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Nearshoring electronic components manufacturing to Serbia

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Editorial Department

Dilyana Yordanova - Lead Editor
d.yordanova@tllmedia.bg ☎ (+359) 887 306 841
Lyuben Georgiev
lubo@tllmedia.bg ☎ (+359) 888 335 880
Pepa Petrunova
p.petrunova@tllmedia.bg ☎ (+359) 887 306 841

Advertising & Communications

Petya Naydenova ☎ (+359) 888 414 831
Gergana Nikolova ☎ (+359) 888 595 928
Elena Dimitrova ☎ (+359) 888 335 882
Mariya Koyadzhikova ☎ (+359) 889 256 232
reklama@tllmedia.bg

Subscription

abonament@tllmedia.bg ☎ (+359) 887306841

Publishing House

TLL® MEDIA Ltd.
104, Acad. Ivan Geshov Blvd.,
entr. A, office 9, 1612 Sofia, Bulgaria
☎ (+359) 887 306 841
e-mail: office@tllmedia.bg
www.tllmedia.bg



Nearshoring electronic components manufacturing to Serbia

As European manufacturers reassess their supply chains, Serbia is attracting attention as a location for electronic components and related industrial production. Its geographical proximity to major European manufacturing centres, established automotive industry and pool of engineering talent make it a potential alternative to more distant production locations. For companies seeking to shorten delivery times, improve supply-chain flexibility and reduce dependence on suppliers in Asia, the country offers several practical advantages. Nearshoring does not necessarily mean transferring an entire production operation. Companies can relocate selected manufacturing stages, qualify local suppliers or establish regional facilities for assembly, testing and component production while retaining their existing global supply networks. Serbia's suitability for this approach depends on the product, required production volumes and the availability of specialised suppliers.

The country already has an established electronics industry, with activity ranging from embedded electronics and printed circuit boards to wiring, connectors, switches, electrical equipment and automotive electronic systems. The Development Agency of Serbia identifies automotive electronics as a particularly important segment, supported by international manufacturers and domestic small and medium-sized enterprises.

What makes Serbia an attractive location?

One of Serbia's main advantages is its location in Southeastern Europe. Manufacturers can coordinate production with customers and suppliers in Central and Western Europe without relying on long intercontinental shipping routes. Shorter transport distances can make replenishment more predictable and facilitate closer cooperation between production engineers, purchasing teams and customers. This is particularly relevant for components that require frequent design changes, close quality supervision or delivery schedules aligned with automotive and industrial assembly lines.

Cost competitiveness is another consideration. Manufacturing expenses may be lower than in some EU member states, although the difference varies by occupation, region and production process. For electronics manufacturers, the more meaningful calculation is the overall cost of producing a compliant component, including labour, energy, transport, testing, inventory and supplier qualification. Lower wages alone do not guarantee a lower total cost.

Serbia also has a technical education base and an industrial workforce with experience in electrical engineering, automation and automotive production. International companies have established engineering and development operations alongside manufacturing facilities, creating opportunities for local teams to take on more complex tasks than basic assembly. However, competition for experienced engineers and specialised technical workers can constrain expansion, particularly where several manufacturers recruit from the same regional labour market.

Trade agreements expand export opportunities

An additional consideration is Serbia's network of trade agreements. Under its Stabilisation and Association Agreement with the European Union, qualifying Serbian-origin goods can benefit from preferential customs treatment when exported to EU markets. Serbia is also a member of the Central European Free Trade Agreement (CEFTA) and has free trade agreements with the European Free Trade Association (EFTA) states and Turkiye, among other trading partners.

For electronics manufacturers, these arrangements can support a production strategy serving several markets from one regional facility. A company manufacturing components in Serbia could supply customers in the EU while also exploring opportunities in neighbouring Balkan economies and other markets covered by applicable trade agreements. This can help diversify the customer base and make a regional production operation more commercially viable.

However, preferential access is conditional rather than automatic. The finished product must satisfy the relevant rules of origin, which determine whether it qualifies for reduced or zero customs duties. These rules may specify the permitted use of non-originating materials, the processing required in the exporting country or other

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SEE NEWS

Microchip expands L-Series with radiation-tolerant quartz oscillator



Photo: Microchip

Microchip Technology has expanded its L-Series timing portfolio with the LX-820 Radiation-Tolerant Quartz Oscillator, designed for Low Earth Orbit (LEO) and other space applications. The device aims to address satellite developers' requirements for reliable timing components while reducing procurement costs and lead times.

Housed in a compact 3,2 x 2,5 mm surface-mount package, the LX-820 operates across temperatures from -55°C to 125°C and meets MIL-PRF-55310 Level B. It delivers ±100 ppm performance, with CMOS outputs from 1,25 to 135 MHz and LVDS outputs from 100 to 250 MHz. The wider L-Series portfolio offers radiation tolerance up to 50 krad and provides an alternative to traditional high-reliability space-grade timing products.

Schmitz Cargobull to invest EUR 25 million in Romanian plant



German trailer manufacturer Schmitz Cargobull will invest at least EUR 25 million in a new production plant at Eurobusiness IV Industrial Park in Oradea, northwestern Romania. The 23 500 square metre facility will manufacture chassis sub-assemblies and assemble semi-trailers, creating 200 new jobs. Construction could start next summer, with production expected to begin in 2028, local media reported. The Oradea City Council has approved the sale of 11,75 ha of Eurobusiness IV Industrial Park land to the company for EUR 3,76 million. Schmitz Cargobull has operated an assembly facility in the city since January, following an investment of around EUR 3,5 million. With a production area of 6000 square metres, up to 80 units can be manufactured per week in single-shift operation.

product-specific conditions. This distinction is especially important in electronics manufacturing, where semiconductors, printed circuit boards and other high-value inputs may be imported from outside the region.

