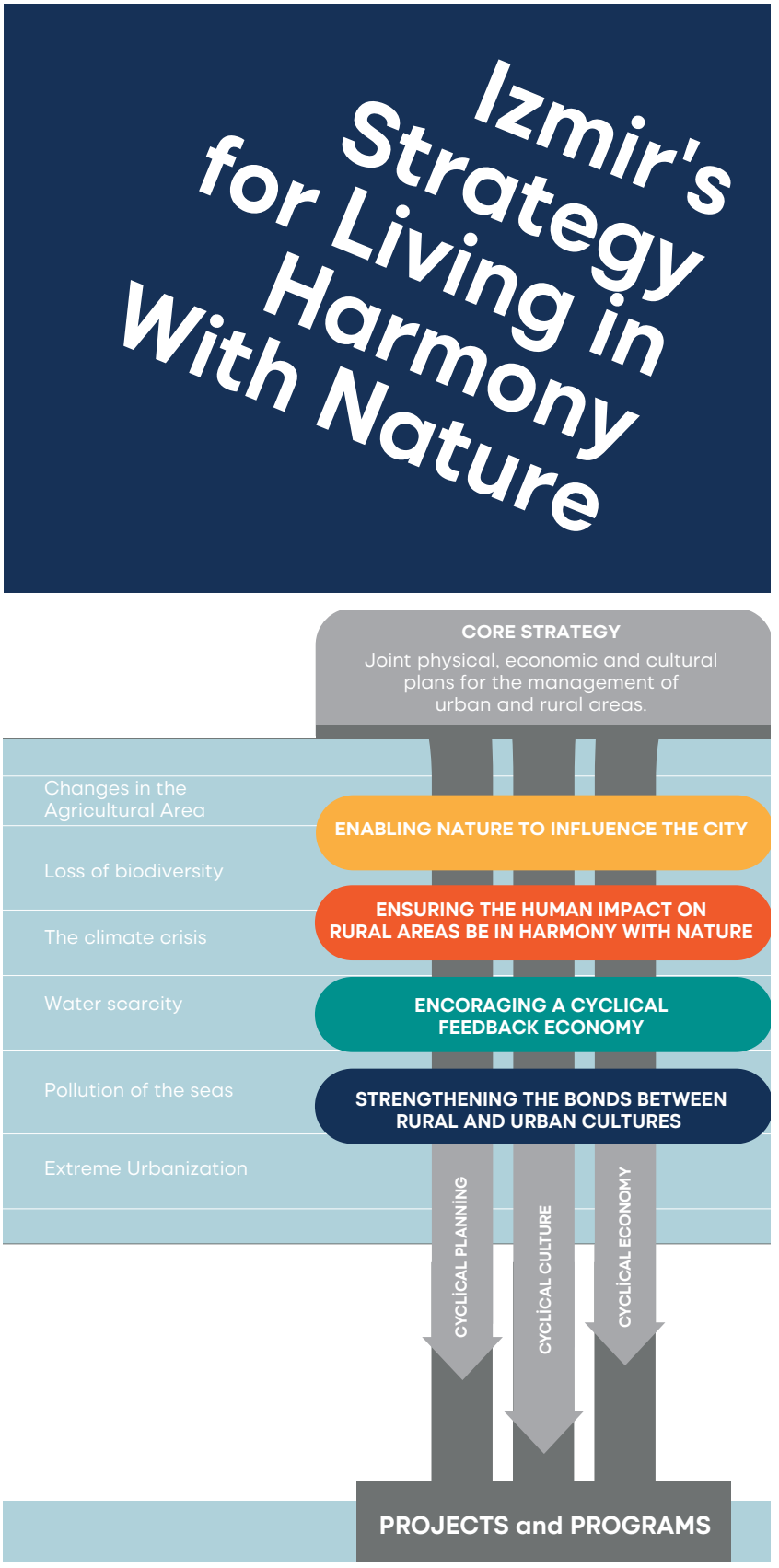
T1.7: More sustainable urban mobility: Public transport and local mobility (Continued)

Potential Emission Savingson	**Mass transit schemes:** 805.216 tCO2e reduction in 2030. 12% reduction targeted of all transportation except logistic emissions and additional 5% for intercity speed train investments. **Local mobility schemes:** 410.473 tCO2e reduction in 2030. 5% reduction targeted for cycling and 5% for pedestrian of all transportation except logistic emissions	
Plan for Delivery	**Action owner**	IMM
	Stakeholders	ESHOT IZBAN Izmir Metro Inc. TCDD 2nd Regional Directorate of Highways. Professional Chambers District Municipalities Headman's and Citizens
	Financing options	Municipal budget, IFIs, Ilbank, PPP, private operators
	Revenue/savings Opportunities	Greater uptake of public transportation will result in higher revenues for the city.
	Timeline	2021-2030
Impact Measures	•All air quality indicators •Concentration of heavy metals in soils (zinc, cadmium) • Annual CO_2 equivalent emissions per capita •Annual CO_2 emissions per unit of GDP •Transport modal share in total trips (Public Transport) • Transport modal share in total trips (Walking) •Transport modal share in total trips (Bicycle) •Kilometres of road dedicated exclusively to public transit per 100,000 population •Kilometres bicycle path per 100,000 population •Share of population having access to public transport within 15 min by foot • Interruption of public transport systems in case of disaster •Efficiency of transport emergency systems in case of disaster	

T1.7: More sustainable urban mobility: Public transport and local mobility (Continued)

Estimated cost	**CAPEX:** Pedestrianisation: €172,405,000 for 145km of 15m width pavement, Cycling Infrastructure: €69,498,000 for 351km 5m wide infrastructure. **OPEX: N/A** **Design/development costs: N/A**
Estimated benefits	**Health impacts:** Public health – more active lifestyles and reduced pollution. Public safety - particularly for more vulnerable people such as children and elderly **Economic Development:** Increased economic efficiency; economic growth; employment creation; avoided damages **Social Inclusion:** Access to basic services; social equity **Environment:** Reduced pollution, mitigation of GHG emissions.
Existing Work Leveraged:	Izmir SEAP 2016
1/25,000 scaled IMM Environmental	**1.** Izmir Bay **2.** Central City **3.** Urban / Rural Periphery

Karşıyaka/ İzmir



Excerpted from Izmir's Strategy for Living in Harmony with Nature

7. Izmir's Strategy for Living in Harmony with Nature

The culture of living in harmony with nature requires a transition strategy in all systems of the city. This transition involves a long period of constructive effort within the city. To facilitate this transition, physical plans and thematic strategies for the experimentation and dissemination of new concepts need to be carried out holistically to translate the aforementioned strategies into projects and tactical bottom-up implementation.

The action plan was developed on the basis of the city's biogeography and in line with priority integration targets. In doing so, strategic, project and other implementations carried out in the last 5 years will be integrated with those to be implemented in the future. The action plan consists of 5 levels of spatial, cultural and economic integration and includes examples of 25 innovative projects and programs that are leading the way in testing these strategic objectives. (Figure 7.1) Beyond these examples, Izmir Metropolitan Municipality is implementing a wide range of programs and projects, which are detailed in the GCAP and SECAP reports.

Traditional olive-growing in Izmir is a reservoir of ancient production practices extending back in an unbroken line for centuries.

The Izmir Nature Atlas Project

LAYERS 1 2 3 4

Integrational axes:

Enabling nature to influence the city

✓ Ensuring the human impact on rural areas be in harmony with nature

Encouraging a cyclical-feedback economy

✓ Strengthening the bonds between rural and urban cultures

Explanation:

The aim of the nature atlas is to research Izmir's biodiversity. In line with this, research will be carried out on various groups of mammals, birds, reptiles, amphibians, fish, and plants following methodologies established by relevant experts. All of the data thus obtained will be transferred to 5x5 km squares to cover the entire area inside Izmir's boundaries.

At the conclusion of the study, Izmir's biological assets will be compressed and mapped on 5x5 km squares and, at the same time, a GPS digital database will be created. This willa provide an invaluable resource for ensuring that every activity to be carried out within Izmir's borders, whether by public or private sector organisations, will be able to be plan ned and executed in a way that conserves the area's biological diversity.

Izmir is one of the few cities in Turkey where the Mediterranean seagull breeds.

One of the trees to be cultivated in Izmir parks under the Natural Green Project is the acorn oak.]

The Natural Green Project

LAYERS 2 3

Integrational axes:

✓ Enabling nature to influence the city

✓ Ensuring the human impact on rural areas be in harmony with nature Encouraging a cyclical-feedback economy. Strengthening the bonds between rural and urban cultures

Explanation:

In order for the city to regain its natural vegetation cover in its parks, local plant species will be used in inner-city practices. The aim is to propagate an approach to landscaping throughout the city that utilises plants with reduced water consumption requirements and are highly adaptable. Thanks to this project, there will be a full transition to the use of native plants in Izmir's parks and, thus, all the ecological assets of inner-city parks will be increased and water consumption reduced.

