

— **WE LEAD
THE INDUSTRY**
Alper Baycan

— **OUR SOCIAL RESPONSIBILITY
PROJECTS**
*Our Projects We Conducted with Haytap,
Tema, Aegean Forest Foundation and TEGV*

— **APPOINTMENT
OF NEW INFORMATION
TECHNOLOGY MANAGER IN
POLAT GROUP HOLDING**
Murat Temizer

— **WE BROKE A NEW GROUND
IN THE WORLD**
OlivaCat

— **IS MUSILAGE PROBLEM
REALLY OVER?**
Aysu Sağdıç

Everything is
for the Future



Future is colorful with
the power of our R&D



PUBLISHED BY

Polat Group Holding Anonim Şirketi

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EDITION TYPE

Local Periodical Free

DESIGN & DESKTOP PUBLISHING

Medyatik Fikir Reklam Ajansı Dan. Org.
Video Prod. ve Promosyon - Gülçe Ülker
Korutürk Mah. Funda Sok.
No:4 Balçova / İZMİR
T: +90 232 277 0 144
www.medyatikfikir.com

PRINTING HOUSE

Printing Date:



www.polatgroup.com.tr

/polat-group-holding



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From the Editor

Dear Polat Life Readers,

We are with you on the last issue of 2021.

In business world, the last quarter of the year is generally a period when we complete or land up our projects and make year-end reviews. I wish this period to be fruitful and successful for everyone. I hope that 2021 will be a period when we can implement our plans in a healthy way and achieve the results we want.

In this issue, we wanted to give ample coverage to our efforts and supports to protect the ecological balance of the universe, in order to be an example for other institutions and individuals. Although nature has been giving us increasing signals recently, I don't think it makes sense for us to ignore this situation. That's why it's our duty to protect these beauties we live in and we can fight for these beauties together. If we can get one more tree to be planted and even a few less plastic to be used as long as we live, I say, lucky us.

We wanted to convey to you from the words of Polat Group employees how Polat Group contributes to both people and nature with its eco-friendly products, and how this contribution will continue with its new works. In addition, you will have more ideas about Polat Group with expert articles about the functioning of Polat Group and its companies, and the role of our departments in this functioning.

I would like to thank all my colleagues, executives and Board Members for their support to this issue.

Hope to meet you again with totally new news and developments.

Gülçin Çiçek

Corporate Communications Specialist
Polat Group Holding

Aydın Efeler Mayor and Ukraine Hmel'nitski Mayor Visited Our Factories



Mehmet Fatih Atay, Mayor of Aydın Efeler visited our factories with Olexander Symchysyn Hmel'nitski Mayor of Ukraine, with whom he signed a sister city protocol, and his delegation, and received information about our products and production capabilities.



News From Us

► Our Training on Environmental Awareness and Hazardous Substance Safety Information has been Completed



With the trainings we provide for the establishment of zero waste awareness, waste separation and awareness in both individual and corporate life, we gain new information on how we can better protect the environment every day.



► Kaizen Training at Polat Makina



We have successfully completed the Kaizen training at Polat Makina.

► Internal Audit Training

Our internal audit trainings, which will contribute to the systematic, independent and documented auditing of our departments in our business processes, have been completed.



► 5S Training at Polat Drive Technologies



Before forming our 5S Teams, our trainings, in which we learned and internalized the Segregating, Organizing, Cleaning, Standardization and Discipline quintet, were completed.



Our Social Responsibility Projects

Polat Group Holding and its companies are taking great steps to protect and keep the future alive by showing their support for social responsibility projects.

We Support Haytap and Tema

We would like to thank the Tema Foundation for the campaign **"We will make it grow again"** in the fires that took place in various regions of our country, which we regret, and we are proud to be a part of it.

At the same time, we are grateful to the HAYTAP association for its efforts to heal the wounds in the fires where our living creatures were badly damaged. As Polat Group Holding and its companies, we will always be happy to support these studies.



With the Aegean Forest Foundation We continue to raise our green areas together.

With the groves created by our Polat Makina and Polat Drive Technologies companies, our efforts to increase the oxygen in our environment and protect our ecosystem will always continue. The groves we have created will be growing in the Kuşadası-Aydın region.

BİZİM ORMAN



Don't Throw, Donate!

Our old electronic products, which have reached the end of their useful life, have enabled thousands of children to receive quality service through the project of the Educational Volunteers Foundation of Turkey (TEGV).

Based on the slogan "Don't throw, donate"; You can support your working, unused or non-working electronic products such as mobile phones, tablets, laptops and desktop computers, electronic circuit boards to contribute to the sustainability of both nature and education.

We would like to express our gratitude to our project stakeholders who supported this meaningful project together.



► We Broke a New Ground

İbrahim Polat, Chairman of the Board of Polat Group Holding, broke new ground in the world with his new initiative.

All cats are healthy and family members are happy with the cat litter produced from olive seeds, which is a first in the world, which was revealed as a result of 3 years of R&D work.

**“The Comfort of Your Home,
The Health of Your Family”**



Olivacat Cat Litter:

- Does not contain dust.
- has strong odor control.
- shows fast clumping feature.
- has high absorption power.
- is 100% natural and healthy.
- is antibacterial and antiparasitic.

You can access cat litter and get detailed information from:

www.olivacat.com



WORLD'S FIRST AND ONLY

100% Natural Cat Litter Produced from Olive Seed



OLIVACAT®

Why Should You Use Olivacat Cat Litter?

Dust Free

Your home is kept clean thanks to Olivacat's superior formulation. You can easily clean the cat litter without any dust spreading. Thus, your and your cat's lungs remains healthy.

Healthy and Natural

Thanks to its 100% natural content, Olivacat is safe even if your cat accidentally eats it. It is completely natural and suitable for health. It does not cause any health problems or infections in the paws of your cats.

Fast Clumping Forming

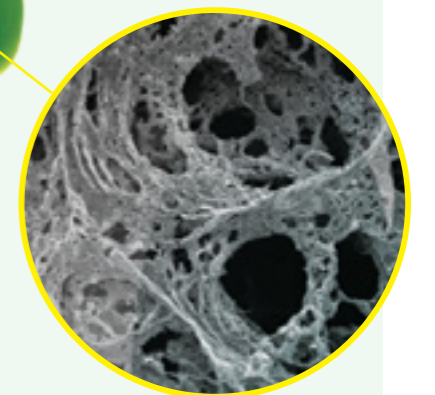
In a very short time from the moment your cat urinates, clumping occurs.

High Absorption Power

Thanks to Olivacat's unique structure and superior formulation. It has the power to absorb liquid quickly in a short time.

Strong Odor Absorption

Thanks to the porous structure of olive pits and Olivacat's fast clumping feature, the odor is quickly absorbed, thus preventing the formation of odor.



OLIVACAT®

"The comfort of your home,
the health of your family"



A FIRST IN THE WORLD!
Natural Cat Litter Made
from Olive Seed.

Does not contain dust,
It shows strong odor control
and fast clumping feature.

High absorption power,
100% Natural and healthy,
Antibacterial and antiparasitic.