Companies should therefore assess the applicable customs classification and origin requirements for each product before calculating the potential savings. The European Commission's guidance on preferential rules of origin and the relevant agreement protocols provide a basis for this assessment.

Existing investments provide a foundation

Several established manufacturers illustrate the capabilities that Serbia can offer to companies considering regional electronics production. These examples demonstrate that the country can support manufacturing and engineering operations serving international markets.

The German automotive supplier Continental established an R&D centre in Novi Sad focused on vehicle interior and safety control systems. Its Serbian engineering operation has developed electronic products for major passenger-car and commercial-vehicle manufacturers. The Dutch electronics company IMI Europe also opened a design and development centre in Nis, working on electronic and mechanical design, software and product development for applications including automotive cameras, motor drives and power modules.

Another example is ZF, which has invested in engineering and production activities in Pancevo. Its operations include electric drive development and testing, as well as technologies related to electric motors and mechatronic systems.

In April 2025, Japanese company JFE Shoji opened its first European production facility in Indija. The investment, valued at more than EUR 50 million, is dedicated to motor cores used in household appliances and automotive applications. Although motor cores are not electronic components in the strict sense, their production is closely connected to the electrical and electromechanical supply chain. The project illustrates Serbia's potential to attract specialised manufacturing for European industrial customers.

Together, these investments point to an industrial base that extends beyond simple assembly. They also suggest that manufacturers may be able to combine local production with engineering, product development and testing, depending on their requirements.

Challenges beyond labour costs

Nearshoring to Serbia is not without limitations. One consideration is the availability of a sufficiently developed local supplier network. An electronics manufacturer may find qualified partners for wiring, connectors, mechanical parts and selected electronic assemblies, but still need to import semiconductors, specialised components and other critical inputs. A factory located closer to European customers does not automatically eliminate dependence on global supply chains.

Supplier qualification can also take considerable time. Electronics used in automotive, medical or other regulated applications must meet demanding requirements for quality management, traceability, testing and reliability. Smaller local suppliers may need to invest in equipment, certification and process improvements before they can meet the purchasing requirements of international manufacturers.

Logistics and customs procedures are further considerations. Serbia is not an EU member, so shipments between the country and EU markets involve customs formalities and the application of relevant trade rules. These procedures can introduce additional costs and uncertainty, particularly when components cross borders repeatedly during production. The World Bank's analysis of supply-chain relocation opportunities in Serbia has identified customs efficiency, transport connectivity, workforce skills and supplier integration as areas requiring continued improvement.

Labour availability also deserves attention. While Serbia has an established technical education system, the supply of experienced engineers and specialised production workers is not unlimited. Competition between manufacturers can increase wages and make recruitment more difficult. Investors should therefore assess workforce availability in the specific location where they intend to operate rather than rely on national averages.

Choosing the right role for Serbia

Serbia is best assessed as one possible element of a broader European manufacturing strategy, rather than as a universal replacement for Asian production. Its advantages are most relevant when proximity to customers, shorter replenishment cycles, engineering cooperation and access to an established automotive and electrical manufacturing base outweigh the costs of establishing or transferring operations.

For companies producing complex electronic assemblies or components in moderate volumes, a Serbian facility could provide a useful balance between manufacturing cost and access to European customers. Other businesses may find that retaining high-volume production in Asia while establishing a regional facility for final assembly, testing, customisation or urgent orders offers a better solution.

The decision ultimately depends on the product portfolio, supply-chain structure, customer requirements and total landed cost. A careful assessment of local suppliers, workforce availability, customs procedures and quality infrastructure is therefore essential before committing to relocation. Serbia offers a credible option for selected manufacturing activities, but the benefits of nearshoring will depend on how well the operation fits into the wider production network.



Hardware-Anchored Security, Simplified Integration

Turnkey Security Infrastructures Aligned With CRA Requirements

As connected systems grow more complex, managing device security for the entire lifecycle is as critical as protection during manufacturing and deployment. Microchip's TA101 secure authentication IC is now available in two platforms—TA101-TFLX (TrustFLEX) and TA101-TMNG (TrustMANAGER)—that simplify adoption of regulatory-aligned security.

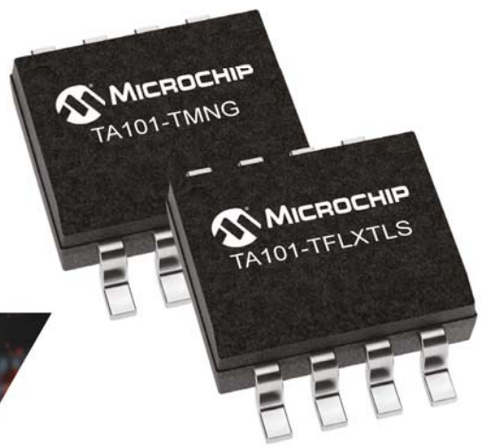
Designed for industrial, automotive, SDV and IoT applications, these solutions provide hardware-accelerated cryptography, including ECC P-521, Ed25519 and RSA-4K, alongside CRA- and IEC 62443-aligned security controls.

TA101-TFLX provides secure key storage and predefined, configurable use cases such as secure boot, device authentication and trusted communications, ideal for teams integrating the TA101 into their own PKI.

TA101-TMNG extends lifecycle control through cloud-managed services via keySTREAM SaaS, supporting remote configuration, credential provisioning, certificate rotation, ownership transfer and authenticated firmware updates eliminating the need for an in-house PKI or lifecycle infrastructure.