Izmir joined the "Plastic Waste-Free Cities Network" initiated by WWF worldwide and involving 36 countries in December 2019 with the signing of the declaration of intent by IMM Mayor Mr. Tunc Soyer. Thus, Izmir became the second city in the Mediterranean after Nice to commit to being a plastic waste-free city by 2030. In this direction, we are presenting you, our esteemed readers, the "Plastic Waste-Free City Action Plan" (excerpted verbatim) prepared as a result of the pilot applications initiated in Cesme.

1.2.3 Investigation of the feasibility of unpackaged drinking water supply and refill systems	
Strategic Plan Objectives	**5.1** Sustainable Waste Management and Recycling Mechanisms will be Improved.
Definition	Conducting feasibility studies to develop public drinking water supply and refill networks to prevent environmental pollution caused by plastic bottles, and to expand access to these water sources throughout Izmir
Time Frame	2021-2026
Stakeholders	IMM IZSU Civil Society Organizations Universities

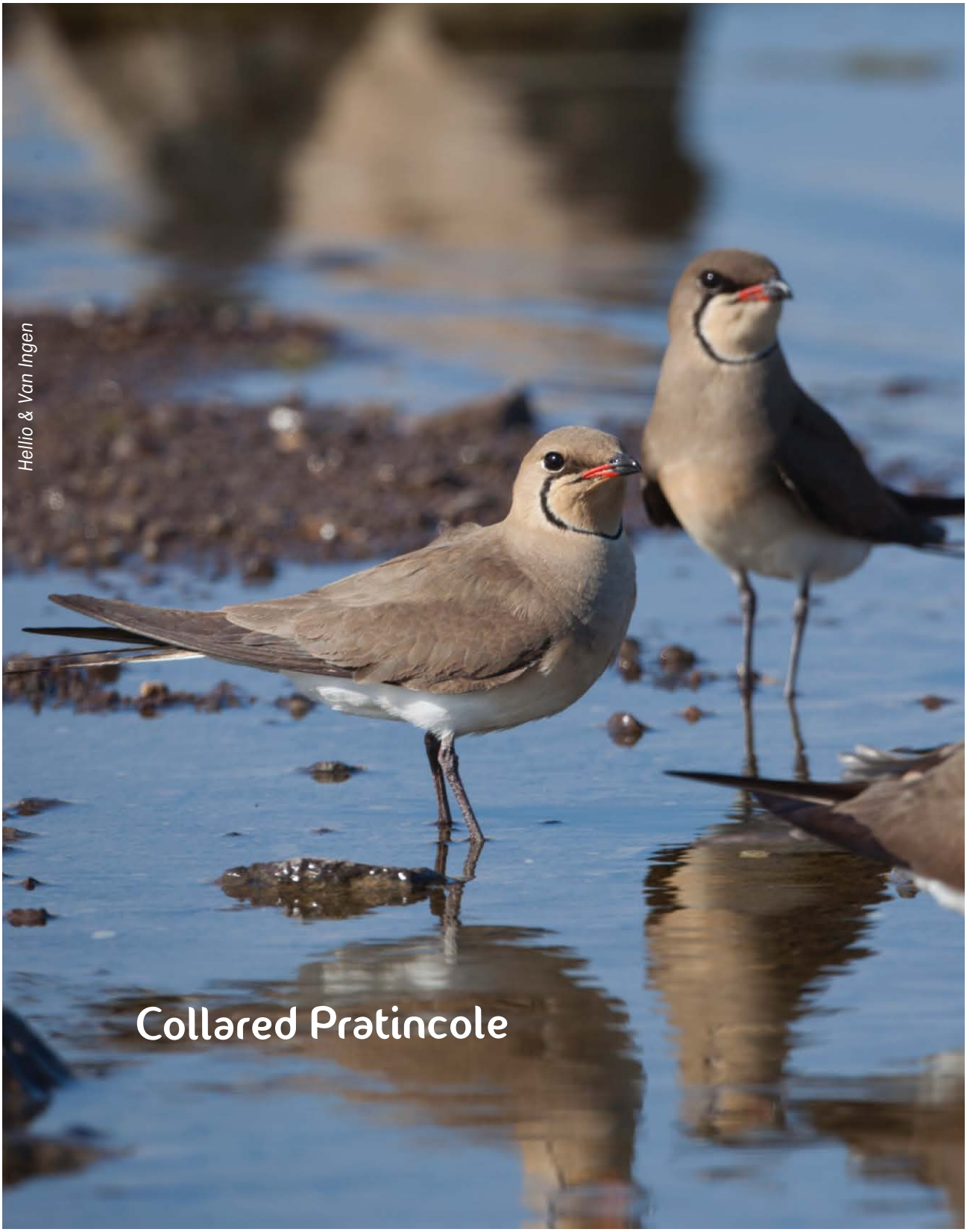
1.2.4 Incentives to Increase the Availability and Accessibility of Alternative Materials and/or Products to Replace Single-use Plastic Products	
Strategic Plan Objectives	**5.1** Sustainable Waste Management and Recycling Mechanisms will be Improved
Definition	Preparation and design of incentives, research projects, competitions, training and event opportunities in order to develop alternative materials or products that can be used as substitutes for plastic products in the relevant units of IMM and its subsidiary companies (e.g. vocational factories) and to increase their awareness, prevalence and accessibility.
Time Frame	2021-2030
Stakeholders	IMM Civil Society Organizations Universities Private Sector

Theme 2: Actions to Strengthen Reuse and Recycling Mechanisms

2.1 Project Development to Support Reuse Opportunities

2.1.1 Reuse Center Project Research	
Strategic Plan Objectives	**5.1** Sustainable Waste Management and Recycling Mechanisms will be Improved
Definition	To examine the consent of the Metropolitan Municipality in order to establish a center where the products donated by the citizens, especially those containing plastic, whose service life has not expired but which are not wanted to be used by the owner (e.g. for toys that have passed the age eligibility), which need repair/maintenance, are received, repair/maintenance and hygiene are provided and the opportunity to be reused is provided.
Time Frame	2021-2025
Stakeholders	IMM

2.1.2 Project Research on Refillable Product Sales in Halkin Bakkali (People's Grocery Store)	
Strategic Plan Objectives	**5.1** Sustainable Waste Management and Recycling Mechanisms will be Improved
Definition	To develop a project to ensure that appropriate products can be sold in a refillable form in the public grocery store where agricultural development and production cooperatives can market their products in order to support local products and producers
Time Frame	2021-2025
Stakeholders	IMM Subsidiary Companies (IMM Grand Plaza Gıda Otelcilik ve Turizm İsletmeleri Inc.)



Collared Pratincole

The collared pratincole is a shorebird, similar to the tern, that lives in open areas and is adapted to stay in the air. It is distinguished by its graceful and swift flight, long and pointed wings, deeply forked tail and short bill. The species is found in wetlands in Izmir, mainly in the Gediz Delta.

Common Misconceptions

✗ There is no need for thermal insulation in hot regions.

✔ The energy spent for cooling in residences and workplaces is more than that spent for heating. Therefore, the need for thermal insulation is higher in hot climate zones.

✗ Electronic products do not waste energy when they are off.

✔ Electronic devices such as televisions, telephone chargers and computers continue to consume electricity even when they are not in use. Therefore, they should be unplugged when not in use.

✗ Hand washing saves money when the amount of dishes is small.

✔ Washing the same amount of dishes by hand consumes about 8 times more water.

✗ Solar panels do not generate electricity on short and cloudy days.

✔ Electricity generation in solar panels is provided by UV heat. Even if the weather is rainy or cloudy, energy production will continue in the panels as these temperatures will reach the earth.

✗ Turning the boiler off when the environment gets hot and turning it back on when needed saves energy.

✔ Combi boilers consume high energy in the first moments. For this reason, instead of turning it on and off continuously, decreasing and increasing its degree in line with the need will reduce energy consumption. The same is true for water heaters.

✗ Geothermal power plants harm agriculture and trees.

✔ Any renewable energy activity carried out in accordance with Environmental Impact Assessment processes does not harm the environment. Geothermal energy also increases agricultural activities, especially in greenhouse cultivation.

✗ Wind turbines prevent electronic devices from working.

