E-BULLETIN
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ASPİLSAN ENERJİ PRODUCING THE ENERGY OF THE FUTURE TODAY

Highlights of ASPİLSAN Enerji's Successes in 2024

Throughout 2024, ASPİLSAN Enerji made significant strides across a broad range of areas, including defense industry projects, sustainability efforts, educational initiatives, and international achievements. Contributing to Türkiye's goal of energy independence with its domestic and national energy storage solutions, ASPİLSAN Enerji showcased its innovative technologies both nationally and internationally during its 43rd anniversary year.

Strengthening Turkey's Energy Independence!

Reflecting on the company's accomplishments in 2024, ASPİLSAN Enerji's General Manager, Prof. Ahmet Turan ÖZDEMİR, stated:

"2024 was a proud year for ASPİLSAN Enerji, during which we achieved our strategic goals, developed innovative technologies, and contributed to our country's independence in energy storage. Guided by sustainability, domestic production, and technological innovation, we successfully launched impactful projects spanning the defense industry, environmental awareness, and sustainable economic themes.

As one of the companies with the broadest product range across various industries in Türkiye and worldwide, ASPİLSAN Enerji continues to set ambitious goals annually to advance its processes. In 2024, we achieved notable successes in national projects, marking another milestone in our journey."

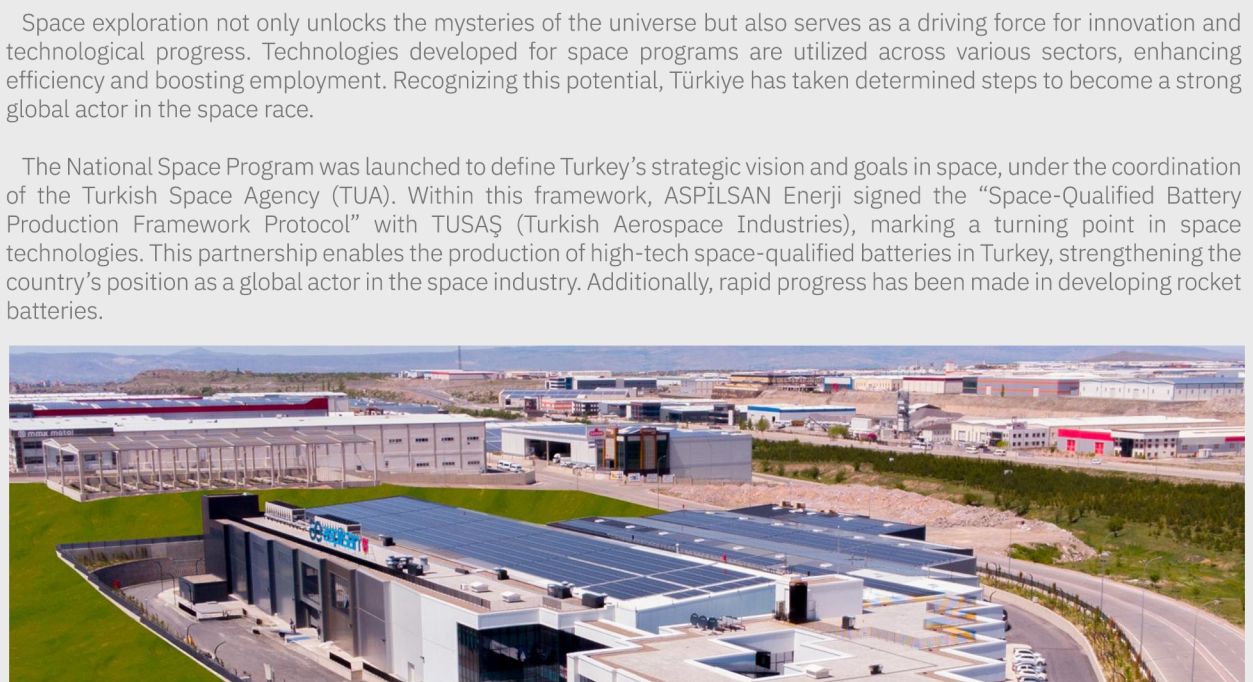
Strengthening Our Defense Industry

Türkiye's indigenous fighter jet, KAAN, successfully completed its maiden flight powered by ASPİLSAN Enerji's battery systems. Additionally, ASPİLSAN Enerji developed customized battery systems for the defense industry, including the BB-1923 and BB-1920. Furthermore, the company introduced Türkiye's first 21700 Lithium-Ion Cell, the ASPİLSAN INR21700A42, setting a significant precedent. In 2024, ASPİLSAN also accelerated its efforts in marine battery systems, producing batteries for torpedoes and unmanned underwater vehicles.