Key Features

- CRA-aligned device lifecycle security
- Hardware-anchored secure key storage
- Streamlined onboarding with auto-claim provisioning
- Remote key, certificate and firmware management
- Predefined and customizable security configurations
- Host-agnostic design compatible with any MCU or MPU





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Bulgaria's electricity exports surge by 62% amid rising RES generation and battery storage expansion

Bulgaria's net electricity exports increased by 62% between the start of 2026 and early October, reaching 3,5 TWh, up from 2,16 TWh over the same period a year earlier. Renewable energy sources (RES), with support from energy storage systems, have been the main drivers of the increase in electricity generation.

According to data from the Electricity System Operator (ESO), Bulgaria's electricity generation rose by 12,24%, while consumption increased by 8,45%. Renewable electricity generation reached 11,5 TWh, up by nearly 34% year on year. As a result, renewables accounted for almost 80% of the increase in the country's electricity production.

The growth in energy storage has been particularly impressive. From the beginning of the year to 4 October, battery systems supplied 1720 GWh to the electricity grid, compared with just 190 GWh a year earlier. This allows low-cost electricity generated during the day to be stored and used when demand and prices are higher.

The benefits of Bulgaria's changing energy mix were particularly evident over the summer. Despite prolonged heatwaves and low Danube water levels, which constrained nuclear and hydropower generation across the region, Bulgaria remained a net electricity exporter and kept electricity prices below those in neighbouring markets during key periods. The combination of solar power plants, battery storage and the Kozloduy Nuclear Power Plant helped Bulgaria maintain this position.

„While neighbouring markets are struggling with high prices and electricity shortages due to restrictions on their nuclear power plants and high natural gas prices, Bulgaria is generating and storing increasing amounts of its own electricity. This translates into more competitive prices for households and businesses, greater energy security and a stronger position in the regional energy market", said Nikola Gazdov, Chair of the Association for Production, Storage and Trading of Electricity (APSTE).



Solar power and batteries strengthen energy security

A clear example occurred on 8 October, when Unit 6 of the Kozloduy Nuclear Power Plant was taken offline for scheduled maintenance, while Unit 5 was operating at reduced capacity due to low Danube water levels. Despite these constraints, photovoltaic installations generated nearly 4300 MW in the early afternoon, exceeding the country's total electricity demand, which stood at 4100 MW. At the same time, batteries were charging at more than 4000 MW, storing low-cost electricity for the evening hours, when demand typically rises.

However, the expansion of solar power and battery storage alone is not enough. Solar generation declines in winter, while electricity demand increases. To ensure a larger supply of affordable domestically generated electricity during the colder months, Bulgaria needs to accelerate the development of wind power.

Since 2020, Bulgaria's installed photovoltaic capacity has grown by approximately 600%, reaching nearly 7 GW, while energy storage capacity is approaching 6 GW/17 GWh. According to APSTE estimates, investment in photovoltaic installations, battery storage and related infrastructure since 2020 has reached approximately EUR 7 billion.

In contrast, wind power development in Bulgaria has effectively stalled. The country has just 716 MW of installed wind capacity, with no new large-scale wind farm having been commissioned since 2013. By comparison, Romania has more than 3,5 GW of wind capacity, while Greece has over 6 GW. Wind power complements solar generation because its output follows different daily and seasonal patterns and can provide substantial amounts of electricity during the winter months.

„Solar power and batteries have significantly strengthened Bulgaria's energy security amid one of the most severe energy crises. This is a major achievement, but it is not enough. We need to build on this success by attracting investment in wind power plants as well. This would give us access to more affordable domestic electricity not only in the summer but also in the winter. This does not require new subsidies, but clear rules and a genuine effort to streamline procedures for bringing new capacity online", Gazdov said.

According to APSTE, Bulgaria could attract more than EUR 4 billion in additional private investment in wind power plants and energy storage systems by 2030, provided that the relevant authorities establish predictable rules and remove unnecessary administrative barriers, including those affecting projects outside designated RES acceleration areas. This would increase domestic electricity supply, strengthen competition and help make electricity more affordable.

Customers value our tailored, technically substantiated approach

Andrey Savchev, Managing Partner at Visioners Concepts Ltd., for South-East European Industrial Market



How has the robotic solutions market changed over the past 30 years, and which projects have become the hallmarks of your brand?

Thirty years ago, robotics in the food industry was still relatively uncommon. Automation was mainly used for individual, repetitive operations, particularly in packaging. Overall, however, automation was less accessible, more expensive and more difficult to implement, especially for small and medium-sized manufacturers.

Today, robots increasingly operate as part of a larger system rather than working independently. These systems incorporate machine vision, real-time monitoring, smart control and Industry 4.0 solutions. Robots are integrated with conveyor systems, packaging machines and the rest of the equipment along the production line, making manufacturing more flexible and efficient.

Our extensive experience in the food industry is one of our greatest strengths. We have an understanding of the technological processes, the specific characteristics of products, raw materials and packaging materials, as well as the requirements of different production environments. This enables us to offer technologically substantiated solutions tailored to the actual conditions in each facility.

That is why our hallmark is not one particular project, but our individual approach. Working with customers in different countries has shown us that even two manufacturers producing the same product may need completely different solutions. The reasons may relate to the process, the equipment, production capacity or simply a lack of available space. We are adhering to the same principle when working with small, medium-sized and large manufacturers: the solution must be tailored to the business, not the other way around.