“No one can climb the ladder of success with both hands in the pocket!”
- Confucius



Serkan Demirel
R&D Manager
Polat Drive Technologies

R&D Processes at Polat Drive Technologies

We talked to Polat Drive Technologies R&D Manager, Mr. Serkan Demirel, about R&D and P&D processes at PGR...

Hello Mr. Serkan, we know that you have been working for PGR for many years. Could you briefly tell us about yourself and your position at PGR?

Hello. I was born in 1985 in Aydın. After graduating from Aydın Adnan Menderes Anatolian High School in 2003, I completed my higher education at Eskişehir Osmangazi University Mechanical Engineering. I can say that I have been with PGR for about 18 years. I am currently working as the R&D and P&D Manager at Polat Drive Technologies, where I came to do my university internship. While doing my first compulsory internship, I took an active role both in the production field and in R&D activities. I worked voluntarily at PGR company during the following midterm and summer holidays. Here I gained invaluable knowledge and experience, not money. During this time, I improved myself by working in all branches of production. Occasionally, I disassembled and assembled parts on the workbench, and sometimes I assembled a gearbox in assembly. During school time, I visited customers with PGR Regional

Representatives whenever possible. When I graduated, I started to work as an Engineer in the R&D Department of PGR. After working as an R&D Engineer for 3 years and as an R&D Supervisor for 4 years, I have been working as an R&D and P&D Manager for 7 years.

How many people do your team consists of in the R&D Department, which is the kitchen of the gearbox, where innovation is extremely important and where the real ideas are born? Can you talk a little bit about business processes? What kind of R&D process do PGR and NRW products go through?

Currently, we are a young, dynamic team of 15 people eager to learn in the R&D and P&D Department. We have engineers, constructors, painters and graphic designers in our team. We consider many criteria before designing a product. You can think of the gearbox not as a machine in itself, but as a spare part of the machine, but without it, the machine cannot start its function. The gearbox plays an important role in the quality of the machines. I see the



gearbox as the heart of the machine to be produced. The more accurately your reducer works, the better your machine, your gearbox works, more properly your machine works, and can move on. That's why we take careful and confident steps in all design processes. First of all, we examine the power-momentum-type demands of the market/customer. If we cannot meet this with our current products, how can we improve our gearbox? Or how do we meet the needs? We brainstorm together. As PGR, we have been researching it for a long time while implementing a project. We organize one-on-one meetings with customers. But it is mostly fairs that guide us. We attend nearly 15 international fairs in a year as active participants. Here, we both introduce our products and find the opportunity to examine products suitable for the new world order. In this way, we always ensure that our ideas remain fresh. After determining for which sector we will design a gearbox, we first deal with the gears, which are the most important parts of the gearbox. Then, we are considering what materials

we can produce the gearbox parts from. After creating the draft designs, with various engineering programs, we calculate the power resistance, thermal needs and working life of all parts separately. We are trying to achieve the product quality under the optimum conditions. We create our designs in a quality that befits the POLAT brand, while minimizing costs.

What are your new projects and plans? Do you think you make a difference in the sector with your products? Can you tell us about the conveniences you provide to customers?

We have project plans for approximately 4 different sectors in the upcoming period. Solar panels, plastic injection machines, sawing machines, mixer machines are the leading of these sectors. We have already started preparing the infrastructure for them. But we aim to complete one of our most important projects this year, "Cycloid Gearbox". The number of companies that can make this product in the world is thin

on the ground. We had been planning to implement this project for many years and finally we started our work. The cycloid gearbox type is very different from the working principle of common standard industrial gear units. Since the gear form of this design is cycloid, it transmits the required moment from one element to the other in the form of rolling. There is no sliding friction as in the standard gear. This form, due to its design, eliminates friction and provides a vibration-free operation. The most obvious advantages of this product are high efficiency, quiet operation, overload protection, and long working life. When our product range is examined, I can say that PGR is a gearbox company which has most diversified products. This means that we carry the PGR signature in every sector. We are in constant contact with our customers. All our customers can contact us and get instant answers to their technical questions. We can also make special calculations according to the wishes of our customers. Apart from the gearbox, we also manufacture special gears at home

and abroad. In short, we strive to fulfill every request of our customers within the bounds of possibility.

Where do you consider your PGR and NRW brands when you evaluate the gearbox industry globally?

While we are designing a product, we do not think about how to market it in Turkey, but as it can be sold to all countries globally. That's why we always try to do our best to carry our PGR and NRW brands to better and higher levels. We already have brand awareness in the country. We serve in 81 provinces with our regional directorates and dealers. Abroad, we provide direct service to the European market with our factory located in Germany. Apart from this, we sell gearboxes to many countries with our dealers/distributors in different countries. In the upcoming period, we have started our efforts to establish our own factories in the most important regions of the market, such as our German factory. Our goal is to bring our PGR and NRW brands to the best places in the world in this sector.

Finally, what would you recommend to young people who want to work in the R&D departments of industrial companies in the future?

In fact, I would like to give my humble advice to all engineer candidates who want to work not only in R&D but also in the private sector. Every year, tens of thousands of young engineers graduate from our universities in Turkey and unfortunately it is difficult for everyone to find a job in today's conditions. Therefore, throughout their school life, they need to constantly improve themselves in their profession, reinforce their software programs according to the field they study, and most importantly,

learn a foreign language well. Private sectors now don't consider English as a foreign language. They ask the other foreign languages assuming it is already spoken. I also suggest that they take their internships in factories very seriously. Because factories are both a treasury of knowledge and a



door of opportunities. The information learned here is not written in any book. Finally, I would like to end my words with Confucius' words about success. "No one can climb the ladder of success, with both hands in the pocket!"

Interview
Gülçin Çiçek
 Corporate
 Communications Specialist
 Polat Group Holding

DURABLE and STRONG

In A / F, D / M, K series gearboxes resistant to heavy conditions, in accordance with international standards, providing ease of installation with their compact designs; thanks to the possibility of long-term storage with common input and output accessories, we produce faster and tailor-made solutions for NRW gearbox customers.

D/M Series Parallel Shaft Mounted Gearboxes

(D) Hollow shaft gear units

(M) Solid shaft gear units

D / M Series have 7 different body sizes for each stage with 2 and 3 stage options.

There are different input options such as motor coupled, IEC, PAM, W, Servo motor connection.

Bodies are made of ductile iron (GGG 40) and all accessories and internal equipment are produced in accordance with international standards.

It is preferred with its long-lasting, high-performance, parallel-axis body structure with its entrance and exit direction, ease of application in narrow areas and design suitable for heavy working conditions.