Pioneering in Space Technologies

Space exploration not only unlocks the mysteries of the universe but also serves as a driving force for innovation and technological progress. Technologies developed for space programs are utilized across various sectors, enhancing efficiency and boosting employment. Recognizing this potential, Türkiye has taken determined steps to become a strong global actor in the space race.

The National Space Program was launched to define Turkey's strategic vision and goals in space, under the coordination of the Turkish Space Agency (TUA). Within this framework, ASPİLSAN Enerji signed the "Space-Qualified Battery Production Framework Protocol" with TUSAŞ (Turkish Aerospace Industries), marking a turning point in space technologies. This partnership enables the production of high-tech space-qualified batteries in Turkey, strengthening the country's position as a global actor in the space industry. Additionally, rapid progress has been made in developing rocket batteries.



Modernizing Türkiye's Transportation with ADABÜS

As part of the exemplary ADABÜS project for modern transportation transformation in Türkiye, ASPİLSAN Enerji developed battery systems to support a fully independent supply chain ecosystem. The ADABÜS vehicle fleet was deployed in 2024

Representing Türkiye on International Platforms

In 2024, ASPİLSAN Enerji showcased its technologies at international exhibitions in the United States, Germany, the Netherlands, Azerbaijan, Saudi Arabia, the United Arab Emirates, and Jordan. These efforts enhanced its global presence while proudly representing Türkiye. The company also achieved significant milestones in national and international certification processes, elevating product safety and quality standards to the highest levels.

Despite challenging market conditions, ASPİLSAN Enerji increased its revenue, sustaining growth through domestic production and technological innovation.

Under the European Union's Horizon Europe Program, ASPİLSAN Enerji secured funding for three international projects under the "Climate, Energy, and Mobility" theme in 2024, further solidifying its competitive and sustainable contributions to the European battery value chain.

Workshops on Lithium-Ion Battery Fire Suppression

ASPİLSAN Enerji places great emphasis on enhancing safety standards alongside its innovative solutions in energy storage. In 2024, the company organized a workshop addressing safety concerns around lithium-ion battery fires. High-ranking officials from fire departments in Kayseri, Ankara, and Istanbul, along with academics from Sakarya University, Erciyes University, and Kayseri University, participated in the event.

The workshop explored intervention methods for lithium-ion battery fires, preventive measures for overheating scenarios, and cooling techniques. ASPİLSAN Enerji is committed to achieving high standards and quality both in production processes and user safety.

Educational and Environmental Projects for a Sustainable Future

Beyond technology and production, ASPİLSAN Enerji actively contributed to education and sustainability initiatives in 2024. Through the "Energy for a Sustainable Future" project, the company aimed to foster waste management and environmental awareness among young people and children.

Under the "Sector on Campus" program, initiated through a protocol between the Ministry of Industry and Technology and the Council of Higher Education (YÖK), ASPİLSAN Enerji collaborated with Erciyes University to launch the "Introduction to Battery Management System Design" course during the 2024 Fall Semester.

Collaborative Efforts and a Participatory Management Approach

ASPİLSAN Enerji, dedicated to reducing Türkiye's dependence on foreign energy resources, organized a "Collaboration and Coordination Workshop" in March in Kayseri. This event brought together key executives from the defense ecosystem, further strengthening partnerships and coordination within the sector.

43 Years of Excellence: Türkiye's Rising Energy Pioneer

ASPİLSAN Enerji, with 43 years of expertise, is rapidly progressing toward becoming a global leader in energy solutions across land, sea, air, and space. Strengthening its leadership in cell and battery technologies, ASPİLSAN Enerji continues to boost Türkiye's power in global markets with its international achievements in the aerospace and defense industries.