✔ The older generation of wind turbines had metal blades and could cause electromagnetic interference, but this problem has been minimized with the synthetic materials used in the new generation blades.[1]

SOURCE: [1]https://yesilekonomi.com/ruzgar-turbinleri-gurultucu-guvenilmez-pahali-makinelermidir/

Today's Niche, Tomorrow's Business: Clean Hydrogen and Izmir's Potential

Dr. Can SINDIRAC

Senior Lead Engineer - ASPILSAN Energy

As the world strives for a sustainable future, the transition to green energy sources is becoming increasingly important. Considering that 75% of all CO_2 emissions in the world are caused by the energy sector, every step towards decarbonizing the energy sector is valuable and essential. Especially in the last decade, with the increase in sensitivity to environmental and climate issues, and the importance of the environmental impact of energy as well as its capacity, the European Union has set the goal of having net-zero emissions as a continent by 2050. Türiye's becoming a party to the Paris Agreement and announcing its 2053 carbon neutrality target has been a turning point for many sectors in our country, especially the energy sector. Türkiye, with its geographical advantages such as abundant sunlight and wind, has enormous potential for green energy and decarbonization. Izmir in particular, the capital of green energy, can also be the capital of clean hydrogen projects in our country. Türkiye's strategic location at the crossroads of Europe, Asia and the Middle East positions it as a major player in the global energy landscape. The country's commitment to renewable energy and decarbonization and its broader sustainability goals are in line with international efforts to combat climate change. Focusing on Izmir, located on Türkiye's Aegean coast, we find a region blessed with abundant solar, wind and geothermal resources that provide fertile ground for green energy firms. Izmir's commitment to sustainability goes beyond just clean energy production. The city has launched extensive clean energy transition projects aimed at transforming several sectors, including transportation and infrastructure. All of the local government's subsidiary institutions, notably Izenergy, have been set up for this purpose. By adopting a holistic approach to sustainable development, Izmir is setting an example for other cities seeking to make a meaningful impact in the fight against climate change. Founded 42 years ago with the donations of our citizens from Kayseri, ASPILSAN Enerji, one of the distinguished companies of the Turkish Armed Forces Reinforcement Foundation, continues its work in Teknopark Istanbul in the hydrogen and fuel cell unit it opened in 2018, and it is no coincidence that many of its projects are carried out in the capital of clean energy.

What is Green Hydrogen?

Green hydrogen, often referred to as renewable hydrogen or sustainable hydrogen, is a key element in the transition to a sustainable and decarbonized energy system. It is produced by electrolysis using renewable energy sources such as solar and wind power. Green hydrogen holds great promise as a clean and versatile energy carrier with the potential to replace fossil fuels in various sectors by significantly reducing greenhouse gas emissions. Green hydrogen. is produced through electrolysis, a process that involves the splitting of water molecules (H_2O) into hydrogen (H_2) and oxygen (O_2) using an electrolyzer. The electrolyzer requires electricity derived from renewable energy. The resulting hydrogen is then stored, transported and used as a clean energy carrier. What's more, it is possible to use this hydrogen in many sectors. We can use hydrogen, which is as functional as a Swiss Army knife, in many areas such as energy storage, iron and steel, transportation, heating, refining, ammonia production, and mixing with natural gas. With the effective use of renewable resources, Turkey can obtain both the hydrogen it will use in these sectors and the hydrogen it can sell as an energy importer.

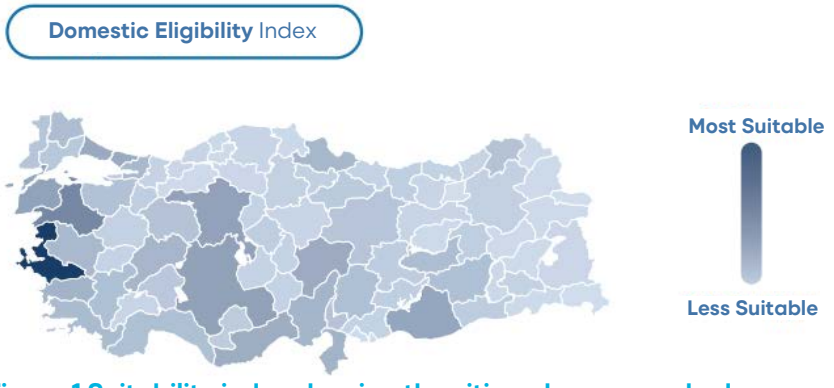


Figure 1 Suitability index showing the cities where green hydrogen is most suitable to be produced for domestic use.[1]

The Importance of Izmir

According to the report "Priority Areas for Türkiye's National Hydrogen Strategy" published by SHURA Energy Transition Center, Türkiye can overcome the high cost of coal and natural gas with its hydrogen potential. According to the report, there is a potential of 1.6 million tons of green hydrogen at a level of 4.6 million tons of oil equivalent in the manufacturing, transportation, natural gas and residential sectors, which consume fossil fuels most intensively in Türkiye and approximately 5% of Türkiye's total final energy consumption in 2018 can be replaced with green hydrogen. In another report published by SHURA Energy Transformation Center, "Technical and Economic Assessment of Türkiye's Green Hydrogen Production and Export Potential", an analysis of the suitability of hydrogen to be used domestically according to cities was conducted and Izmir ranked first. In the same report, Istanbul and Izmir ranked first in terms of domestic demand for green hydrogen. Izmir will be the key city for Türkiye to achieve the targets in the "National Hydrogen Roadmap", i.e. to increase the installed capacity of the electrolyzer to 2 GW in 2030, 5 GW in 2035 and 70 GW in 2053.

Our Projects in Izmir

For all these above reasons, it is inevitable that both producer and consumer companies in the green hydrogen ecosystem will cluster in Izmir.

Once a large-scale hydrogen transformation is achieved, new jobs will be needed to work in these companies. In this regard, again befitting Izmir, Türkiye's first clean hydrogen solutions and innovation ideathon event, in which I participated as a mentor, was hosted by Yaşar University under the name Best for Hydrogen as part of the BEST For Energy project, a program supported by Izmir Development Agency and ENSIA. It was a work that raised awareness for both students and the media. I observed that many university students gained awareness after that event.

As ASPILSAN Energy, we will carry out the "Green Hydrogen Production Energized by Innovative Small Scale Wind Turbine" project implemented within the scope of Izmir Development Agency's "Green and Blue Transformation Program", which we applied together with XGEN company. We will carry out this project as a small pilot demonstration project at Izmir Institute of Technology (IZTECH), one of the most distinguished universities of our country. Thanks to this pilot plant, which will be operational at the end of this year, both hydrogen awareness will be created among the students here and green hydrogen will be produced from a domestic electrolyzer in a campus area for the first time in Türkiye.

As the hydrogen unit of ASPILSAN Energy Another project we will realize in Izmir is 4D HYDROGEN, which we received from Eurogia, an international fund that supports only clean energy and decarbonization projects. This project consists of 5 countries and 7 partners and we are coordinating it. The main goal of the project is the production of green ammonia, which we will obtain from a domestic electrolyzer that we will install at the Aliaga plant of our Turkish partner SOCAR R&D. Ammonia, like green hydrogen, is an important energy carrier and, like hydrogen, is a resource that we can trade as a country. The fact that green ammonia will be among the top 10 most important innovative technologies in the world in 2022, published annually by the World Economic Forum, is one of the best examples of the added value of the project.

As ASPILSAN Energy, we will continue to work for the future of the country with all our strength by increasing our cooperation with all stakeholders in the capital of green energy and increasing our projects here.

SOURCE: [1]SHURA Energy Transition Center. "Techno-economic study of Türkiye's production and export potential for green hydrogen", 2021, Istanbul.

We Have Plenty of Energy for the World...

Alper KALAYCI

Chairman of the Board of Directors of Energy Industrialists and Business People Association (ENSIA)

Three years after the pandemic and the energy-focused geopolitical tensions in its aftermath have taught the world that countries' possession of energy resources is a real "survival issue".

It is of utmost importance that the energy produced is renewable, clean and sustainable. Aside from energy production, in today's world, it is becoming increasingly difficult for a production that does not respect people, the environment and nature to take its place in the global competitive environment.

In addition, it is critical that the energy you produce is domestic and produced with domestic equipment.

Taking part in domestic and competitive production in every link of the value chain formed by all sub-components of the energy sector is at least as important as clean energy.

The reason for this introduction is this:

While Izmir was known as the "capital of wind energy" for many years, it is now defined as the "capital of clean energy."

With its main and sub-industry investments, human resources and technological know-how, Izmir is a city that deserves this title.

Izmir Metropolitan Municipality, the most important local authority of the city, has been giving importance with a remarkable acceleration in recent years, which is valuable for clean energy professionals like us.

Of course, it is no coincidence that IZENERGY, which has shown its interest in the energy sector only in its commercial title since its establishment in the 1990s, has gained its original function and the momentum our city has experienced in this field has increased.

IZENERGY, which we enjoy being a Corporate Member of ENSIA and represented in our Board of Directors, continues to be one of the driving forces of Izmir's clean energy journey.