D/M 302 ... 602
D/M 303 ... 603

A/F Series Helical Gearboxes

(A) Foot mounted gear units

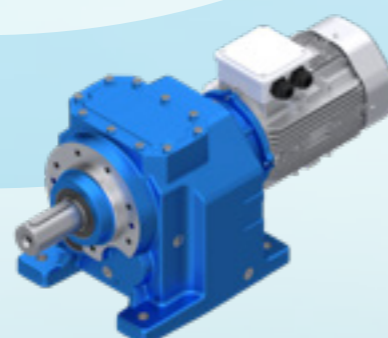
Case Mounted

(AF) Foot and case mounted gear units

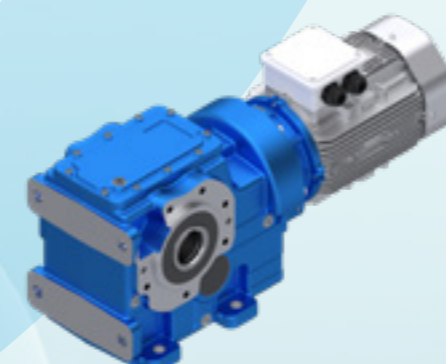
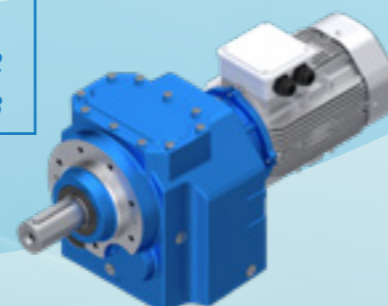
A / F Series; with 1, 2 and 3 stage options, have 6 different body sizes in 1 stage, 10 in 2 stages, 8 in 3 stages. There are different input options such as motor coupled, IEC, PAM, W, Servo motor connection.

Bodies are made of ductile iron (GGG 40) and all accessories and internal equipment are produced in accordance with international standards.

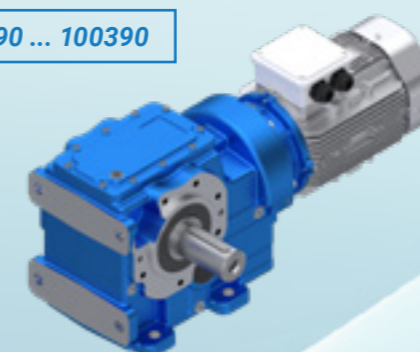
It is preferred with its long-lasting, high-performance, foot and body-mounted, inlet and outlet coaxial body structure, ease of assembly and design suitable for heavy working conditions.



A/F 301 ... 701
A/F 202 ... 902
A/F 253 ... 903



K 35390 ... 100390



K Series Helical Bevel Gearboxes

Foot-mounted gear units

Case-mounted gear units

K Series have 7 different body sizes with only 3 stages.

There are different input options such as motor coupled, IEC, PAM, W, Servo motor connection.

Bodies are made of ductile iron (GGG 40) and all accessories and internal equipment are produced in accordance with international standards.

It is preferred with its long-lasting, high-performance, foot and body-mounted, 90° angled body structure between the inlet and outlet directions, and its design suitable for heavy working conditions.

Appointment of New Information Technologies Manager in Polat Group Holding

Let's get to know Murat Temizer, who was appointed as the Information Technologies Manager at Polat Group Holding.



Murat Temizer
Information Technologies
Manager
Polat Group Holding

Hello Mr. Murat, welcome to Polat Group Holding. Can we get to know you and have information about your past experiences?

Hello, thank you. It is a good experience for me to be in an institution that produces value for the country and the region in Aydın.

To talk about my past experiences, after my university graduation in 1997, I started to work with Netsis, an ERP program. In 2000, started as a basis consultancy at BTC company and worked as a consultant for

5 years in various projects, I had the opportunity to learn about the IT and ERP processes of many companies in Turkey and abroad. I had the opportunity to be involved in many transformations in the field of Information Technologies at Çalık Holding, which I joined in 2005 as a SAP system manager. I did the SAP system management of the group companies spread over 3 continents, respectively, and then I worked in the management of the software and system administrator teams and project management. Then, as business solutions, I had the

opportunity to manage all application processes, especially SAP within the group. Finally, as the Quality Manager of Information Technologies at Çalık Holding, I worked for the implementation of ITIL, PMBOK and COBIT processes, which are information technology standards. After my work at Çalık Holding, I managed the project processes of Kibar Group, Hayat Holding, Tofaş and FORD Otosan by doing project, R&D and key customer management at IKSAP. By doing my own business for 3 years, I founded a company that provides consultancy for ISO 27001, →



SOME and common criteria. Then I managed the transformation of 3 production companies in the group from Netsis to SAP Han by installing the Information Technologies architecture at Kanik Group.

Can you tell us about your position and goals at Polat Group Holding?

As Information Technologies at Polat Group Holding, we have

“ We have a measurable, auditable and sustainable work target that goes hand in hand with corporate goals. ”

a measurable, auditable and sustainable work target that goes together with corporate goals. In terms of business dynamics, I find it right to divide it into two groups, business solutions (SAP and application solutions) and infrastructure solutions. Business solutions and business units are intertwined. Their priorities will be the priorities of their units and the protection of company dynamics. For infrastructure solutions, the priority will be the preservation of continuity and security. Apart from these, of course, we will follow the technologies and bring the appropriate technologies to our companies. We will act as a catalyst in the transformations that digitalization will bring.

As a goal, we can say that while being a strategic department within the group, making a positive contribution to all business processes is carried out in a sustainable way.

There have been many developments in the field of Information Technologies in the last 10 years. We've heard the terms of Industry 4.0 and IOT in industries a lot. How do you interpret the developments in this regard?

Nikola Tesla's inventions draw a roadmap for where we can go in technology. As you mentioned, there are very important developments in the field of technology, we can call the last 30-40 years as the years of innovation. We have seen a serious acceleration in the last 10 years.

As for the concepts of Industry 4.0 and IOT, they were actually systems that have been used and functioned on these topics for many years. With the cheapening and acceleration of technology and the increase in interoperability of systems, they have become concepts that have become widespread rapidly today. With Industry 4.0, it is possible to

access more control and, accordingly, more and more accurate data. With this incoming data, big data and machine learning will be widespread in our lives. Blockchain technology, which is in the infrastructure of cryptocurrencies, will soon enter the approval processes in our lives.

While Information Technologies are used to be structures that can be managed with people, with increasing technology and use of technology, they started to become more complex structures. Technologies we are talking about and increase in working remotely with the pandemic increased the security needs, and also gained importance to security studies management.

With the increase in autonomous vehicles, new concepts will enter our lives. For example, in an accident involving an autonomous vehicle, it is a bit complicated legally today to identify the perpetrator (whether the person inside the vehicle, the software developer, the person producing the technical evening of the vehicle, etc.) As long as they live, the law will update itself on these issues.

What will be the effects of digitalization on companies in the near future and how will these effects change our working life?

Companies that act early and take the right steps in digitalization will gain a competitive advantage with more and accurate data coming to their decision mechanisms. In this digitalized world, rivals will differ as concepts such as near and far will differ.

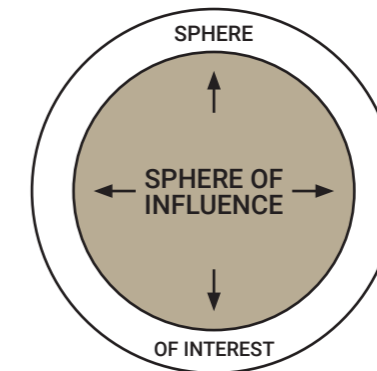
Although digitization seems as a fact to replace human, it should not be forgotten that the most important source of digitalization is human. Since the digital transformation will be a cultural transformation, the transformation of the human resources connected to it must

“ With the increase in autonomous vehicles, new concepts will enter our lives. ”

be supported continuously. It will be very difficult to get the desired benefit from digital transformation projects without planning this cultural transformation.