ASPİLSAN ENERJİ TOOK ITS PLACE AT SAHA EXPO 2024 WITH ITS NEWEST TECHNOLOGIES

ASPİLSAN Enerji participated in the SAHA EXPO International Defence, Aerospace and Space Industry Exhibition held at the İstanbul Expo Center between 22-26 October 2024 with its latest products. Organized by SAHA İstanbul, the largest defence industry cluster in Türkiye and Europe, the exhibition was held under the auspices of the Presidency and with the support of the Ministry of Foreign Affairs, Ministry of Internal Affairs, Ministry of National Defense, Ministry of Industry and Technology, Ministry of Commerce, Ministry of Transport and Infrastructure, and the Presidency of Defense Industries of the Republic of Türkiye.

SAHA EXPO, held under the auspices of the Presidency, is a major meeting and cooperation platform that showcases Türkiye's domestic and national production capacity in the defence industry and prepares the ground for international cooperation.

At SAHA EXPO 2024, which brings together the world's leading defense industry companies, ASPİLSAN Enerji also appeared before the sector representatives with its latest technology products developed as domestic and national.

National Energy Solutions for the Turkish Defense Industry

Prof. Dr. Ahmet Turan Özdemir, General Manager of ASPİLSAN Enerji, remarked on ASPİLSAN Enerji's strategic role in the defence industry and stated that they have been carrying out important projects for 43 years to reduce Türkiye's dependence on foreign energy. Özdemir expressed his satisfaction with ASPİLSAN Enerji's participation in SAHA EXPO 2024 with the following words:

"As ASPİLSAN Enerji, an organization of the Turkish Armed Forces Foundation, we aim to produce solutions that will reduce our country's foreign dependence in the field of energy systems in every work we have been doing for 43 years. In line with this mission, with our cylindrical lithium ion battery cell production facility, which started mass production in June 2022, we have brought together domestic and national products and services with our customers in a wide range of fields from the defence industry to energy storage in the civilian field."

Özdemir said that the cylindrical battery cells produced by ASPİLSAN Enerji are mainly used in radios and portable systems in the defence industry, while they are also used in vacuum cleaners, electric bicycles, telecommunication infrastructures and energy storage systems in the civilian sector. He also stated that ASPİLSAN Enerji plays an important role in the conversion of base stations from lead acid batteries to lithium ion batteries in cooperation with telecommunication companies.

Leadership in Battery Technologies

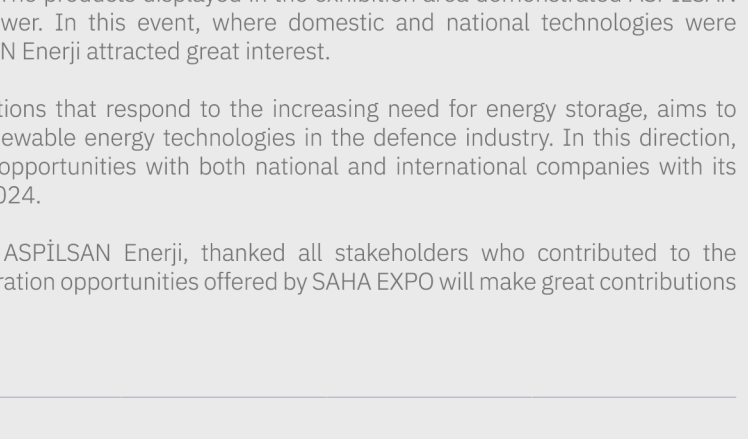
Özdemir continued his statements as follows: "As ASPİLSAN Enerji, we are making important breakthroughs in the production of domestic software and hardware, which is the key to technological independence, under the roof of the Turkish Armed Forces Foundation with the support of the Presidency of the Republic of Türkiye, Presidency of Defense Industry Presidency. As we continue our R&D activities without slowing down, we continue to contribute to the security and defence infrastructure of our country. In this direction, by offering innovative and secure energy storage solutions, we provide reliable energy sources not only for daily use but also for the defence industry and critical communication technologies.

As ASPİLSAN Enerji, we take an active role in renewable energy storage and sustainability projects in order to produce our own energy and make it sustainable in order to achieve our country's current goals and we meticulously and intensively continue our work.

We aim to carry our high-tech battery systems, which we produce with Ni-Cd, Lithium Ion and LFP cells, even higher. In this context, we continue to respond to the needs of the sector with our expert team experienced in battery design and production and established for UAV systems.