The existence of very strong investors, especially in Izmir, and a strong sub-industry supporting them are among the comparative advantages of our country. Our only shortcoming stems from the problems in the investment climate in our country.

The high volatility of exchange rates in the last year, the instability in financing costs and the fact that liquidity windows are not sufficiently open stand out as areas open to improvement.

Unless our country's dependence on imported energy sources is reduced, we will continue to be on the edge, so to speak. If it were not for the investments made in renewable and clean energy sources in the last fifteen years, it would be possible to say that we would be consuming "at least twice as expensive" electricity today.

We never underestimate the path and journey we have taken, but we also know that we are at the beginning. If we had improved our investment climate with a few small steps, we could have increased our installed capacity of wind energy from 12,000 megawatts to at least 20,000 MW and our installed capacity of solar energy from 8,000 MW to at least 20,000 MW.

At this point, our suggestion and expectation is to fully open the way for all individual and corporate investments, especially in wind and solar energy, where we have reached the highest installed capacity among our renewable energy resources...

Let our people and companies produce and consume their own energy. Let them sell the surplus energy to the state at very reasonable prices. We are talking about a system whose examples are seen in almost all countries of the world and whose success has been proven.

Türkiye, with the potential it has only in wind and solar energy can cover the energy of at least 4 Türkiye. We have more than enough energy for ourselves and the world.

If we succeed in commissioning at least 1,500 MW of installed capacity in wind and solar energy each year, we will be able to achieve a visible improvement in the energy costs of both our citizens and industrialists within a few years.

As ENSIA, it is our responsibility as a non-governmental organization to tell these truths...

Sustainable Transportation

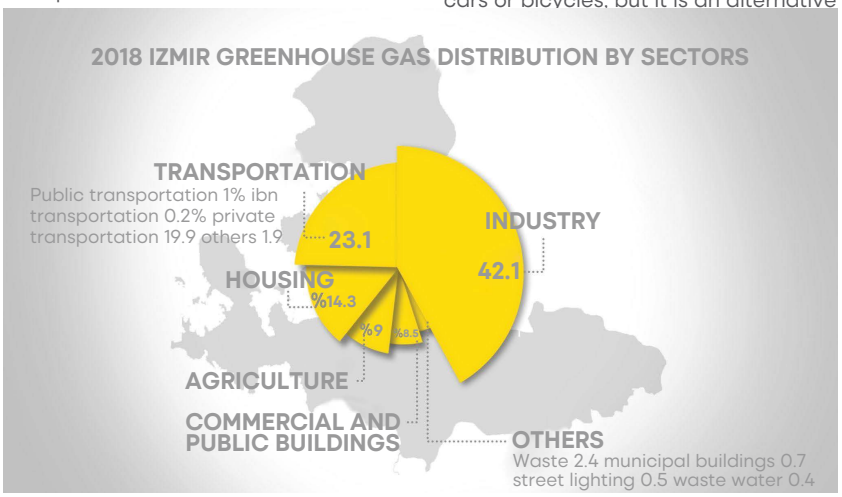
Ozlem TASKIN ERTEN

Sustainable Transportation Planning Branch Manager

We are facing a major threat to our planet. The climate crisis is causing extreme heat, drought, floods, fires and earthquakes. Rapid population growth, urban sprawl, pollution, automobile addiction, industrial agriculture, growth-oriented economy can be listed as the main factors affecting climate change. The Covid 19 pandemic, which started in 2020 and affected the whole world, worsened our situation. The increase in the use of private cars, decreasing use of public transportation, increasing traffic congestion and carbon gas emissions exceeding legal limits. All these summarize the situation in our cities today... Increasing carbon emissions, especially from transportation, is an issue that needs to be taken as a precaution. According to 2018 data, the distribution of greenhouse gases from transportation alone in Izmir is calculated as 23%, 19.9% of it being the carbon emissions from private cars. According to the Izmir Transportation Master Plan (UPI 2030) projection, the Izmir Metropolis is projected to have approximately 6 million 200 thousand people in 2030, and measures need to be taken to efficiently reduce increased travel and car ownership. This is possible through the implementation of sustainable transportation policies in the city.

Carbon emissions from transportation are one of the factors that trigger the climate crisis that threatens our planet. Cities around the world are taking measures to reduce the energy consumption and environmental impacts of conventional transportation and urban mobility, while striving to provide better and fairer access to key destinations and services and reduce their carbon footprint.

Today, nearly half of the world's population lives in urban areas and this is projected to increase to two-thirds by 2050. Given the increasing number of motor vehicle ownership and daily trips associated growth, it is a strategic goal for country and city governments to take measures to prevent the share of carbon emissions from transportation and the threat it poses. To achieve this goal, cities are developing sustainable transportation scenarios.



Why Sustainable Transportation?

We travel for many reasons: to work, to school, to visit or to shop...and we use transportation systems to move goods to where they are needed. In this way, a well-functioning transportation system is an important component of a country's economy.

"Sustainable transport" or "green transport" refers to safe modes of transportation that have a low impact on the climate and the environment. This type of transportation tends to use renewable energy instead of coal or other fossil fuels that can harm the earth. Modes of transportation do not need to use an energy source to be sustainable. For example, a 'bicycle' is an environmentally friendly mode of transportation that requires no energy other than that of the human rider.

The bicycle is the most well-known form of sustainable transportation and supports human life in the best possible way, as well as helping to protect the planet. Cycling is affordable, free, cheap to maintain and of course emits no greenhouse gases. Shared Car Sharing is not a mode of transportation like private cars or bicycles, but it is an alternative that can reduce journey rates, especially in urban transport. When people go in the same direction and share the same vehicle at the same time, the air will be less polluted and traffic congestion will be reduced. Electric cars, bicycles, scooters, trains are other environmentally friendly and sustainable transportation alternatives.

Sustainable transportation for the city also means improving quality of life, ensuring access for all, availability of public transportation alternatives, reliability and seamless integration of these modes. A people-oriented, better and fairer transportation is a fast, cheap and reliable journey. Environment and people-oriented "sustainable transportation" means the expansion of low and zero emission, energy efficient and affordable modes of transportation. Sustainable transportation has a less harmful impact on the environment.

Depending on the geography, transportation contributes to 12%-70% of urban air pollution.

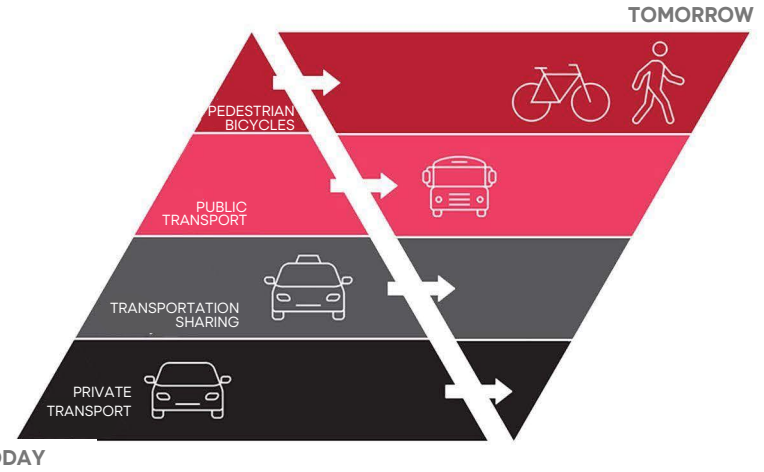
According to World Bank data, transportation is the fastest growing source of energy-related carbon emissions; 23% of carbon emissions in 2010 were from transportation alone, while at least 184,000 deaths can be attributed to air pollution, especially from vehicles.

Making urban transport sustainable will solve many problems, with potential positive impacts on the economy, quality of life and health. Shifting a city's dominant mode of transportation from private motorized vehicles to public transport can prevent urban sprawl and promote livable density, affecting land values and carbon footprints for many years to come. Efficient, fast and cheap access to work, school, public space and shopping ensures equitable and fair urban mobility. Thereafter, a shift to electric transportation options can increase energy independence by reducing dependence on fossil fuels.

Making Transportation Sustainable

Sustainable transportation measures can mean various things depending on the city in which they are implemented. In order to define what sustainable transportation will look like in a city, we need to understand the importance of implementing certain things: increasing walkability, building more bicycle lanes, strengthening public transport and integration, improving the shared bicycle system, improving the infrastructure for electric vehicles, implementing parking policies, creating safe pedestrian zones, revitalizing micromobility infrastructure, and so on. After the definitions about the city, sustainable transportation will be realized through participatory planning processes. Sustainable transportation will be possible through behavioral changes.