In the near future, besides the increase in robotic devices and IOT devices, RPA (robotic process automation) applications will become widespread in our lives. The widespread use of RPA will enable employees to do more qualified work

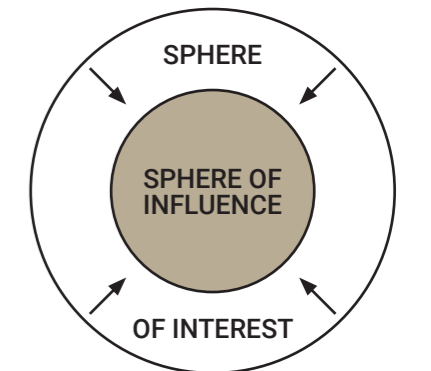
What would you recommend to our young friends who want to pursue a career in Information Technologies?



I advise our young friends who want to pursue a career in IT to focus on and be the best at what they focus on. Afterwards, I think it would be beneficial for them to be in a project with security, big data and field automation systems, as the coding part will soon differentiate with RPA-based systems.

Lastly, I would like to share information from a training I received years ago, influences and interests are found in every part of people's daily life. It does not seem possible for us to add value to our lives with the field of interest. The increase in our area of interest in a 24-hour period narrows our sphere of influence. As adults living modern life, we can be more successful in our work by increasing our sphere of influence. If we can turn our hobbies into one-to-one application, we have taken them into our sphere of influence, but if they remain only our field of interest, we narrow our sphere of influence. Like playing football and watching football matches...

Interview
Gülçin Çiçek
 Corporate
 Communications Specialist
 Polat Group Holding



About Current Agenda of Polat Makina

We had a fruitful interview with Çağlar Alpay, Polat Makina Industrial Sales and Marketing Director, about the pandemic period.

Hello Mr. Çağlar, can you tell us about the domestic and international sales strategies of Polat Makina Industrial in 2021 in the last quarter of the year? Have you developed new sales and marketing methods for this period with the pandemic?

Hello. As you know, most of the events have been canceled or held online due to the pandemic. In addition, we can say that our face-to-face meetings have decreased compared to the past. This process has led us to online solutions and to further increase our advertising activities. We focused more on activities such as organizing webinars for our applications, advertising in digital and print media, and reorganizing the contents of our website. To focus on digital marketing, in particular, has increased our brand awareness and enabled us to reach potential customers that we could not communicate with face to face.

How did Polat Makina Industrial go through the pandemic process?

Like most companies, we have minimized our field visits and let the team's members work in the office on a consistent rotational schedule. In this process, I think that we use remote work effectively as a team. We held both our meetings and our customer meetings online, and I can say that we can still manage our time better by continuing some of our meetings in this way. However, we had a difficult time in the sales process as the fact that face-to-face communication greatly increases the persuasion rate still exists. We tried to compensate for this difficult period by getting more support from our dealers abroad. Our dealers have been our biggest supporters in terms of reaching customers in countries that we could not go to due to the pandemic and establishing relationships with them.

How did the cancellation of fairs and organizations and the significant decrease in face-to-face meetings affect on you recently?

Especially since the fairs are for specific interests, they are the best platform where you can find your target audience collectively. You can establish connections with new or startup companies and potential business partners that you are not aware of, and you can strengthen your existing relationships.

During the pandemic period, some of the fairs continued online, and many were postponed. We have participated in the online ones, but it is a fact that the effectiveness of face-to-face communication is still much more effective. Therefore, it has become more difficult for us to reach potential customers during this period.

Çağlar Alpay
Industrial Sales and
Marketing Director
Polat Makina



In this process, I think that we use remote work effectively as a team.

In many countries in the world, with the effect of the pandemic process, spread of remote working revealed the different forms of work shapes and freelance work started to spread. How do you see the future of Sales and Marketing? In your workspace what changes do you think there are?

In fact, on this subject, the most lucky one is Sales and Marketing departments, as a matter of course work sales teams spends most of their time outside the office. Therefore, in most companies sales channel tend to remote working. If we look at the marketing side; many processes, from demand creation processes to customer services, have now been transferred to the digital environment.

In addition to this, marketing departments operate in different functions and disciplines and It

became more sophisticated and had to follow a large customer network by starting to use new technologies. In the coming years, technology will become a bigger part of our lives in order to understand customer expectations and develop specific sales strategies.

Mr. Çağlar, you have many years of experience in Sales and Marketing. Considering the dynamics in Turkey, what would you recommend to our young friends who aim for a career in the same field in the future?

Sales and Marketing departments are the departments that have to be customer-oriented, therefore, they have to follow the constantly changing human behaviors, expectations and decision-making processes and develop strategies accordingly.

My advice to our young people who have career goals in this field; to be open to change, not to give up easily, to be good team players, but to keep their competitive approach.

Interview
Gülçin Çiçek
Corporate
Communications Specialist
Polat Group Holding

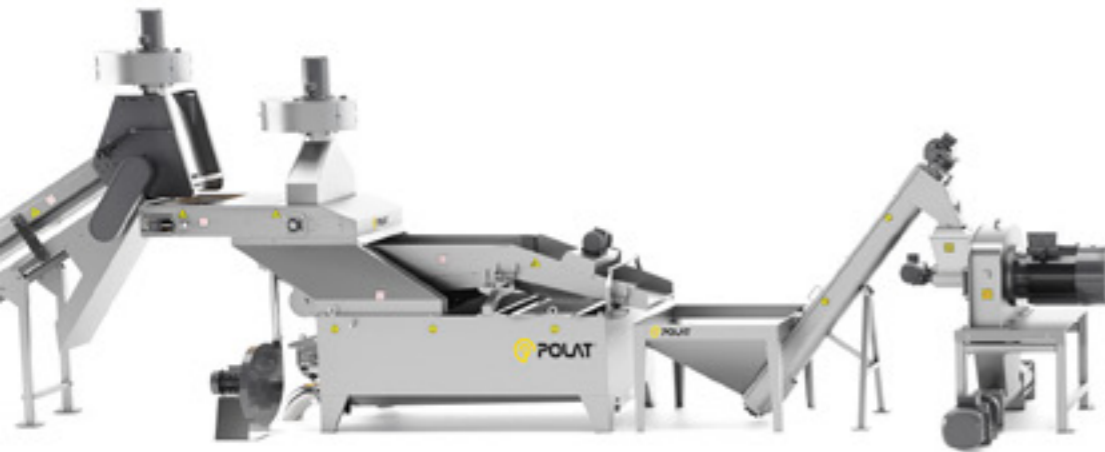
PXZ

Fully Modular System

*With Our Fully Modular System,
Olive Oils Are On Your Table
As It Was Picked From The Tree*



With high energy efficiency, fully automatic control, and extensive system customization we offer exclusive solutions and maximum benefit for you.



With our Innovative and Enterprising Identity We Lead the Industry

We talked with SAES Design Engineer Alper Baycan about the systems used in medicinal and aromatic plant processing technology.

Alper Baycan
SAES Design Engineer
Polat Makina

Hello Mr. Alper, can we get to know you first? Could you briefly talk about your duties and responsibilities at Polat Makine?