Thanks to our high-tech engineering solutions, we are intensively working on the development of strategically important products such as torpedo batteries. With our innovative approaches in this field, we aim to contribute to our naval defence systems.

Our efforts to develop strategic importance products such as space batteries have also gained momentum. With our agile approaches in this field, we aim to equip the space systems field with indigenous technologies. Space batteries play a critical role in the fields of exploration and communication by meeting the sustainable energy needs of spacecraft."



Latest Technologies Introduced at SAHA EXPO 2024

ASPİLSAN Enerji introduced its latest energy solutions and battery technologies to different stakeholders of the defence industry within the scope of SAHA EXPO 2024. The products displayed in the exhibition area demonstrated ASPİLSAN Enerji's innovative and national production power. In this event, where domestic and national technologies were introduced, the solutions developed by ASPİLSAN Enerji attracted great interest.

ASPİLSAN Enerji, which stands out with solutions that respond to the increasing need for energy storage, aims to increase the use of sustainable energy and renewable energy technologies in the defence industry. In this direction, ASPİLSAN Enerji aims to develop cooperation opportunities with both national and international companies with its advanced technology products at SAHA EXPO 2024.

Ahmet Turan Özdemir, General Manager of ASPİLSAN Enerji, thanked all stakeholders who contributed to the organization of the fair and stated that the cooperation opportunities offered by SAHA EXPO will make great contributions to Türkiye's energy and defence industry."

COLLABORATION BETWEEN ASPİLSAN ENERJİ AND ERCİYES UNIVERSITY UNDER THE SECTOR ON CAMPUS PROGRAM

Introduction to Battery Management Systems Design Course Begins at Erciyes University with the Contribution of ASPİLSAN Enerji

Under the "Sector on Campus" program, implemented through a protocol between the Ministry of Industry and Technology and the Council of Higher Education, a new course titled Introduction to Battery Management Systems Design has been launched at Erciyes University for the Fall 2024 semester. This initiative aims to bring the expertise of the technology ecosystem to students and is a collaboration between Erciyes University and ASPİLSAN Enerji, the program's stakeholders.

Erciyes University Rector Prof. Dr. Fatih Altun and ASPİLSAN Enerji General Manager Prof. Dr. Ahmet Turan Özdemir attended the course and engaged with the students.

Speaking at the event, Prof. Dr. Altun highlighted the importance of the course in students' career planning, stating, "The delivery of industry-relevant courses on campus is vital for our students' career planning. We advocate for the continuity of these processes through raising awareness. I extend my gratitude to everyone who contributed to the planning of this initiative."

ASPİLSAN Enerji General Manager Prof. Dr. Özdemir emphasized that the Sector on Campus program significantly enhances the interaction between academia and industry, contributing to the development of skilled engineers. He underlined that the Introduction to Battery Management Systems Design course introduces students to the latest industry practices, strengthening the connection between academia, industry, and the private sector. Prof. Dr. Özdemir further explained that the course content includes topics such as battery design, testing, safety, and various battery technologies. He remarked:"This program aims to address the growing need for expertise in battery technology. The Introduction to Battery Management Systems Design course, delivered by ASPİLSAN Enerji's experienced engineers, provides a solid foundation for future engineers and researchers who wish to specialize in this field. Although university-industry collaboration has been a long-discussed concept, the Sector on Campus program is a significant step forward. It enables curricula to be planned and updated in alignment with industry needs, offering substantial benefits."

This joint effort by Erciyes University and ASPİLSAN Enerji to train the human resources required by the technology and engineering sectors is expected to make significant contributions to Turkey's national technology initiative and technology ecosystem.

ASPİLSAN ENERJİ AIMS FOR A SUSTAINABLE WORLD FOR FUTURE GENERATIONS

ASPİLSAN Enerji's project, "Our Energy for a Sustainable Future", continues at full speed with the aim of supporting sustainable resource use, reducing environmental pollution, and creating a more livable world for our children.