In order to implement and develop a sustainable transportation system, it is necessary to produce solutions and take measures within the economic, environmental and social framework. Ensuring that the cost of transportation is affordable for all segments of society (without forgetting those with low income) and taking measures accordingly; producing solutions that reduce carbon emissions and pollution and protect the environment; improving and developing safe and accessible mobility options for people regardless of their gender, age and physical abilities...



In order to make transport and mobility sustainable, it is necessary to monitor and evaluate progress, and to do so by setting a timeline and defining a baseline and target time. In this way, actors in sustainable transport measures will be able to measure changes and understand whether they are getting closer to the target. For example, according to the UPI 2030 projection, cycling in Izmir will increase from 0.5% in 2015 to 1.5% in 2030. This rate has already been achieved by integrating cycling in maritime transportation with a symbolic fare. 0.8% (2022).(UPI 2030)

Measures should be taken to reduce greenhouse gas emissions from transportation and the carbon dioxide intensity of journeys. With this goal, it is necessary to gradually introduce alternative vehicles (e.g. electric vehicles) to the market and encourage their use. The realization of high-speed rail investments is also expected to reduce the carbon footprint on a global scale. However, it is still necessary to calculate the carbon emissions generated during the construction of rail infrastructure and to conduct a rigorous feasibility study.

The most important infrastructure component of sustainable transportation policies is traffic management. In urban transportation, traffic can be managed and congestion can be reduced to efficient levels by means of travel tariffs. The rail system scenario will reduce automobile dependency and compete with this dependency; it will also be a measure to control the efficiency of traffic density.

Sustainable transportation requires a healthy balance between people, transportation and natural systems. In cities, many people live in areas with high emission levels and polluted environments. A sustainable transportation strategy in harmony with nature can reduce exposure levels below legal limits, increase healthy environmental conditions and create a happy society. In walkable cities, people walk, cycle and breathe with a sustainable transportation system promoted. Sustainable transportation therefore not only benefits the health of individuals, but also contributes to the health of the wider local community; urban mobility increases.

With greater urban mobility and an affordable transportation system, people can more easily access where they want to go. Sustainable mobility measures, implemented with a people-centered approach, also generate urban economic benefits. A sustainable economy is also mentioned in the individual-community-city benefit cycle. In order to implement sustainable transportation activities, a comprehensive employment framework is created in the city, where actors and professionals requiring policy and strategy formulation, design and scenario development, urban planning, construction and construction works and many other specialties can contribute with their skills. Local governments will also manage the sustainable dynamics of the city in the right way by strengthening the technical capacity of the administrative units they establish for the implementation of sustainable transportation and urban mobility scenarios and the preparation of action plans.

Making transportation sustainable is a worthy challenge for our city, our country and the planet we live on.

Enthusiasm for May 19 filled the squares in Izmir

May 19 Commemoration of Ataturk, Youth and Sports Day in Izmir witnessed great enthusiasm with the activities of Izmir Metropolitan Municipality. Within the scope of the events, "Youth March" was organized. Izmir Metropolitan Mayor Tunc Soyer, CHP Izmir Provincial Chairman Senol Aslanoglu, district mayors, citizens and young people participated in the march that started at the entrance of the Lausanne Gate in Kulturpark. The crowd marched with banners until Gundogdu Square. After the march, famous artist Mabel Matiz took the stage at Gundogdu Square. The crowd filled the square and sang along to Matiz's songs.

Izmir Will Be Prepared for Disasters

IMM's earthquake research and risk reduction projects, initiated to ensure that the city is affected by possible disasters with minimal damage and to identify areas suitable for safe construction, continue. Along with the seismicity and building inventory studies in which faults on land and sea are examined, the ground research is also continuing. Izmir Metropolitan Municipality Mayor Tunc Soyer examined the drilling works carried out to determine the soil properties of Bornova Plain and its surroundings. Soyer, who was informed about the drilling studies, said, "The studies will reveal results that will shed light on Türkiye as well as the future structuring of this city."

Industrial Wastes to be Disposed of Torbali

Izmir Metropolitan Municipality Mayor Tunc Soyer examined the construction works of the 2nd stage project, which aims to increase the capacity of the Torbali Advanced Biological Waste Water Treatment Plant, which serves the district to prevent environmental pollution in the Kucuk Menderes Basin and protect the basin. Providing information about the facility, which will treat the wastewater of approximately 200 thousand people when completed, Mayor Soyer said, "When the facility is commissioned, both domestic and industrial wastes will be disposed of. One of the most important outputs of this will be the prevention of waste sent to Pamucak Beach without treatment."

Uninterrupted Transportation from Bornova to Buca

IMM opened the 2.2-kilometer viaduct phase of the "Buca Onat Street to Intercity Bus Terminal and Ring Road Connection Road" project, which will connect Buca and Bornova without interruption. Mayor Tunc Soyer was the first to pass through the viaduct, which will relieve the traffic in the region. Stating that the work on the tunnel phase of the project, which is planned to be completed in 2025, is progressing rapidly, Mayor Soyer said, "Today is a good day for Izmir, because we have come to the end of the project that we have been working on with a very serious investment for a long time. I say I wish all the best to Izmir."

Izmir Metro is Coming to Narlidere

The first passenger test drive of the Fahrettin Altay-Narlidere Metro, the fourth phase of Izmir Metropolitan Municipality's light rail system, was held with the participation of Izmir Metropolitan Mayor Tunc Soyer. The 7.2 kilometer long metro line with 7 stations is planned to be opened in the coming months. Speaking after the first ride, which Izmir residents eagerly awaited, Mayor Tunc Soyer said, "We have been determined from the beginning. We will weave Izmir with iron nets. People of Izmir deserve the best. Good luck to Izmir."

Phase 4 Treatment Plant Construction Bid Provides Great Comfort to Izmir

IMM IZSU General Directorate, Turkey's wastewater treatment leader, is realizing the Phase 4 project that will increase the capacity of the Cigli Advanced Biological Wastewater Treatment Plant, which was built as part of the Grand Canal Project and has been operating uninterruptedly since 2000. Soyer signed the contract for the project, for which the tender process has been completed and construction works will start in June. Speaking about the 600 million lira investment project, Soyer said, "This is one of the most important steps in the history of Izmir Bay. We are both very proud and very excited. Our project will provide much relief for the future of Izmir and future generations will remember us in a beautiful way."

People's Grocery Started to Serve with Mobile Branch

A mobile vehicle has been added to the 11 branches of Halkın Bakkalı/Halkın Kasabı (People's Grocery Store/ People's Butcher), which was implemented with the vision of IMM Mayor Tunc Soyer to provide healthy, affordable and reliable food to the public. Mayor Tunc Soyer visited the first mobile market in Koyici Neighborhood of Cigli, which will serve between 09.00 and 20.00, and was accompanied by Murat Onkardesler, General Manager of IzTarim Inc., Metropolitan Municipality bureaucrats, neighborhood neighborhood local headmen and municipal council members. Soyer stated, "It will reach every neighborhood of Izmir, the neighborhoods where it is needed the most. It will allow our citizens to enjoy meat products that they have been deprived of for a long time."

Golden Bridge Special Award to Mr. Soyer

Mayor Tunc Soyer was awarded the Golden Bridge Special Award, which is given to individuals or institutions that work internationally, bridge the gap between countries and pioneer with the steps they take, at the 11th Bedia Muvahhit Theater Awards ceremony organized for the 11th time this year in the name of Bedia Muvahhit, the first female theater actress who took the stage at the request of Atatürk. Mayor Soyer said, "I will continue to work hard and with love to be worthy of this award." Izmir Metropolitan Municipality City Theaters also received four awards at the ceremony.

Karakilcik Wheat of Izmir on the Way to the USA and Canada

Small producers are on their way to becoming exporters thanks to the agricultural projects created with Soyer's vision of "Another Agriculture is Possible". 8 thousand years old black wheat from Izmir has crossed the ocean and reached America and Canada. Stating that İzmir's karakilcik pasta, which attracts the attention of consumers due to its protein content, nutritiousness and being an ancestral seed, is on its way to export, Mayor Soyer said, "All agreements have been signed and the pasta is on its way. It will take its place in the markets in New Jersey in the United States and Toronto in Canada. "In the coming period, our export efforts will continue so that Izmir branded products will be in the markets in many cities in the American continent."

Izmir Metropolitan Municipality Third in Europe

Izmir Youth Metropolitan Municipality and Sports Club wheelchair basketball team came third in Europe in the IWBF EuroCup-3.

"School of Jesters" Meets Children of Izmir

Izmir City Theaters premiered the second children's play "School of Jesters". The little ones who filled the hall watched the play with interest. Izmir Metropolitan Municipality City Theaters (IzBBST) did not forget the children in it second season. IzBBST, which presented its first gift to the children of Izmir with the play "Robinson Learns to Dance" last year, also premiered the play "School of Jesters".