Hello, I was born in Muğla in 1993, I am married. I graduated from Pamukkale University Mechanical Engineering Department in 2016.

I started my career at Uğur Soğutma A.Ş. in 2018. I started as an Assistant Metal Works Specialist in the Metal Works Department, and gained experience in metalworking and process management in the Metal Works Department for more than two years. Subsequently, towards the end of 2020, we came across with Polat Makine AŞ. and I started to work as Supercritical Fluid Extraction Systems Design Engineer.

As an R&D engineer, we have to offer

completely user-oriented solutions and we are working hard for this. Before starting SAES design, literature research on the machine, components and related parameters should be done and well analyzed.

For the technical evaluation of customer needs, we pre-evaluate the information received from the sales department within the scope of the machine type determination process. After ensuring that the customer's sample is analyzed and documented in the laboratory in accordance with the sample analysis process, we ensure that the product type and necessary configurations are determined for the appropriate SAES projects. In addition to the duties such as preparing, controlling and ensuring the implementation of the documents required to be prepared within the Quality Management

System; we have responsibilities such as ensuring the up-to-dateness of machinery equipment in the purchasing process, especially in long-term deadlines in foreign purchases, ensuring that the equipment is kept in warehouse stock and after-sales customer satisfaction. We will continue to steer the sector with our innovative and enterprising side that we have gained in the R&D Center.

Could you briefly tell us about Supercritical Fluid Extraction Systems?

Supercritical Fluid Extraction is a new technique used in medicinal and aromatic plant processing technology. The solvent, which we describe as fluid in the system, is in the supercritical phase, the fourth state of matter, at the appropriate

temperature and pressure where gas and liquid phases can coexist. At conditions above this critical temperature and pressure, the solvent is defined as the supercritical fluid.

It is passed into the supercritical phase by being pressurized and heated with fluid, high pressure pump. The supercritical fluid is fed to the extractor containing the product. The fluid, together with the extract that needs to be separated or collected, is sent to the separator by passing through a pressure reducing valve. Due to the pressure difference, the extract is collected in the separator and taken out. The fluid separated from the extract is transferred to the accumulator to be fed back into the system, thus completing the cycle.

The most important feature of a supercritical fluid is its density, which varies with pressure and temperature. By changing these norms, the extraction is given selectivity. In addition, thanks to their high diffusion feature, they penetrate the materials very quickly. These features facilitate the separation process and provide a high reaction rate.

Not every supercritical fluid can dissolve all matter to the same extent. At this point, the correct fluid selection should be made by considering the critical temperature and pressure values of the fluid. Then we choose the carbon dioxide as the right fluid because it is non-toxic, non-corrosive and non-flammable, economical, recyclable, non-hazardous, inert, low viscosity and low critical temperature.

Considering these features, most biological applications are restricted to use of CO2.

What are the sectors addressed by the product, in which areas it is used, can we get information about these issues?

These systems are generally used to obtain extracts from plants. Especially abroad, it is in demand for medical cannabis processing. The benefits of the extract obtained from medical cannabis to human health have led to an increase in the demand in this field.

Supercritical fluid extraction systems are used not only in herbal extraction but also in many sectors. To give an example, it has entered many sectors such as separation



“Supercritical Fluid Extraction is a new technique used in medicinal and aromatic plant processing technology.”



of biochemical mixtures in pharmacy, separation of caffeine from coffee, removal of cholesterol from meat (the desired substance is not only obtained from the product, but also the product is purified by separating the unwanted substance), fractionation of low steam pressure oils in chemistry, fabric dyeing in textiles, electricity from supercritical CO2 power cycle in energy.

We know that Supercritical Fluid Extraction Systems will be produced industrially in Turkey for the first time. How will the fact that this product is produced in our country contribute to the industry?

The Supercritical Fluid Extraction Systems project managed to be among the top 10 projects supported in Turkey within the scope of the "Technology Oriented Industry Move" program carried out by the Ministry of Industry and Technology. This project prepared by Polat Makina San. Ve Tic. A.Ş, will contribute directly and indirectly to the country's economy by minimizing foreign dependency due to being a high-tech product and a wide range of products, as well as being a first in Turkey on supercritical fluid extraction systems.

If necessary steps are taken in the cultivation and processing of medical cannabis in our country, it will have a positive effect on meeting the medical need for the domestic market, it will make a great contribution to the creation of export volume of the processed products (both hemp and other aromatic plants) for the foreign market and to earn foreign currency for our country.

Food-plant basic processing methods have created demands such as speed in the process and increase in efficiency, without sacrificing quality, due to reasons



such as increasing world population and developing technology, energy saving, increasing the capacity utilization rate and reducing the cost. Supercritical fluid extraction system offers effective solutions by responding directly to these demands. In addition to these demands, since CO2 is used as fluid in the system, it is very important that the system is completely environmentalist and never causes environmental pollution.

It is said that the product increases the quality in the sectors where it is used. What is the most important reason for this?

Here, the most important point affecting product quality is

temperature. In the pressing method, which is known as cold press from traditional methods, the casting mouth is exposed to some heat to facilitate the flow of the material. During the pressing process, heat may cause damage to the product in terms of aroma, taste, color and nutritional value. The low critical temperature value of carbon dioxide ensures pure and quality products.

If we examine the fabric dyeing quality, no additional process chemicals are needed to dissolve the dyes. Thanks to Supercritical fluid extraction system, the dyes are used 100% pure and the fabrics are obtained as processed in the quality they entered into the process.

If we consider the issue from another perspective; components

such as ammonia and propane can also be considered as supercritical fluids. However, as ammonia is toxic and is not suitable for food contact, they are not used. Propane is explosive, it is dangerous at high temperature and pressure, it is necessary to work carefully. Considering these features, including other fluids not mentioned, most biological applications are restricted to use of CO2. In this way, both quality products are obtained/ processed and completely harmless and environmentalist systems become widespread.

Interview **Gülçin Çiçek**
Corporate
Communications Specialist
Polat Group Holding

“Low critical temperature value of carbon dioxide, provides pure and quality products.”

Gearbox Assembly Adventure



We talked to the Assembly Executive Ömer Mert about the assembly, packaging, delivery process and all the following stages.

Polat Drive Technologies stands out as a company that shows individual care and meticulousness for each step in the business plan. Thanks to this success, it has gained the trust and satisfaction of its customers.

During the production of gear, shaft and body product groups in our Aydın factory and in our Umurlu assembly plant; the necessary care and meticulousness are always given in all stages following the assembly and packaging stage, delivery process and post-delivery.

Exporting a certain part of its production to more than 80 countries, PGR works to meet the demands with its 20.000 m2 assembly factory in Aydın Umurlu Organized Industrial Zone. Our company, which serves many sectors such as cranes, mines, conveyors, energy, food, agriculture and livestock, designs new products for the sectors it deems

necessary as a result of R&D studies every year, as well as standard products, and adds them to its product range.