Commenting on the "Our Energy for a Sustainable Future" talks, ASPİLSAN Enerji General Manager Prof. Ahmet Turan Özdemir stated: "In line with our sustainability goals, we continue to meet with young people through our project titled 'Our Energy for a Sustainable Future,' which we started organizing in high schools last year in collaboration with the Kayseri Provincial Directorate of National Education. Through these events, we aim to raise awareness among young people about energy conservation and environmental consciousness. Specifically, we emphasize the importance of disposing of used batteries in battery waste bins rather than in regular trash and promote energy-saving practices for a more livable world."

As part of the project, environmental engineers deliver presentations to high school students, highlighting the importance of the zero-waste approach and the necessity of collecting used batteries in designated battery waste bins instead of throwing them away. Additionally, the talks focus on the benefits of energy conservation in daily life and its positive impacts on the environment.

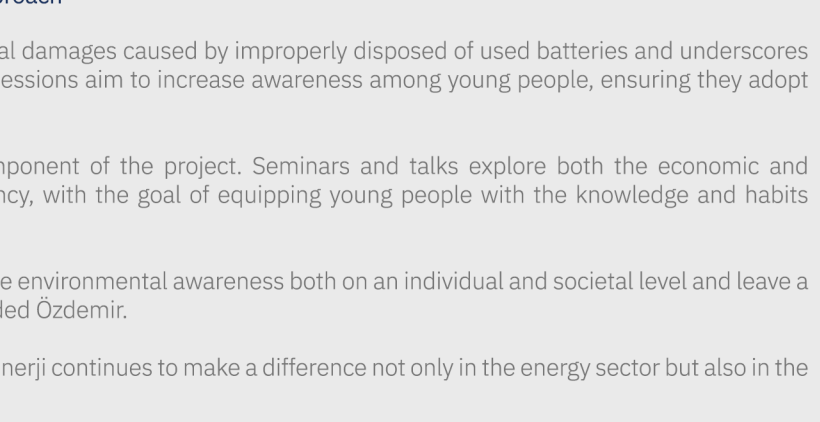
A Cleaner Future with a Zero-Waste Approach

The project addresses the environmental damages caused by improperly disposed of used batteries and underscores the importance of recycling. Interactive sessions aim to increase awareness among young people, ensuring they adopt an environmentally conscious approach.

Energy conservation is also a key component of the project. Seminars and talks explore both the economic and environmental benefits of energy efficiency, with the goal of equipping young people with the knowledge and habits necessary for a sustainable future.

"Through this project, we aim to enhance environmental awareness both on an individual and societal level and leave a cleaner world for future generations," added Özdemir.

With its innovative projects, ASPİLSAN Enerji continues to make a difference not only in the energy sector but also in the field of environmental sustainability.



RISING WITH ENERGY

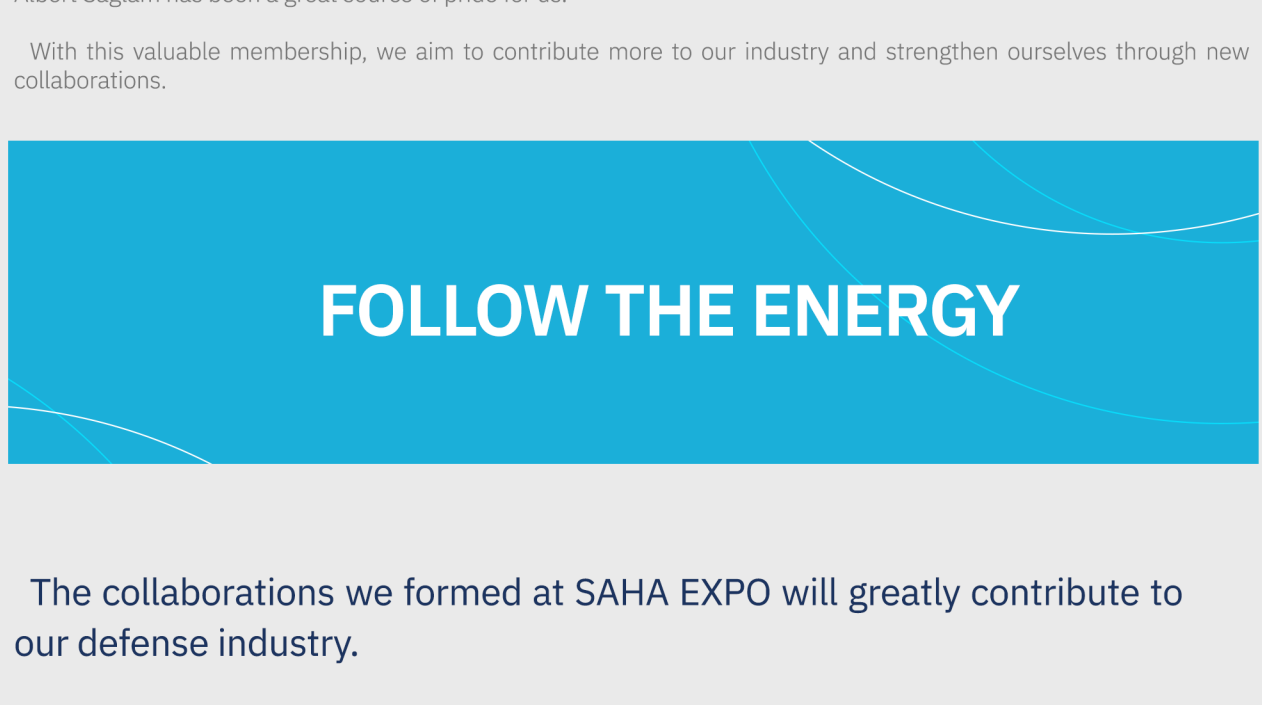
As ASPİLSAN Energy, we ranked 9th in the 2024 OSB Stars Research among the "Top Sales Growth Companies in Industrial Zones"!