Goal: 10 Million Lira Funding or Earthquake Victims

SEN BEN YOK BİZ VARIZ

Bir Kira Bir Yuva Müzayedesi

Under the leadership of IMM Mayor Tunc Soyer, the proceeds from the "There is No You or Me There's We" earthquake solidarity art event, which started on May 1 and will continue until May 21, will be transferred to earthquake victims.

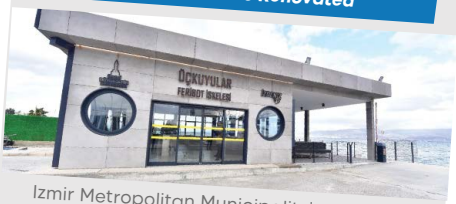
Menderes Women Also Stepped into Cinema

Izmir Metropolitan Municipality Mayor Tunc Soyer initiated the "Women of Our Neighborhood Are Making Cinema" project in Seferihisar, which was followed by Konak, Kadifekale, Ornekkoy and Aliaga.

Drawing of Lots for Neighborhood Orchard

Mayor of Izmir Metropolitan Municipality Tunc Soyer. The draw held to determine the new beneficiaries of the Neighborhood Orchard established in Kadifekale participated in the shoot.

Uckuyular and Bostanlı Ferry Piers are Renovated



Izmir Metropolitan Municipality's efforts to strengthen maritime transportation continue. With the increasing use of ferries, the Metropolitan Municipality rolled up its sleeves to provide passengers with comfortable transportation. started renovation work at Uckuyular and Bostanli ferry piers

94 drinking water wells are being drilled in Kucuk Menderes

Izmir Metropolitan Municipality IZSU General Directorate of Kucuk Menderes, where agriculture and animal husbandry activities are intensive is progressing step by step towards its goal of drilling 94 new drinking water boreholes in the basin in just one year. Of the wells planned under the 2023 investment program, 23 have been commissioned and 71 will be drilled in the coming months.

Soyer: We Will Create a Kemeralti To Which We Will Proudly Invite The World

Izmir Metropolitan Municipality Mayor Tunc Soyer examined the ongoing works in Kemeralti to revitalize the historical axis between Konak and Kadifekale and increase the attractiveness of the region. Mayor Soyer said, "We are solving the 50-year problem of Kemeralti."

Zubeyde Hanim commemorated at her grave in Izmir

beyde Hanim, the mother of the great leader tafa Kemal Atatürk, was commemorated at grave on Mother's Day. Speaking at the commemoration ceremony, Mayor Soyer said, "There is only one day left wake up to a Republic of Turkey where ional love and peace, which we learned from our mothers, prevail."

Free laundry service for university students in Cigli

Izmir Metropolitan Municipality's free laundry service for university students was launched in Cigli after Bornova.

Following the launch, a panel event was organized with two different sessions where the importance of multi-stakeholder participation, which plays a key role for the climate neutrality goal, and good examples from Izmir were shared.

The first session was moderated by Hulya Ulusoy Sungur, Coordinator of IZKA Investment Support Office, and featured speakers Jane McLaughlin and Keira Webster, NZC City Consultants, Adriana Colquechambi, NZC Citizen and Mobilization Specialist, and Joanna Kiernicka Allavena, Lead Orchestrator for Cities Mission - Pilot Cities Program Leader at EIT Climate-KIC and NZC, who shared the importance of broad stakeholder engagement for climate neutrality.

KIT Izmir Hit the Road for Climate Neutrality

On May 5th, with the launch event held at Izmir Architecture Center, Global Climate Community (GCC) Izmir, which was established to carry out the Climate Neutral and Smart Cities Mission of Izmir, announced that it has started its journey towards the goal of climate neutrality with a wide participation.

IMM Deputy Mayor Mustafa Ozuslu, IMM Deputy Secretary General Sukran Nurlu, Izenergy INC Chairman Ercan Turkoglu, NZC Program Director Thomas OSDOBA delivered the opening speech at the launch event. A very crowded event was held with academics and representatives of civil society organizations from Izmir. In addition to local participation, a rich participation was ensured with the participation of city consultants and experts from NetZeroCities, the executive platform of the Mission.

In the second session, under the moderation of BEST For Energy Team Leader Ekin Taskin, ENSIA Chairman Alper Kalayci, Aegean Exporters' Associations Jak Eskinazi, Izmir Development Agency Dr. Mehmet Yavuz, Izmir Chamber of Commerce Prof. Dr. Mustafa Tanyeri, Ege University Solar Institute Director Prof. Dr. Ceylan Zafer shared key practices carried out in Izmir.

The European Commission's Climate Neutral and Smart Cities Mission offers an important opportunity for cities to take a radical and innovative path. The Commission aims to accelerate climate neutral transformation by identifying 112 pioneering cities that aim to be climate neutral by 2030. Mission cities are expected to build an urban alliance towards climate neutrality and become key experience centers for this transformation. The Commission will continue to support Mission cities financially, technically and politically. Since its selection as a pioneer city, Izmir has been working with great dedication on its climate neutral journey.

"Our door is open to everyone"

Ercan Turkoglu, Chairman of the Board of Directors of IZENERGY Inc. said, "Together, we will produce projects that will reduce carbon emissions in every sector and make us mathematically positive in the carbon account. Izmir's voluntary participation is important. Pilot cities will be determined in the studies to be carried out here. Izmir always strives to be ambitious and pioneering with your knowledge. We want our experts and climate sensitive Izmir lovers to contribute to the projects with their thoughts and knowledge. Our door is open to everyone. We will carry out projects that will reduce carbon emissions. Europe provides financing for projects that go through these processes. We will also work to decarbonize our city and our country. I am sure we will succeed. We will maintain our claim to be one of the most successful cities in Europe in this field until the end."

What will be done?

Within the scope of the work to be carried out, the Climate City Agreement will be prepared. Action plans and investment activities of institutions will be determined. After the Climate City Charter, the Mission Label will be obtained. Receiving the Mission Label will provide more funding for projects in Izmir. The work will be carried out within IZENERGY Inc.

NetZeroCities Experts hosted at 'BEST For Energy Clean Energy International Clean Energy Event'

On the last day of the BEST For Energy Clean Energy International Clean Energy Event organized on 3-4 May, city consultants were invited to observe the rich potential of the city's clean energy ecosystem.

Adriana Colquechambi Zea O'PHELAN - NZC Expert, Keira WEBSTER - NZC Climate Neutral Cities Advisor, A. Ercan Turkoglu - Chairman of the IZENERGY Inc. Board of Directors, Jane MCLAUGHLIN - NZC Climate Neutral Cities Advisor, Joanna Kiernicka Allavena - NZC Pilot Cities Program Leader

NetZeroCities Experts Met with Mayor Tunc Soyer

On May 5, NetZeroCities city consultants and experts met with Izmir Metropolitan Mayor Tunc Soyer in a meeting organized at the mayor's office after the launch.

During the meeting, the city experts shared their experiences during their visit to Izmir. Izmir has a large ecosystem in the field of climate and clean energy. It was emphasized that Izmir has already taken an important step towards the goal of climate neutrality with its existing capacity and willingness to work in the fight against climate change.

District Municipalities SECAP Training and Support Program Opening Program was held with Intensive Participation

Under the coordination of Izenergy Inc., a subsidiary of Izmir Metropolitan Municipality, the "Izmir District Municipalities SECAP Training and Support Program" was introduced for the first time in Turkey and will set an example for all other cities.

The opening event was attended by deputy mayors and authorized personnel from Izmir district municipalities.

IZENERGY Chairman of the Board of Directors Ercan Turkoglu, IMM Climate Change and Zero Waste Department Head Kemal Kilic, Assoc. Prof. Dr. Mete Cubukcu made the opening speeches and IZENERGY EU Projects Officer Berkay Yilmaz gave a presentation to give information about the EU Cities Mission.

Karsiyaka Deputy Mayor Saadet Caglin took the floor and emphasized the importance of the program for all district municipalities and the future of Izmir. She stated that based on her experiences with Assoc. Prof. Dr. Mete Cubukcu and his team, more effective action plans were prepared by using local resources. He called on all district municipalities to embrace the process and follow it seriously.

After Mr. Caglin's sharing, Ahmet Toker, IMM Climate Change and Clean Energy Manager, made a presentation titled "IMM SECAP Experience Sharing".

After the coffee break, Mert Biter, Assoc. Prof. Dr. Mete Cubukcu and Dr. Assoc. Prof. Dr. Hasan Sarptas made their presentations. After the presentations were completed, the question and answer session was held with great interest and the opinions and suggestions of the participants on the subject were shared.