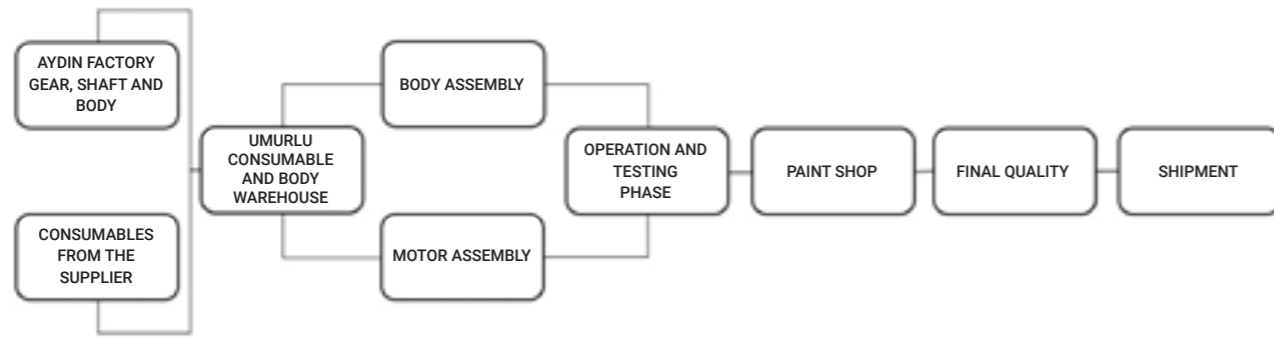
Moving rapidly towards becoming one of the world's leading manufacturers, PGR always prioritizes advanced technology and customer satisfaction and delivers its products to the whole world, especially Turkey and Germany.

Aiming to contribute to the Turkish economy and to become a leading brand worldwide, in the Umurlu factory where our company carries out the assembly processes, apart from the assembly unit; domestic and international sales, assembly supply and planning, semi-finished warehouse, shipment and after-sales service departments operate. The finished products are shipped from our Umurlu assembly plant to the dealer and the end customer.

Ömer Mert
Assembly Executive
Polat Drive Technologies



We can summarize this flow as follows;



SAP software system is used, including all data, so that all data can be recorded and access to data can be provided instantly.

In this context, all parts (gear, shaft and machined body) of the Gearbox gear group, except for consumables (bearing, felt, etc.), are delivered to the warehouse in our Umurlu factory after they are processed in our Aydin factory, and semi-product groups are entered into the stocks by coding with the rack system method together with the consumables procured from outside. The products that are converted into orders as a result of the contact made by the sales departments with the customer are transferred to the planning, the delivery time is given according to the stock status of these products that have been turned into orders in the planning, and they are transferred to the warehouse for preliminary preparations on the basis of the work order.

Work orders entering the warehouse are put into assembly by the warehouse personnel in single or grouped forms with the help of assembly trolleys, according to the deadline, when their preliminary preparations are finished.

As we have given in the flow chart of the gearboxes, the product comes out of the warehouse in two groups, the body and the motor, and assembly processes are carried out.

Gearbox depending on customer requests; only the body (with motor connection) can be mounted and shipped as a single piece of gearbox-motor or only as a motor and only a kit.

Assembly trolleys coming out of the warehouse are given to the assembly presses according to the deadlines after the pre-checks before entering to the assembly and the assembly procedures are started. If the product has engine components,



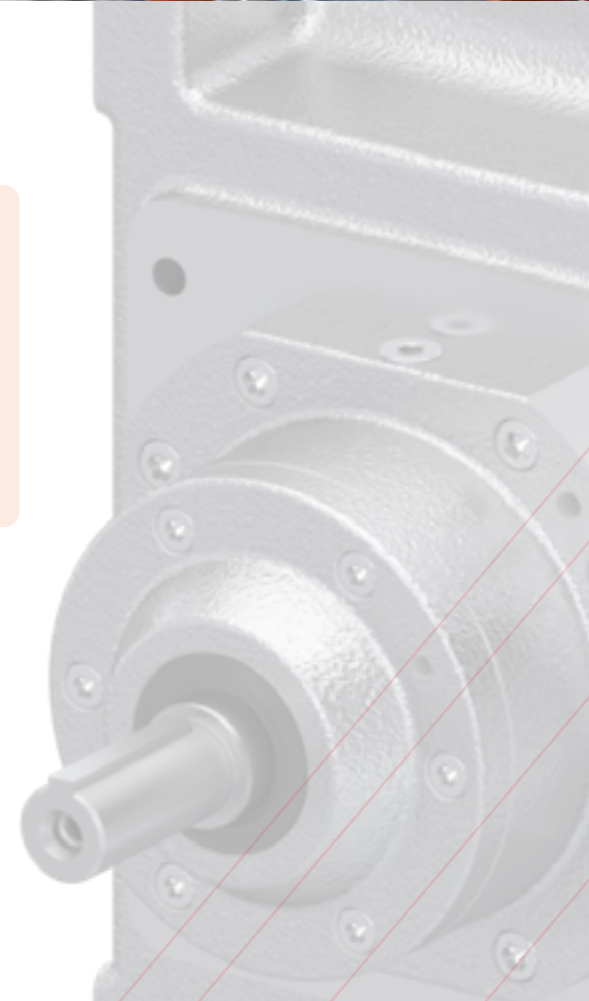
the engine assembly process starts simultaneously with the body and then the two products are installed to each other. Each product, whose assembly is completed, is firstly tested that we call impermeability, and the reaction of the product under pressure is measured (this test is made between 0.5 bar and 2 bar according to the product group) and is sent to the next stage, which is the operating test. With this test, product's vibration, speed, heat and current values are measured. All gearboxes from our factory are subjected to 100% operation test. The product that successfully comes out of this process is sent to the paint shop department as labeled to be tracked. At the paint shop, depending on customer request, the product enters the dyeing process according to the RAL Code which is requested.

After the handling of technical information on the work order and visual controls of the product taken

off the dyeing by the final quality staff, it is sent to shipment section with the attached necessary labels and accessories.

The product that comes to the shipment is now the product that has all processes completed and is ready for shipment. Here, the products are packed according to the shipping addresses and company information and placed on the shelves until the time to be shipped.

We review all our processes at specified periods and take actions for a more efficient work. In the short term, our goal is to establish an assembly line of its own class for each product, to provide line-based assembly management, and in the long term to transform these lines into factories on their own, to create factories that contain their own stock for each product group, and to start mass production of the products.



Is the Mucilage Problem Really Over?

Mucilage, which has become Turkey's nightmare in the past months and is also known as "sea snot" among the people, fell off the agenda after it was cleaned from the sea surface.

Although the mucilage is said to have been cleared, the situation still remains serious. Well, what exactly is mucilage? Is the problem really solved? Let us briefly answer all of these questions.

What is musilage, also known as sea snot?

In its simplest definition, sea snot is a thick and sticky substance produced by almost all plants and some microorganisms.

“Sea snot, which is said to be cleaned with the works done, actually persists at the base of sea.”

Prof. Dr. Mustafa Sari scientifically explains the mucilage as the secretion left in response to some conditions that occur in the environment as a result of the excessive proliferation of microalgae, that is, microscopic plantlets, which we call phytoplankton, which constitutes the beginning and the first step of biological production in the sea. Also mucilage has many components, including many different microorganisms such as viruses and bacteria, and exopolymeric compounds with colloidal properties.