Our most recognisable projects are those involving non-standard tasks, where we combine several types of robots with visual inspection and quality control in a single system. It is precisely these complex challenges that build our reputation far more than routine installations.

What remains unchanged in a typical manufacturing facility after 30 years, and what has undergone the most radical transformation?

The fundamentals of manufacturing remain the same: raw materials go in, a process takes place, and a quality product comes out. That was the case 30 years ago, and it will remain so in the future. The food industry has always required hygiene, precision and consistency, regardless of the technology used.

The most radical change has been the reduced dependence on manual labour for repetitive, physically demanding or monotonous operations, such as palletising, primary and secondary packaging, and line tending. These tasks are increasingly being handled by robots and artificial intelligence-based solutions.

I expect the role of workers to shift increasingly away from performing the tasks themselves and towards process supervision, adjustment and handling exceptions. This is particularly true of companies that invest consistently in connecting all their equipment rather than automating individual machines in isolation.

Which applications are the most demanding today, what measurable benefits does their automation deliver, and what do customers value about your approach?

Applications involving products or packaging with non-standard shapes remain among the most demanding. One example is handling irregularly shaped products before and after primary packaging. Another is mixed-SKU palletising, where different products must be combined on the same pallet.

Customers usually approach us with a specific problem. This may be a shortage of staff, particularly for physically demanding positions. It may also involve inconsistent quality in manual operations or downtime caused by an uneven production line rhythm.

The benefits of automation are direct and measurable: less downtime, lower scrap rates, consistent performance and reliably high product quality. We have completed projects that delivered performance increases of up to 25% and reduced manual operations by 98%.

Customers most often value our tailored, technologically substantiated approach. It is important to them that the solution is designed around their process, product and available space rather than being a standard package. There is also growing demand for comprehensive turnkey solutions covering everything from the initial audit to ongoing maintenance.

Which trends are driving the sector in 2026, and where is the balance between hyperautomation and human expertise?

As members of the International Federation of Robotics (IFR), we closely follow global trends. Our own projects clearly show accelerating developments in several areas: machine vision, adaptive handling, palletising, remote process monitoring and the implementation of artificial intelligence. We are receiving inquiries about these technologies with increasing frequency.

The balance between hyperautomation and human expertise lies where a task requires judgement rather than repetition. Our goal is to automate every operation that is repetitive, physically demanding or requires consistent precision under strict hygienic conditions. Workers remain responsible for process supervision, decision-making when exceptions arise and the ongoing development of processes.

VISIONERS CONCEPTS

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TiTE x IHT 2026 welcomed over 10 000 visitors on its opening day

The 2026 Taiwan International Tools & Hardware Expo x International Hardware Expo Taiwan (TiTE x IHT) took place from October 20 to 22 at the Taichung International Convention & Exhibition Center (TICEC), bringing together hardware manufacturers, international buyers, retailers and industry representatives. More than 10 000 visitor attendances were recorded on the opening day, as the exhibition demonstrated the breadth of Taiwan's hardware manufacturing capabilities and the sector's growing focus on smart technologies, international cooperation and product development.

Co-organized by the Taiwan Hand Tool Manufacturers' Association (THTMA) and Lanza International Co., Ltd., the event featured 450 exhibiting companies across more than 1000 booths on two exhibition floors. The number of booths grew by over 25% compared with the previous edition, marking an expansion despite uncertainties in global markets, tariff adjustments, exchange rate fluctuations and ongoing supply chain realignments.

The exhibition also provided an opportunity for international industrial media to connect with companies and visitors from across the sector. South-East European Industrial Market Magazine was presented at the exhibition at TLL Media's booth, introducing the publication to professionals attending the event.





Taiwan's hardware industry moves towards smart manufacturing

This year's exhibition built on the previous edition's theme, „Team Taiwan: Building New Resilience for Taiwan Manufacturing", with the new theme „Team Taiwan: From Manufacturing to Co-Creation|AI Empowerment & Smart Upgrading". The focus reflected the industry's ambitions to move beyond its established role as a manufacturing and supply partner towards closer collaboration with international customers in research, development and the creation of next-generation products.



Taiwan President Lai Ching-te attended the opening ceremony, returning to the exhibition for a second consecutive year. During the event, he recognized the contribution of the country's hand tool and hardware component manufacturers to international trade and their ability to maintain quality, resilience and reliable delivery amid changing market conditions.

The president also highlighted the need to strengthen the sector's technological capabilities. Government support for small and medium-sized enterprises adopting artificial intelligence, smart manufacturing and low-carbon solutions is intended to help local manufacturers respond to changing customer requirements and maintain their competitiveness in international markets. The broader ambition is to expand the value created through Taiwan's manufacturing expertise by developing products and technologies together with global partners.

The opening ceremony included a demonstration by visiting Australian firefighters from the Australian Firefighters Calendar, who presented Taiwan-made tools. The demonstration highlighted the importance of dependable equipment in emergency rescue operations, disaster response and infrastructure maintenance, where product performance and reliability can directly affect the outcome of critical tasks. It also drew attention to the contribution of local manufacturing capabilities to wider societal resilience.

Following the ribbon-cutting ceremony, President Lai toured the exhibition halls and met exhibitors. The opening was attended by representatives

of government, industry organizations, research institutions and international trade associations, underlining the event's role as a meeting point for Taiwan's hardware industry and its overseas partners.

Eight specialized zones present the full range of hardware manufacturing

TiTE x IHT 2026 was organized into eight specialized zones covering different stages of the hardware supply chain and a range of industrial and consumer applications. These included Tools & Accessories; Metalworking Processes & Equipment; Plant Equipment & Industrial Safety; Automotive Repair & EV Applications; Fasteners; Gardening, Agriculture & Outdoor; Building & Home Improvement; and Smart Manufacturing & Automation.