Collective Labour Agreement in a Festive Mood

The eighth term collective bargaining agreement for IZENERGY Inc. personnel was signed with a ceremony between Izmir Metropolitan Municipality, Social Democrat Public Employers' Union (SODEMSEN) and Confederation of Revolutionary Trade Unions of Turkey (DISK) General-Is Izmir Branches No. 2 and 9. With this signed agreement, our personnel received a percentage increase in their base wage. 68% increase was made. The collective labor agreement was celebrated with great enthusiasm. The ceremony in Kulturpark was attended by Izmir Metropolitan Municipality Mayor Tunc Soyer, Izmir Metropolitan Municipality Deputy Mayor Mustafa Ozuslu, CHP Group Deputy Chairman Ozgur Ozel, Izmir deputy candidates of the National Alliance, DISK President Arzu Cerkezoglu, Izenergy Chairman A. Ercan Turkoglu, General Labor President Remzi Caliskan, General Labor General Secretary Sukret Sevgener, DISK Aegean Regional Representative Memis Sari, heads of DISK General Labor branches No. 2 and No. 9, and workers.

Izmir Marathon: An Exciting Sports Feast in the City

Mayor of Izmir Metropolitan Municipality Tunc Soyer concluded the ceremony by emphasizing that sport is not only a physical activity, but also a means of social and cultural enrichment.

The 42-kilometer 195-meter marathon, 42K Run and the 10-kilometer 19 May 19 Run, with nearly five thousand participants creating colorful images on the streets of Izmir, put Izmir on the agenda of the international sports public. This event played an important role in increasing Izmir's recognition in the international arena and in terms of sports tourism.

The International Marathon Izmir, organized by IMM in cooperation with World Athletics, created a carnival atmosphere in the city with great excitement. The marathon was also supported by Izenergy Inc. At the award ceremony, Ali Ercan Turkoglu, Chairman of the Board of Directors of Izenergy Inc. presented the winners with their awards. At Izenergy Inc.'s booth, the company's employees provided information about the Global Climate Community.

Sheware Alene Amare from Ethiopia won the women's race and Benard Kipkorir from Kenya won the men's race.

"We Transform Life in Izmir, Together, One by One"

Wenergy - Clean Energy Technologies Fair and Congress, organized for the first time this year, and We-Cycle Environment and Recycling Technologies Fair, organized for the second time this year, opened its doors on May 9-11, 2023. Izmir Metropolitan Mayor Tunc Soyer and his wife Neptün Soyer attended the opening of the fair. Among the participants were Minister of Youth and Sports Mehmet Kasapoglu, Izmir Governor Yavuz Selim Kosger, Chairman of the Board of Directors of the Aegean Region Chamber of Industry Ender Yorgancılar, Chairman of the Board of Directors of the Izmir Industrialists' and Businessmen's Association (IZSIAD) Hasan Kucukkurt, Chairman of the Izmir Chamber of Commerce Assembly Selami Ozpoyraz, district mayors, MPs and MP candidates, political party representatives, bureaucrats, industry professionals and foreign buyers.

wenergy
CLEAN ENERGY EXPO

Stating that Izmir is hosting two important fairs, Mayor of Izmir Metropolitan Municipality Tunc Soyer said: "Today we are experiencing drought, poverty, climate crisis, endangerment of our food security and disasters at the same time. We are both very unfortunate and very lucky. We are unfortunate because we have forgotten how to enjoy, produce, eat and drink as a part of nature. We have fallen into the delusion that we are the masters of nature and we make life miserable for ourselves. Yet we are very lucky because now we know the source of the problem. Change is in our hands! This is exactly where we started the transformation in Izmir. We are transforming life in Izmir by uniting together."

Stating that nature does not produce 'garbage', Mayor Tunc Soyer said, "There is no such thing as waste in nature. The only species in the world that produces garbage is human... This tells us this in a very simple way. Transformation must first start in our minds, in our thinking. Human-centered thinking, which sees nature's resources as limited and its own needs as unlimited, is now in its final stages. If we want to build the world of the future, we have to define the harmony between ecology and economy. Because if there is no nature, there is no life."

Izenergy Inc., which is successfully progressing towards becoming a pioneer in renewable energy and energy efficiency, also took its place at the Wenergy Fair. Especially the SEE Izmir Platform, which was created within the scope of the EU Climate Neutral and Smart Cities Mission, caused intense interest of the fair participants. In addition, information was shared at the Izenergy stand about Solarwall applications within the Solarwall applications within the scope of the Izenergy Inc.-Solarwall Turkey cooperation announced in April.

GCC IZMIR in-fair panels, which were tested for the first time in Türkiye, attracted great interest. "Clean Future and Entrepreneurship", "Clean Energy Cluster in Izmir", "Green Transformation of Cities, Energy Poverty and Energy Efficiency", "Geothermal Energy", "Solar Energy", "Wind Energy in Izmir", In the sessions titled "Horizon Opening Conversations" and "IZSU ISO 50001 Energy Management System Installation Journey", valuable speakers from the sector and universities shared their knowledge and experiences on combating climate change and energy poverty, and expressed their desire to make Izmir the capital of clean energy. At the end of the panels, Mr. Ercan Turkoglu, Chairman of the Board of Directors of Izenergy Inc., expressed their determination to make Izmir climate neutral by 2030 and invited all stakeholders of the city to unite under the GCC Izmir Platform and produce projects.

Clean Future and Entrepreneurship

May 9, 1st Session

Panelists (From left to right): **Ece Yilmazdemir** (Cyclizm), **Dr. Can Sındırac** (Aspilsan), **Kayahan Dede** (Aegean Technology and Success Foundation)

Clean Energy Clustering in İzmir

May 9, 2nd Session

Panelists (From left to right): **Assoc. Prof. Ziya Haktan Karadeniz** (IZTECH), **Hulya Ulusoy Sungur** (IZKA), **Alper Kalayci** (ENSIA)

Green Transformation of Cities, Energy Poverty and Energy Efficiency

May 10, 1st Session

Panelists (From left to right): **Dr. Sefika Çağla Gundogan** (İzenergy Inc.), **Onur Gunduru** (Onur Energy), **Bulent Kostem** (Cittaslow Metropol)

Geothermal Energy
May 10, 2nd Session

Panelists (From left to right): **Sinan Arslan** (Retired - Mining Engineer), **Elif Demirhan** (Jeotermal Enerji Association), **Prof. Dr. Alper Baba** (IZTECH), **Fatih UCGUN** / DIKILI ASGOIZ

Solar Energy
May 10, 3rd Session

Panelists (From left to right): **Ozgur Unsalan** (AYDEM), **Deniz Garipyılmaz,** (Enisolar) **Zeki Cetin** (Izenergy Inc.)

Wind Energy in Izmir
May 11, 1st Session

Panelists (From left to right): **Sencer Ozen** (IZKA), **Veli Bilgihan Yasacan** (DURED), **Iskender Kokey** (TUREB), **Ozgur Soysal** (TPI Composite)

Inspiring Conversations
May 11, 2nd Session

Panelists (From left to right): **Cagdaş Baytekin** (Lidacon), **Onur Gunduru** (Onur Energy), **Ozan Tuncan** (Loggma)

IZSU ISO 50001 Energy Management System Installation Journey
May 11, 3rd Session

Panelists (From left to ight): **Ercan Bıcakçi** (IZSU), **Dilek Baz** (Ufkabakan), **Onur Gunduru** (Onur Energy), **Zeliha Silleli Unal** (Ufkabakan), **Dr. Filiz Yasar Mahlicli** (IZSU), **Nihal Giral Bakay** (IZSU)

We Are Solving Izmir's Odor Problem with IZAR

The stand of the company, which started the Cigli Wastewater Treatment Plant Revision in 2022 in order to provide a solution to Izmir's odor problem, was well attended by the public, private sector and sector. Among the visitors to the stand was Mr. Ali Hidir Koseoglu, General Manager of IZSU. Mr. Koseoglu received detailed information about the work carried out at the Cigli Wastewater Treatment Plant.

İZAR
İZMİR METROPOLITAN MUNICIPALITY

IZAR INC., which was established in October 2022 with the vision of İzmir Metropolitan Municipality Mayor Mr. Tunc SOYER for a swimmable gulf and clean environment, took its place at the fair. The activities of the company, whose establishment purpose and field of activity is to ensure the creation of a sustainable and clean environment with water, wastewater, solid waste treatment, water recovery, treatment plant revisions, operation works and advanced technological solutions in and around Izmir, attracted the attention of the fair participants.