Sea snot known with its slimy structure is created due to the increase in the temperature of sea water and density of bacteria in the environment. So if we ask how this environment created; the biggest reason is the discharge of industrial

wastes and domestic wastes into the sea! The gel-like structure of mucilage (the slime structure we are talking about) covers a wide area from the sea surface to the bottom by enclosing the living and non-living carbon sources around it, negatively affects the living creatures in this environment, in other words, it causes ecological damage.

How Does Mucilage Threaten Marine Creatures?

The gel-like structure formed as a result of mucilage covers the bodies of many fish, invertebrates, and creatures that live by being buried under the sea floor, is causing the structures they need to continue their activities such as respiration, excretion and nutrition; to be stopped up. This situation threatens not only animals, but also plants, algae and seagrass meadows. The slimy structure covers all the leaves and branches of the plants, preventing them from photosynthesizing and causing their death.

Has the Problem Really Gone?

The photos published by Prof. Dr. Mustafa Sari, Maritime Faculty Dean of Bandırma Onyedi Eylül University, who dived near Marmara Island, showed us the truth in a very painful way from his Twitter account.



“Most of the red corals died. The rest are dying. There is no escape from mucilage without stopping the waste we release into the sea. Because the sea is not a magician. Let's not deceive ourselves.”

Could Mucilage Be Prevented?

As we mentioned before, especially industrial and domestic wastes are among the most important causes of mucilage formation, and here is where waste management comes to the fore. It is of great importance to ensure the improvement and development of wastewater treatment plants, especially in industrial areas, and the right selection of machines such as decanters used in the facilities. In addition to waste management, prevention of excessive construction and controlled fishing activities are among the main measures to be taken.

Aysu Sağdıç
Marketing Specialist
Polat Makina



Standardization of Accounting Fundamentals in the Globalization Process:

IFRS



Sami Özdil
IFRS Specialist
Polat Group Holding

The effects of globalization, which is expressed as an international integration process, arising from the developments in transportation, technology, communication and the exchange of products, ideas, cultures and worldviews, make their effects felt in the field of economy as well as in fields such as politics and culture. In the globalization process of the economy, considering that global markets are more accessible and competition is much more intense than in the past, the need for standardization or integration has also become a necessity in the field of accounting. In this context, two basic standardizations have been made in accounting practices in the world.

One of them is the International Financial Reporting Standards (IFRS) established by the International Accounting Standards Board (IASB), and the other is US GAAP, Generally Accepted Accounting Principles established by the Financial Accounting Standards Board (FASB) in the USA. The main difference between these two sets of accounting standards is that the accounting standards (IFRS) created by the IASB are "principle-based" standards; and US GAAP standards are "rule-based". "Principle Based" standards of IFRS are prepared in line with an approach that reveals the principles related to the subject and

the ultimate purpose of the standard. Principle-based standards are based on the fact that financial reporting reflects the economic essence of transactions, not their form. US GAAP's "Rule Based" standards are detailed regulations that try to cover all kinds of applications. The rule-based approach prevents full transparency in financial reporting practices, and in a way prevents the evaluations to be made within the scope of the main purpose of the standards. When evaluated from this point of view, IFRS provided great convenience and transparency for both investors and business managers in terms of correct evaluation.

IFRS emerges as a set of principles regulating the appearance of each balance and transaction in the financial statements. With IFRS,

the right decisions for the future in terms of both determining the resource needs and measuring the real profit margins. Implementation of IFRS, a reporting that is required to be kept by companies that are open to the public and that exceed the criteria set by the Public Oversight Authority (KGK), while providing financial transparency and standardization for other international trade companies; requires the use of "judgment"; within the framework of standards in many components of financial reporting, such as presentation, disclosure, classification, definition, derecognition and measurement of transactions. Reporting, which is decision-making data for business managers, investors and credit institutions, requires innovative expertise, as it depends on the follow-up of current standards and economic variables.

“The “Principle Based” standards of IFRS are prepared in line with an approach that reveals the principles and the ultimate purpose of the standard.”

which aims to enable businesses in different countries to understand and compare each other's financial statements, basically all businesses have been provided to speak the same language in financial reporting. In addition, beyond speaking the common language, showing the real financial status of companies thanks to the "fair value" principle is among the most important contributions of IFRS reporting. In this framework, the reporting outputs created according to the standards, enables the senior management to review the company strategies in a healthy way and make

Since 2005, the European Union (EU) member countries' obligation to prepare consolidated financial statements in accordance with IFRS for listed companies has created a domino effect in the world, leading to a rapid increase in the number of countries adopting IFRS. Today, thousands of companies in more than 150 countries, especially the European Union countries, have started to implement IFRS. As a necessity of today's conditions and globalization, Polat Group Holding and its subsidiaries have



IFRS is the most effective of the standards used for the commonization of accounting fundamentals with globalization.

started infrastructure works for IFRS reporting project as of the beginning of 2021.

The integration of the project into the SAP S/4HANA system was ensured by considering the digitalization of business processes, which is a necessity of our time, for correction and classification processes before reporting. Integration studies are supported by empirical and theoretical literature studies within the framework of standards; provisioning, classification, rediscount, revaluation and actuarial calculations according to the economic conjuncture. In the financial statements together with the calculations made; it is aimed to bring many items such as fixed assets, stocks, debts, receivables, revenues and taxes to their fair values by adjustment transactions.

As a result, in-company reporting capability on a monthly frequency according to IFRS, which is accepted as the most effective standard among the standards used for the commonization of accounting fundamentals with globalization; Although it is a cornerstone for Polat Group Holding's Senior Management and other stakeholders, it is important to make competitor analyzes in terms of financial comparison in a global sense, to ensure an effective internal control process within the company and to determine its realistic financial situation.



Murat Çakmak
Budget and Reporting
Specialist
Polat Group Holding



All Analytics Capacities Unified in One Solution Cloud-Based Next Generation Solutions

Our Budget and Reporting Specialist, Murat Çakmak, informed us about the integrated and cloud-based analytics solutions of SAP Analytics Cloud.

Our Budget and Reporting Specialist, Murat Çakmak, informed us about the integrated and cloud-based analytics solutions of SAP Analytics Cloud.

It is a cloud-based next generation analytics solution that combines all analytical capabilities in a single solution.

It provides decision-making processes based

on accurate analysis with end-to-end discovery, visualization, planning and forecasting functions. Built on the SAP Cloud platform, SAP Analytics Cloud helps to process, make sense and locate all data stacks scattered on a company basis. SAP Analytics Cloud provides holistic transparency in processes, instant data and simplified decision making in the success of companies. This success solidifies by providing



a single and integrated experience in business intelligence and planning processes, as well as providing maximum usability and agility to the end user.

In the age of technology we live in, data has a dynamic structure that is constantly changing, developing and multiplying exponentially. Companies spend a lot of time to make sense of this structure, which is becoming more complex every moment. Many companies have

difficulty in visualizing data from different business processes for use in decision-making processes. In addition, it is not easy to share the information made sense from the data stacks with the decision makers. All these slow and inefficient data analysis and

decision-making processes give your competitors an opportunity and increases uncertainty in your processes.