We extend our deepest gratitude to all our team members, valued business partners, and loyal customers who contributed to this success. Together, we continue working to elevate Turkey's energy!

ASPİLSAN INR21700A42 WAS AT SAHA EXPO FOR THE FIRST TIME!

Turkey's first 21700 Lithium-Ion Battery, ASPİLSAN INR21700A42, was introduced at SAHA EXPO for the first time!

WE STRENGTHEN OUR POWER WITH TAYSAD MEMBERSHIP!

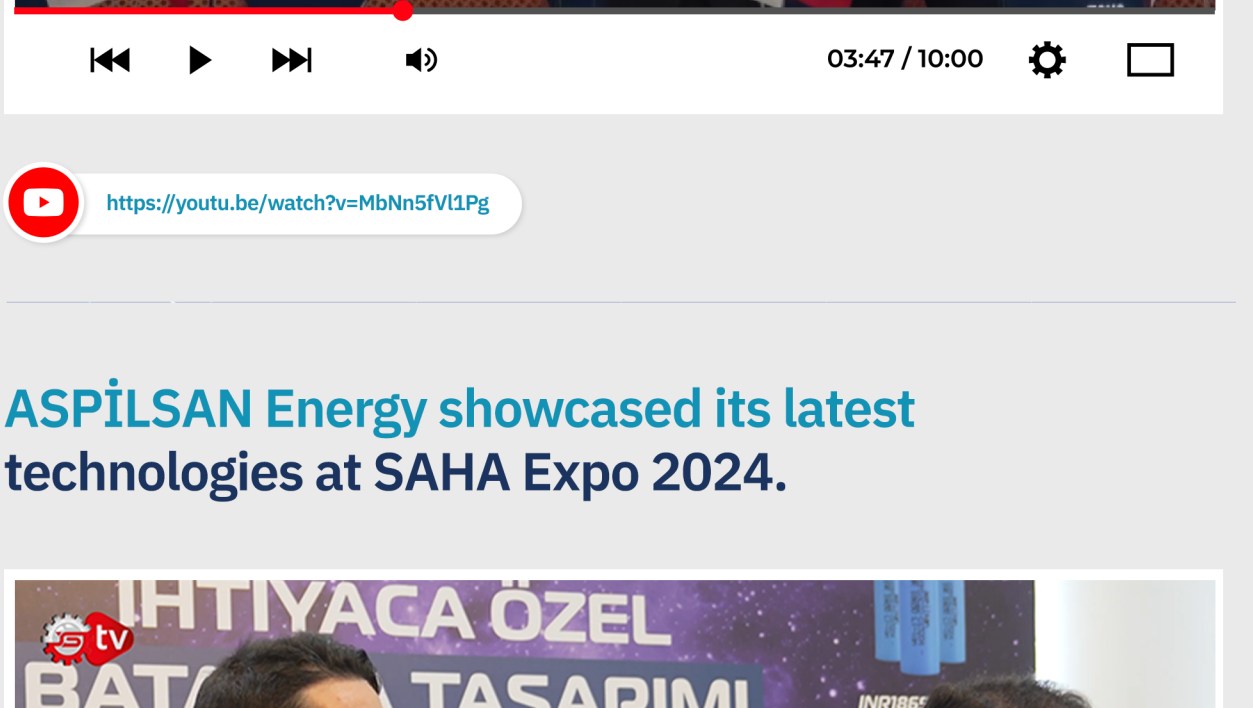


Receiving our membership certificate from Deputy Minister of Trade Mr. Ö. Volkan Ağar and TAYSAD Chairman Mr. Albert Sağlam has been a great source of pride for us.