Investment-Free Renewable Energy Solutions with IZGUNES

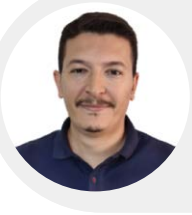
In particular, our company IZGUNES, which carries out renewable energy activities with unlicensed electricity generation projects that pay for themselves with savings without the need for investment capital, also took its place at the Wenergy Fair. With the model known as ESCO in the world and the method determined by the Energy Efficiency Law and Public Energy Performance Contract legislation in our country, it is aimed to realize projects without spending from the investment budget of Izmir Metropolitan Municipality.

İZGÜNEŞ
İZMİR METROPOLITAN MUNICIPALITY

Firstly, IZSU General Directorate's 4 Wastewater Pumping Stations + 4 Water Tanks SPP Project tender was won and the works are continuing at full speed. Development activities are ongoing for wind and solar energy projects of different private sector and subsidiary companies.

At the Wenergy Clean Energy Technologies Fair booth of IZGUNES Inc., representatives of companies with high self-consumption energy needs, academicians, students and the sector looking for solutions from renewable energy sources The event was welcomed with great interest by leading suppliers. Productive conversations and information exchanges were held. During the fair, all participants were informed about the projects carried out and their vision goals were conveyed.

Izenergy Inc. Employees



Hasan KELES

Born in 1987 in Ankara, I am married. I completed my undergraduate education at METU-Civil Engineering Department in 2010. I worked as a Planning and Project Engineer in various companies for 10 years. I am currently working at the Water Resources Research and Application Center.

Since 2015, I have been working as a cook at Izenergy, which I love very much. What I love the most in my working life is that the food we cook reaches people in need. I would like to thank Izmir Metropolitan Municipality and Izenerji family.

Muslum AKAY

Can AYDOGMUS

I graduated from CBU Department of Human Resources Management. For 3 years, I have been participating in AFAD's work as a ready-made staff throughout Izmir. I started working at Izenergy in 2020. I work in the Civil Servant Personnel Branch Directorate Assignment Chief. I am honored to be a member of the Izenergy family.

I graduated from Hacettepe University, Department of Hydrogeological Engineering. I have been working on geotechnical drilling of Sinop Nuclear Power Plant Project, Conceptual Model, determination of hydrogeological parameters of aquifers, monitoring of quantity and quality of groundwater. I have been working at the Water Resources Research and Application Center since 2021.

Mehmet Ali GOKTAS

Soner KIRIM

Since 2017, I have been a member of Izenergy family. I work as an operator in the Urban Cleaning Branch Directorate. I love my job and my colleagues very much. I am proud to struggle for labor and bread within Izmir Metropolitan Municipality and Izenergy.

I have been working at Izenergy since 2011. I also work as a member of the Audit Board of Disk General Labor Branch No. 2. I wholeheartedly congratulate the work carried out by our valuable fellow workers at Izmir Metropolitan Municipality. As Izenerji employees, we have become a family and I believe that we can go further.

Baris BAHADIR

Talat GONEN

Hello; Since 2015, I have been working as a responsible person in the Maintenance and Repair Workshop Unit of Izmir Metropolitan Municipality Department of Cemeteries. I am a part of the Izenergy family. I proudly and happily serve our Izmir.

I graduated from Afyon Kocatepe University, Department of Food Technology. I am also continuing my education at Eskisehir Anadolu University, Department of Office Management. In 2020, I joined the Izenergy family and I am working in the Department of Cemeteries. I am very happy to be a part of such a big family.

Dilay ERGUN

Erol DINC

I was born in 1978 in Kirikkale. Since 2018, I have been working as an operator in Izenergy. As an employee of Izmir Metropolitan Municipality, we clean our streets day and night. I would like to thank all my colleagues and Izenergy family for being with me during these works.

Hello, I was born in 1982 in Bergama, Izmir. I graduated from Anadolu University with a degree in International Relations. I have been working as a funeral transport vehicle driver in the Department of Cemeteries for about 5 months. I am grateful to Izmir Metropolitan Municipality and Izenergy for giving me the chance to be the first female funeral transport vehicle driver in Türkiye.

Fide OZTURK

Zeki TASKIN

Born in 1986 in Ankara, I graduated from Hacettepe University Hydrogeological Engineering in 2010. After working in the field of hydrogeology for many years in the United Arab Emirates and Saudi Arabia, I returned to Türkiye in August 2021 and started my work at the Water Resources Research and Application Center.

I was born in 1995 in Odemis, Izmir. I graduated from Anadolu University Political Science and Public Administration. I continue my education life at Anadolu University Open Education Faculty Occupational Health and Safety Department. I started working as a private security guard at Izenergy about 9 months ago. I am happy to work in the Izenerji family.

Murat BULDAN

“Whenever you are in despair, remember that you are His youth
Your path is the same path; determined, bright and blue!
#19MAYIS”

Tunc SOYER
Mayor of Izmir Metropolitan Municipality

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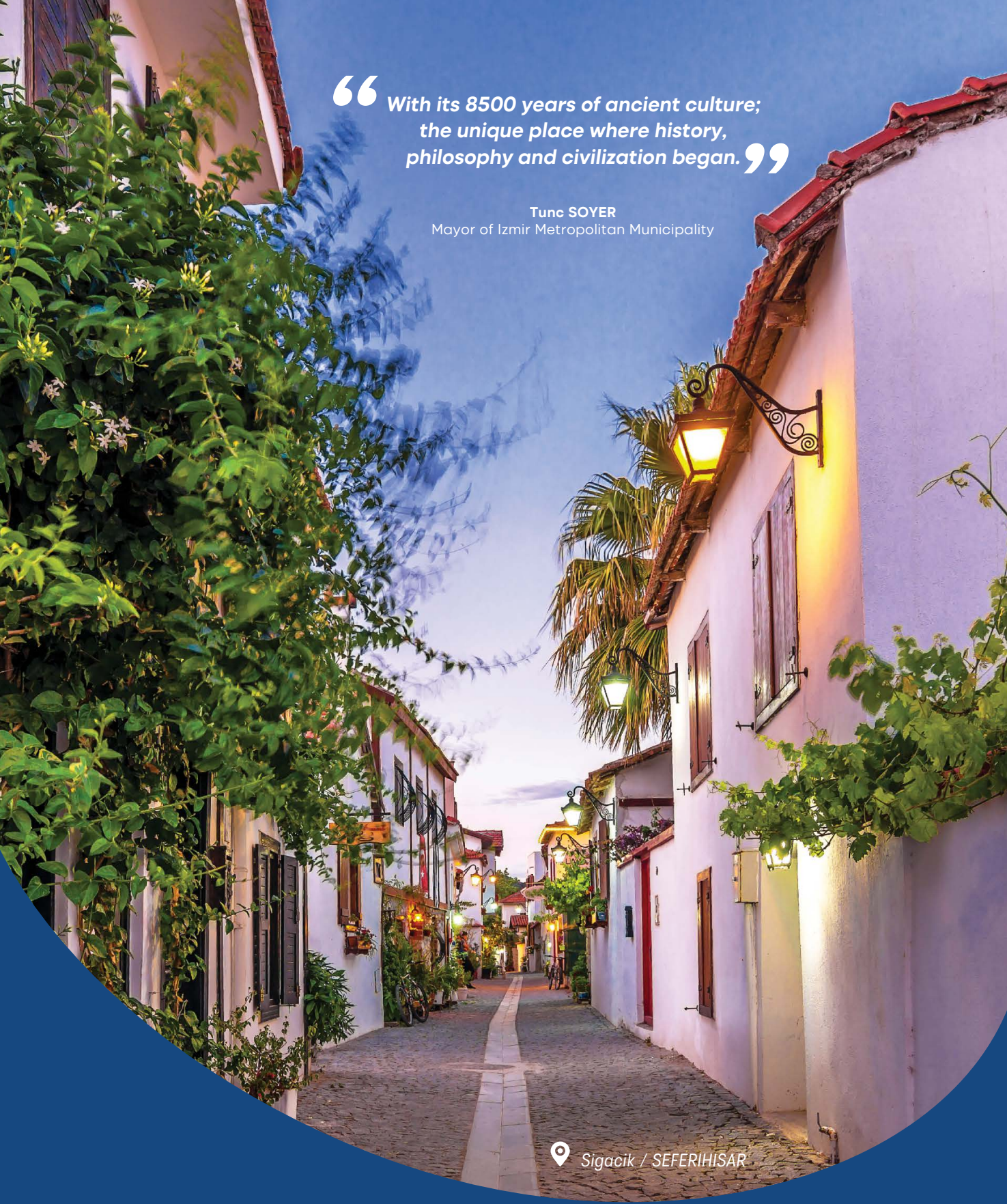

“With its 8500 years of ancient culture; the unique place where history, philosophy and civilization began.”

Tunc SOYER
Mayor of Izmir Metropolitan Municipality

Sigacik / SEFERIHISAR

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