The exhibition portfolio ranged from hand tools, torque tools and testing equipment to metalworking machinery, fasteners, automotive service equipment, electric vehicle-related applications and automated warehouse solutions. The different sections allowed visitors to explore both established hardware products and technologies associated with the modernization of industrial operations.

Smart manufacturing and automation formed a dedicated part of the programme, in line with the exhibition's overarching theme. The focus on AI-enabled technologies and industrial upgrading highlighted how manufacturers are seeking to improve production processes and develop new capabilities while responding to changing expectations regarding efficiency, product performance and environmental impact.

International sourcing and business cooperation

International participation was a major component of this year's edition. Following promotional activities at six major trade fairs across Europe and Asia, the organizers invited more than 100 hosted international buyers, setting a new record for the exhibition. Representatives of major global tool brands, including Stanley Black & Decker, Snap-on and Wuerth, attended alongside buyers from leading home improvement retail groups such as Leroy Merlin, Kingfisher, OBI and Ace Hardware. More than 25 international trade media representatives were also present.

The organizers emphasized that international customers increasingly look for long-term manufacturing partners rather than suppliers focused solely on production capacity and delivery. Cooperation in product research and development, engineering and the creation of solutions tailored to specific markets is becoming an important part of these relationships.

Taiwan's manufacturing infrastructure offers opportunities for this type of cooperation. Central Taiwan has a concentrated industrial cluster linking raw material supply, forging, heat treatment and precision machining. The proximity of these capabilities allows buyers to assess products at the exhibition and arrange visits to manufacturing facilities in the region, potentially shortening the time needed to evaluate suppliers and their production capabilities.

THTMA Chairman Hsieh Wu-chi and Lanza International General Manager Andrew Liu highlighted the importance of combining the exhibition with targeted buyer invitations, business matchmaking and factory visits. These activities are intended to help international companies establish direct contacts with Taiwanese manufacturers and assess opportunities for longer-term commercial and technical partnerships.

Business matchmaking began even before the exhibition opened. A one-to-one sourcing event organized by the Taiwan Industrial Fasteners Institute (TIDA) and implemented by the Taiwan External Trade Development Council (TAITRA) brought nearly 60 international buyers together with domestic suppliers. The meetings were designed to facilitate direct discussions about sourcing requirements and were followed by visits to the exhibition and factory audits.

Global Hardware Summit explores AI and decarbonization

Alongside the exhibition, the Team Taiwan Global Hardware Summit took place on October 20 and 21 under the theme „From Resilient Manufacturing to Smart Co-Creation". The programme featured six sessions addressing



market trends, material co-creation, artificial intelligence applications and decarbonization.

The summit extended the exhibition's focus on technological development by providing a forum for industry experts to discuss changes affecting hardware manufacturers and their customers. Topics included the role of AI in industrial applications, cooperation on materials and products, and the need to adapt manufacturing practices to evolving environmental requirements.

Among the speakers was Terutaka Takeda, Vice Chairperson of the Japan DIY-HC Association, who shared insights into product selection strategies for Japanese home improvement retailers. The programme also included contributions from experts representing China Steel Corporation and leading academic institutions, bringing together perspectives from manufacturing, retail and research.



Intersolar Summit Romania 2026 highlights storage and grid integration as key priorities for solar energy

The Intersolar Summit Romania 2026 brought together more than 350 decision makers, 35 speakers, 32 sponsors and 15 partners on 13 and 14 October at the NORD Events Center in Bucharest to discuss the changing priorities of the solar energy market in Southeast Europe. Held over two days, the event featured eight conference sessions focusing on energy storage, system integration, grid resilience and the development of commercially viable renewable energy projects.

Organised by Solar Promotion International in cooperation with industry partners, including the Romanian Photovoltaic Industry Association (RPIA), the summit highlighted the shift from expanding renewable energy capacity to integrating solar generation into the wider energy system.

Experts from Romania, Bulgaria, Germany, Italy, Spain, Ukraine and other countries shared practical experience with hybrid energy projects, demonstrating how solar power, battery energy storage and digital technologies can work together.



Solar and storage increasingly developed as integrated systems

Romania has a substantial pipeline of projects combining renewable energy generation with battery energy storage systems (BESS). Rather than being developed as separate assets, solar plants and storage facilities are increasingly designed to operate as integrated systems.

Technological advances are also creating opportunities to improve project performance. Higher-efficiency photovoltaic modules and tracking systems can increase energy yields, while floating photovoltaic installations offer additional deployment options where land availability is limited. Digital solutions and improved operations and maintenance (O&M) practices further support long-term plant performance.

Reliable renewable electricity for industry and data centres

The discussions also addressed the growing importance of solar and storage for commercial and industrial (C&I) consumers. Hybrid energy systems can help businesses achieve more predictable electricity costs, strengthen energy independence and reduce emissions.

Demand for reliable renewable electricity around the clock is also increasing, driven by energy-intensive facilities such as data centres and the expansion of artificial intelligence applications and digital infrastructure. Meeting this demand requires coordinated operation of renewable generation, battery storage, flexible consumption and stable electricity grids.

Grid resilience was another major topic. Distributed generation, battery storage, microgrids and digital control systems can help maintain electricity supplies during physical disruptions and cyber incidents, while supporting faster recovery.

Financing and regional grid integration gain importance

As the solar market matures, project financing and electricity market design are also evolving. Traditional feed-in tariffs are increasingly being complemented by mechanisms that combine greater investment predictability with market-based revenues. These include power purchase agreements (PPAs), contracts for difference (CfDs) and income from flexibility markets.