With this valuable membership, we aim to contribute more to our industry and strengthen ourselves through new collaborations.

FOLLOW THE ENERGY

The collaborations we formed at SAHA EXPO will greatly contribute to our defense industry.



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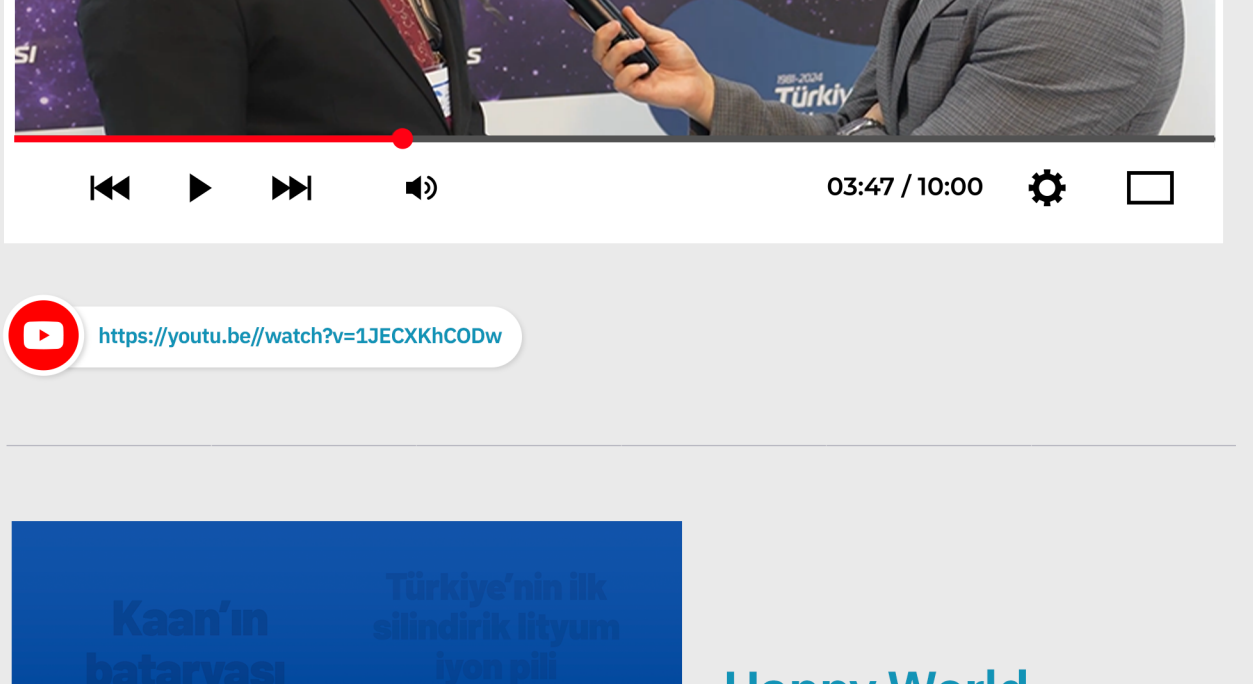
ASPİLSAN Energy showcased its latest technologies at SAHA Expo 2024.



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Happy World Engineers' Day, December 5th!

https://youtu.be/watch?v=XA29-PeEsj0

Reliable Energy, Strong Systems!

https://youtu.be/watch?v=AYy0brq2XQE

We Power the Defense of the Future!

https://youtu.be/watch?v=1b8jI380UFI