In the digital economy, it is not enough to have more data to compete and succeed. In order to

“SAP Analytics Cloud provides holistic transparency in processes, instant data and simplified decision making in the success of companies.”



achieve success and make the right decisions, you need to transform the data you have into meaningful predictions, improve your decision-making process and take quick action. With SAP Analytics Cloud, you can perform your decision-making process on just one screen, and provide users with powers such as discovery, prediction, forecasting and planning.

SAP Analytics Cloud provides holistic transparency in processes, instant data and simplified decision making in the success of companies. This success solidifies by providing a single and integrated experience in business intelligence and planning processes, as well as providing maximum usability and agility to the end user.

Integrated and cloud-based analytics solutions of SAP Analytics Cloud;

- Enables complex data stacks to be made meaningful in an easy, fast and secure way;
- Facilitates interdepartmental collaboration, communication and planning processes;
- Enables to increase sales and financial performance with its forecasting and visualization capabilities;
- Offers accurate forecasts with its advanced forecasting feature;
- Provides future budget and cost planning;

- Provides real-time access, intervention and sharing of data from any source;
- Provides an infrastructure that can be easily used by not only data experts but also all employees.

In line with the visionary approach of our management in Polat Group Holding and its subsidiaries, the SAC (SAP Analytics Cloud) reporting system has been gradually adopted since the beginning of 2021, and the digitalization of all reporting and budget databases continues in line with the objective of tracking targets and performances with dynamic live reporting panels.



► Oya Fidancılık was at PSB Anatolia 2021 Fair.

Our plants attracted great attention at PSB ANATOLIA 2021 Fair. At the fair where ornamental plants were introduced, we also introduced our crepe myrtle, which we are the first three in the world and the first in Turkey in its production.



A Colorful Touch All Around the World



Surprising Information About Olive Trees

1

They remain green in all seasons and their leaves do not fall.

As winter approaches, many trees drop their leaves and prepare for winter. But olive trees are lush in winter. Because of this feature, it is a symbol of hope.

2

As a result of some research, 3000 years old olive trees were found.

3

Its name is mentioned a lot in holy books and various mythologies.

The olive branch carried by the white dove became the symbol of peace. In holy books, the Qur'an, Hadith, Bible, Torah and various mythologies, the olive tree is mentioned as a symbol of holiness, fertility, abundance, wisdom and peace. Especially the benefits of olive oil come to the fore.

The Ionian poet Homer likens olive oil to liquid gold.

4

According to a study, in regions where olive and olive oil consumption is high, length of life is above average.

5

Green and black olives are the fruit of the same tree.

6

Turkey ranks 5th in olive oil production in the world.

Spain : % 33
Greece : % 17
Turkey : % 5

Italy : % 23
Tunisia : % 8
Others : % 14

7

It has been observed that the tea obtained from the leaves of the olive tree is beneficial as well as its fruit.

It has antibiotic properties, strengthens the immune system. It is good for colds, lowers blood pressure, It lowers blood sugar, lowers cholesterol.

8

How about olive jam?

As if you asked "Olive jam?" Orange peel and clove added to the green olives of which seeds are extracted creates a nice aroma.

9

A pleasant and rare fragrance: olive blossom eau de cologne

It is produced with the essence obtained from the flowers of olives. It has a different and nice smell. It is light and permanent.



Do Trees Talk to Each Other?

It's like a quote from a horror movie, but surprisingly, the answer to this question is "yes".

Although they have a structure that gives peace in silence, their communication among themselves was tremendously fascinating.

The most well-known person who has done research on this subject is Dr. Suzanne Simard. Her research in the forests of North America determined that they were communicating with each other where trees have roots through the fungi that live with them. Old trees guides the other trees in the woods to support in particular the continuation of their lineage.

The findings show that large and old trees communicated with others more than small ones. Looking at how tall their roots are, she observed that they communicated a lot with other trees. To give an example, if a seedling is planted next to one of the trees older than others, that seedling will be able to contact an incredibly large resource.

According to researchers, this fungi net provides communication not only between trees, but also with other species belonging to the same nature community.

When a tree is overshadowed by another tree, carbon-based sugar transmission from this other tree to the overshadowed one was found. In other words, it has been proven that these two types of tree share the available

resources through fungi net instead of competing for resources.

Likewise, it reveals that trees warned their neighbor about approaching harmful insects through fungi net. When trees are attacked in some way, they protect themselves against invaders by increasing the defense enzymes produced by their defense genes.

According to researchers, a tree under this condition, by also conveying chemical signals to its neighbors through fungi net, can ensure them to be prepared to this defense before.

This communication takes place in about six hours.

Results from these studies are expected to be instrumental in exploring behavior in disasters such as logging trees or fires.

“The findings showed that large and older trees communicated more with others than small trees.”

About Olympics

The name Olympic is derived from the word "sports competitions held in the city of Olympia".

Since 1896, when the Olympics were first held, the games have not been held 3 times, the first one which was not held was in 1916 due to the Berlin War. In 1940, the Tokyo Olympic Games were relocated to Helsinki, and the 1944 London Games could not be held due to the war.

The first Olympic games were held in 9 branches; Athletics, Cycling, Gymnastics, Fencing, Wrestling, Shooting, Weightlifting, Swimming and Tennis. In 1958, the Olympic Anthem was registered.

A small detail: The city that hosts the most games is London. The country with the most medals in history is still the USA.

Although the Olympic Games are very popular today, they were not that much known years ago. The rise of the communication age has increased the participation in the Olympics and the watching rates of the games.

Another interesting event that took place in the Olympics was in Stockholm in 1912. In the games held in Sweden, a match of the two wrestlers for the championship lasted for hours. However, both wrestlers could not end the match. Both athletes wrestled for exactly 9 hours to win the gold medal. Afterwards, the match was ended by the decision of the referee committee. And at the end of the match, both wrestlers were declared second and won the silver medal.

Olympic champion record

The Olympic record of all time belongs to Naim Süleymanoğlu. Naim Süleymanoğlu broke four world records in 64 kilograms at the 1996 Atlanta Olympics and won a medal in the Olympics for the third time. He was elected "World's Best Athlete" by the International Weightlifting Press Commission.



We are experiencing the firsts in the history of the Olympic Games.

Mete Gazoz achieved a historical success by winning a gold medal in archery at the 2020 Tokyo Olympic Games. Yasemin Adar brought bronze medal to our country for the first time in Turkish wrestling history. Likewise, our boxing athletes make us experience the firsts. Rıza Kayaalp got the third Olympic medal in wrestling. In recent years, investments in sports have begun to blossom forth.

We hope that as a nation, we will always experience these happinesses in a stronger way.



IDIOMS

Let's have a look at some funny English idioms.



Break a leg



Good luck



Cut somebody
some slack



Don't be so
critical



To get bent
out of shape



To get upset



Under the weather



Sick



We'll cross that
bridge when
we come to it



Let's not talk
about that
problem right now



As right as rain



Perfect



Let sleeping
dogs lie



Stop discussing
an issue



Haste makes waste



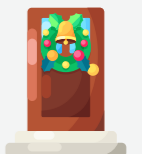
You'll make mistakes
if you rush through
something



Bolt from the blue



Something that
happened
without warning



Hit the sack



Go to sleep



Your Process is **Under Control**

With Polat Makina Decanters
for dewatering and thickening.