Cross-border electricity infrastructure is another important factor in the development of renewable energy across Southeast Europe. Stronger interconnectors and better-integrated electricity markets can enable countries to share renewable generation and flexibility resources, ease grid congestion and improve the utilisation of solar and storage assets across the region.

„Today, it's no longer just about adding new capacity. It's about efficiently integrating solar power into the overall energy system through storage, flexible demand, and digital grids", said Dr Florian Wessendorf, Managing Director of Solar Promotion International. He added that the summit connects international expertise with regional market leaders to advance these solutions and support the development of energy projects designed for long-term performance.



Photos: Solar Promotion International

Electricity Eurasia 2027 to showcase electrical technologies and power solutions

The third edition of Electricity Eurasia will take place from 20 to 22 January 2027 at the Yenikapi – Eurasia Performance and Art Center in Istanbul, Turkiye. Dedicated to the electrical equipment industry, the exhibition will bring together manufacturers, suppliers, distributors, contractors, engineers, investors and energy sector professionals to explore new technologies and develop business partnerships. The event will be held alongside ICCI – International Energy and Environment Fair and Conference.



From power distribution to smart grids

The exhibition will cover the electrical industry's value chain, including power transmission and distribution, electrical infrastructure, protection and control systems, and energy management. Key product categories will include switchgear and components, electrical switchboards, transformers, compensation systems, cables and accessories, busbar systems, distribution line equipment, insulators, and lightning protection and earthing solutions.

Test and measurement instruments, batteries, energy storage systems, uninterruptible power supplies (UPS) and generators will also feature among the exhibits. Other areas will include electrical installation equipment, connection technologies, panels, copper and conductive materials, and polymer products.

Renewable energy and digitalisation will be additional areas of interest, with solar equipment, grid integration solutions, smart grids, inverters, frequency converters, and building and facility automation systems represented in the exhibition's product scope. Electric vehicle charging stations, smart-home applications, and electrical safety and protection equipment will further broaden the range of technologies on display. Engineering, project design, commissioning, maintenance and field services will also be covered.

Business connections and industry insights

Alongside the product showcases, Electricity Eurasia aims to facilitate business development through B2B meetings, networking opportunities and contact with potential partners from Turkiye and international markets. The accompanying programme is intended to offer insights into industry trends and technological developments through seminars, workshops and interactive sessions. By bringing together companies across the electrical equipment sector, the exhibition will provide a meeting point for exploring new products, investment opportunities and regional market connections.

Photo: TG Expo



Digital Metal & TIB 2027 will bring metalworking and industrial digitalisation together in Bucharest

Romania's industrial technology exhibition Metal Show & TIB is set to enter a new phase in May 2027, when it will adopt the name Digital Metal & TIB and an integrated format focused on the digital transformation of manufacturing. Organised by ROMEXPO, the event will take place from 11 to 14 May at the Romexpo exhibition centre in Bucharest.

The rebranding reflects growing demand for technologies that connect metalworking equipment with digital production systems, automation and data-driven manufacturing. The new concept brings together the metalworking industry and the broader industrial technology community under one brand, with shared exhibition areas and a networking programme intended to encourage partnerships across industrial sectors.

The exhibition will cover technologies for industrial automation, robotics, predictive maintenance, Industry 4.0, systems integration and production software. The programme is designed to address practical manufacturing needs, from improving production efficiency and monitoring equipment to connecting machines and controlling processes across the factory.

Live demonstrations will be a key element of the event, allowing visitors to see equipment and integrated solutions in operation and discuss their technical capabilities directly with manufacturers and technology suppliers. The exhibition is intended for production engineers, technical managers, factory directors, purchasing specialists and other professionals involved in industrial investment decisions.



By combining the two industrial communities, Digital Metal & TIB aims to create more opportunities for knowledge exchange and cooperation between equipment manufacturers, technology providers, system integrators and industrial companies. The integrated format is also intended to help visitors compare solutions from different suppliers and identify technologies relevant to their production processes.

Photo: Romexpo

WOM 2027 will bring the energy and mobility industries together in Istanbul

WOM 2027 – World of Mobility will take place from 15 to 17 April 2027 at the TUYAP Fair and Congress Center in Istanbul, Turkiye, bringing together companies and professionals from the energy and mobility sectors. The exhibition builds on the established International Petroleum Istanbul Fair, broadening its scope to reflect changes in the industries and the growing range of technologies and services shaping mobility.

Organised by Enerji Fuarcilik, the event will bring petroleum and fuel businesses together with companies active in electric mobility, charging infrastructure, energy storage and next-generation fuels. The expanded concept also encompasses non-fuel retail, vehicle washing and maintenance, mobility software, digital solutions and intelligent transportation systems. By covering these interconnected fields, WOM 2027 aims to provide an international business platform for companies operating across the evolving energy and mobility landscape. WOM 2027 is intended for businesses seeking commercial partnerships, new customers and opportunities to expand their presence in regional and international markets.



The visitor profile encompasses professionals and decision-makers from the petroleum, fuel, energy and mobility industries, as well as companies involved in related technologies and services. For visitors, the event offers an opportunity to discover new products, follow technological developments and establish contacts with companies across several interconnected sectors.

The transition from International Petroleum Istanbul to WOM – World of Mobility reflects the organiser's ambition to extend the exhibition beyond its traditional petroleum and fuel focus. Drawing on its experience in the energy industry, the event is developing into a wider meeting point for businesses addressing the changing relationship between energy supply, vehicle technologies, infrastructure and mobility services.

Photo: Enerji Fuarcilik

Microchip announces new radiation-tolerant GaN Point-of-Load converter

Microchip has introduced the POL-05-20S-T, a radiation-tolerant Point-of-Load (POL) converter designed for space processing applications. Using Gallium Nitride (GaN) power devices, the converter delivers up to 20 A of output current while providing high efficiency and power density. Housed in a compact 25 g surface-mount package measuring 1,51" x 1,51" x 0,45", the device addresses the size, power and energy constraints of increasingly capable onboard processing systems.

„Space designers are integrating increasingly powerful digital processing, creating demand for compact power solutions that can respond quickly, while operating reliably in harsh environments. The POL-05-20S-T extends our space power portfolio with a high-current GaN solution that helps customers achieve high power density, design flexibility and system-level reliability“, said Ronan Dillon, senior director of Microchip's high-reliability and RF business unit.

The POL-05-20S-T is designed for high-current, fast-transient applications, including core voltage rails for FPGAs, microcontrollers, ASICs and other processing-intensive digital loads. Its



synchronous buck topology and current-mode control support fast current transients and stable operation. The converter offers an input range of 4,75 V to 13,2 V and an adjustable output of 0,7 V to 5 V.

Designed for harsh radiation environments, the device has electrical parameters specified before and after irradiation up to a Total Ionizing Dose (TID) of 50 krad. It is also characterized for Single Event Effects (SEE) up to a Linear Energy Transfer (LET) of 43 MeV·cm^2/mg and operates at full load across temperatures from -55°C to +100°C.

Additional features include remote sensing, undervoltage and overvoltage protection, soft start, an enable pin and a power-good indication pin. Adjustable output voltage and droop regulation further support applications requiring tight voltage regulation and rapid transient response.

Photo: Microchip

EBRD provides EUR 55 million loan to decarbonise Asarel Medet's copper mining operations

The European Bank for Reconstruction and Development (EBRD) is providing a loan of up to EUR 55 million to Bulgarian copper producer Asarel Medet to finance the modernisation of its mining operations and support investments in renewable energy generation. The financing will cover sustaining and exploration capital expenditure at the company's open-pit copper mine in Panagyurishte, as well as the development of captive renewable energy generation capacity. The investments are expected to improve operational efficiency and reduce emissions associated with electricity consumption.

Around 68% of the EBRD financing will qualify as green finance, with the project's expected transition impact primarily linked to its environmental component. The operation will also support improvements in corporate governance, including the strengthening of the company's compliance policies and procedures.

„This project demonstrates how targeted financing can support the sustainable development of critical raw material supply in Europe. By combining operational improvements with renewable energy integration, Asarel Medet is advancing both competitiveness and alignment with the green transition“, said Jacqui Powell, EBRD's Managing Director for the Corporate Sector.

„Asarel is pleased to deepen its cooperation with the EBRD on a comprehensive environmental, health and safety, and social action plan aligned with the highest international standards. As a major supplier of copper to Europe's industry and energy transition, maintaining strong ESG performance is essential to our competitiveness“, said Dimitar Tsotsorkov, Chairman of the Supervisory Board at Asarel Medet. He also acknowledged the constructive support of the Bulgarian Government and the EBRD as the company continues its modernisation programme.



Danieli technology will support Stomana Industry's compact rebar coil production

Stomana Industry, part of the SIDENOR Group, has awarded Italian equipment supplier Danieli a contract to upgrade its rolling mill in Pernik, Bulgaria. The project will enable the integration of a Danieli K-Spool line relocated from the Sovel micromill in Greece and replace the existing abrasive disk saw.

Danieli's scope of supply includes two preboxes, pinch rolls, a crop/chopping shear, an eight-pass finishing block with ring manipulator, and six water boxes with associated valve benches, lubrication and hydraulic systems. The package also covers a new abrasive disk saw with a 1,6 m-diameter disk, roller tables, a short-bar collection system, a wheeled stop-on-beam, and complete electrical and automation systems, alongside engineering, training and advisory services.



The new rolling equipment will feed the relocated K-Spool line, enabling Stomana to produce compact rebars-in-coil weighing up to 3,6 t, with diameters ranging from 8 to 20 mm. The process will combine thermomechanical rolling with Danieli Soft Quenching (SQ), a patented multi-stage controlled cooling technology designed to improve metallurgical homogeneity, mechanical property consistency, dimensional stability and production repeatability.

The new abrasive disk saw will cut SBQ rounds with diameters from 20 to 130 mm and lengths from 5 to 12,1 m. Its improved bar-locking system, more powerful drive, extended disk life, faster disk changing and easier maintenance access are expected to support higher-quality and increased SBQ production.

A new automation system will integrate with the existing mill infrastructure to improve process control and operational efficiency. Together, the relocated spooling line and new saw will expand Stomana's capacity to meet growing demand for compact rebar coils and higher-quality SBQ products.

Photo: Danieli

Sandoz opens biosimilar manufacturing plant in Slovenia

Sandoz has opened a high-volume biosimilar drug substance manufacturing centre in Lendava, Slovenia, expanding its European production network and increasing its capacity to respond to demand for biologic medicines. The facility employs more than 300 specialists and incorporates smart automation and process analytical technology. It uses a quality-by-design approach throughout the process, from development to full-scale manufacturing, and was designed to meet international safety, quality and environmental standards.

The new centre adds high-volume manufacturing capabilities to Sandoz's European biosimilar network, complementing low- and medium-volume production technologies at other sites. This will allow the company to select suitable manufacturing processes for individual products and adjust production to changing market requirements.

The Lendava centre is the second major biosimilar facility Sandoz has completed in Slovenia in 2026. In June, the company opened a biosimilar development centre in Ljubljana. Sandoz has also announced an investment in commercial manufacturing capacity for low- to medium-volume production in the Slovenian capital.

The expansion supports the company's Bio100 ambition, announced recently, to have more than 100 biosimilars in its portfolio by 2040. According to Sandoz, the integrated European network is intended to improve manufacturing flexibility, strengthen supply resilience and support access to affordable biologic medicines. The investment also forms part of the company's broader strategy to reinforce its European manufacturing base and increase its capacity to meet growing demand for biosimilars.

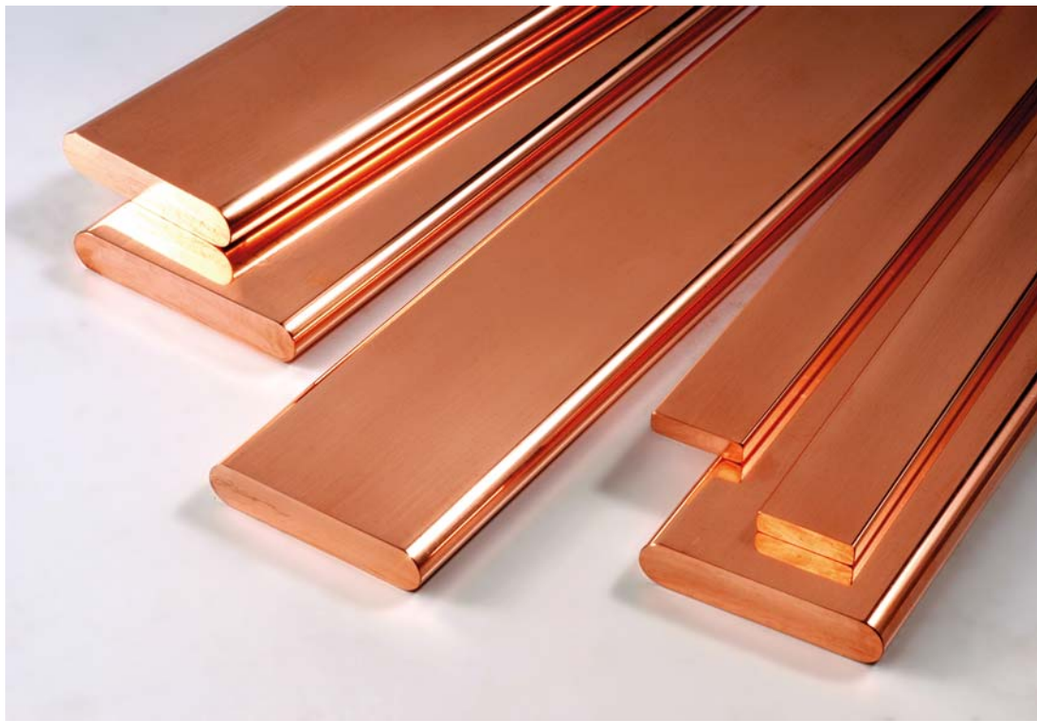


Photo: Sandoz

Sofia Med plans EUR 19,49 million copper recycling plant in Sofia

Bulgarian metallurgical manufacturer Sofia Med is preparing to develop an industrial copper recycling facility in Sofia under the SVAROG project, which aims to recover valuable materials from complex copper scrap and reduce reliance on primary raw materials. The project has passed the evaluation stage of the EU Innovation Fund's 2025 Net-Zero Technologies Call and has been invited to grant preparation, with a potential grant of up to EUR 6,20 million.

The planned investment totals approximately EUR 19,49 million. The facility will be built at Sofia Med's existing industrial site, integrating advanced recycling technologies into the company's established copper production operations.



Advanced processing for complex copper scrap

The SVAROG plant is designed to process approximately 30 000 tonnes of complex copper scrap annually, including low-grade and mixed materials that are currently underutilised or directed towards lower-value applications. Through advanced processing, the facility will produce copper with a purity exceeding 99,9%, making the recovered material suitable for use in industrial manufacturing.

The project combines sensor-based cold sorting technologies with artificial intelligence-driven optimisation of the fire-refining process. This approach is intended to improve the recovery of copper from complex scrap streams and enable more efficient utilisation of secondary raw materials.

The recovered copper will be supplied directly to Sofia Med's existing foundry, replacing a significant share of the primary copper cathodes currently used in production. By connecting recycling with its established manufacturing processes, the company aims to increase the use of secondary copper in its operations.

Reducing emissions and retaining resources in Europe

Replacing primary copper cathodes with recovered material is expected to deliver substantial climate benefits. Primary copper production generates significantly higher greenhouse gas emissions than the processing and upgrading of secondary copper scrap. According to project estimates, SVAROG is expected to prevent approximately 1,16 million tonnes of CO_2 equivalent emissions during its first ten years of operation.

Beyond its anticipated environmental impact, the investment will expand Bulgaria's industrial recycling capacity and help retain valuable copper resources within Europe. Recovering materials that might otherwise be exported or used in lower-value applications can support a more circular supply of raw materials for European manufacturers.

The project has also received the STEP Seal (Sovereignty Seal) from the European Commission under the Strategic Technologies for Europe Platform. The quality label recognises projects considered strategically important for strengthening Europe's competitiveness, resilience and technological leadership.

Through SVAROG, Sofia Med plans to link advanced material recovery with its existing industrial infrastructure, creating additional capacity to supply high-purity recycled copper to European manufacturing.

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