

RAMONA HÖNL

Smart in Slovenia: Two sisters network manufacturing

By leading their father's long-established company into a new era of digitally connected manufacturing, Sintija and Tina Križni□ have laid the groundwork for a successful future. Based in north-east Slovenia, Elpro Križni□ started out as a one-man garage-based business. Today, the company is an energy-saving smart factory – and the two sisters are pursuing a corporate strategy that focuses firmly on digitalization and sustainability.

The vision of a fully connected smart factory has always fascinated Sintija Križni□. But it wasn't until 2019 – when the young CEO and English-literature graduate paid a visit to TRUMPF's Smart Factory in Chicago – that her plans finally began to take shape. "The new era of sheet-metal fabrication was literally within my reach – and I wanted Elpro to be a part of it," says Sintija Križni□. Determined to put her plans into practice, she called on the support of her younger sister, and co-CEO, Tina.

Elpro Križni□ is headquartered in the town of Slovenska Bistrica, some 30 kilometers south-west of the regional capital Maribor. Founded in 1989 as a one-man electrical contractor, the company initially specialized in installing control cabinets and distribution boards. Over time, it steadily expanded its operations and now employs over 100 people. Company founder Ivo Križni□ – Sintija's and Tina's father – retired in 2016. But the philosophy he used to turn Elpro into a successful business continues to resonate to this day.

Garage-based business

Elpro has come a long way from its origins as a garage workshop. Today, Elpro is a sought-after partner in the energy industry and in sheet-metal fabrication, renowned for its high-quality turnkey solutions. On a plot of land at Tomaži□ eva 18 stands a 15,000-square-meter smart factory. Packed with cutting-edge equipment and innovative technologies, this pioneering facility also includes the largest STOPA storage system in south-east Europe. "We built this new environment through hard work, perseverance, and a lot of expertise," says CEO Sintija Križni□. She feels a strong affinity to these traditional values, as does her younger sister Tina, who handles the company's finances.



Connected manufacturing: Company founder Ivo Križni□ und seine Töchter Tina und Sintija (right) keep the family business on track. “We’ve moved into the digital age.”



Sought-after partner: Elpro Križni□ is a byword for high-quality turnkey solutions in sheet-metal fabrication and in the energy industry.



Welding, punching, bending: TRUMPF machines help Elpro achieve top-notch part quality, productivity, and flexibility.

Fascination with the family business

Both women took a roundabout route to their current positions as CEOs of an industrial enterprise. While studying at Maribor University, Sintija lived in a world far removed from medium- and low-voltage distribution systems in smart grids, and light years away from CNC-controlled laser cutting, bending, and punching machines! Yet the longer she spent at her father’s side, the more she became involved in the expansion of the family business, and the greater her fascination with the growth and diversification of its portfolio. Sintija stayed on at Maribor University, but she switched courses and ended up graduating with a Master of Business Administration in 2016.

Trip to U.S. seals the deal

This proved to be the start of an exciting new phase in her life. In mid-2019, Elpro was planning the construction of a new factory. This coincided with Sintija’s visit to the TRUMPF technology center in Chicago, a real-life production environment where people, machines, automation, and software work together in perfect harmony and sheet-metal fabricators can experience connected manufacturing solutions in action. On her return from the U.S., the young CEO laid the foundations for a digitally connected factory in Slovenska Bistrica. “People had been talking about digital connectivity for ages, but that trip to Chicago showed me it was already a reality. I saw with my own eyes just how far it had progressed. I realized that smart machines and systems were now capable of interacting with automated storage systems, with all the benefits that entailed,” she says.

Family-run companies are special. Their philosophy is infused with emotions, loyalty, and responsibility.

Sintija Križni□, CEO Elpro Križni□

The start of connected manufacturing

In early 2022, Elpro's smart factory started making products for its two new business units, EK metal and EK electric. Since then, shipments of a wide array of electrical components and cabinets have left the high-tech factory on a daily basis, with any spare capacity filled by job-shop orders. From welding and punching to bending, Elpro's customers benefit from high-quality, precision parts and fast throughput times, all thanks to two TruLaser 5030 fiber machines, a TruPunch 3000, a TruPunch 5000, and the TruBend 5170 and 7050 machines. Materials are loaded and unloaded automatically by a LiftMaster Compact system.

Biggest STOPA storage system in south-east Europe

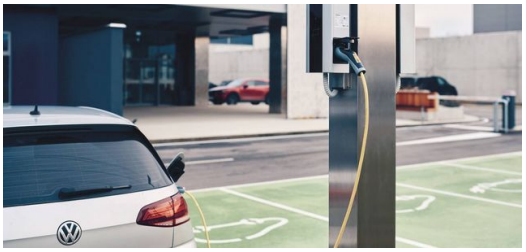
A TruMatic 7000 combines the benefits of punching and laser processing in a highly cost-effective package, and a TruBend Cell 5000 bending cell sets new standards in programming and angle measuring. These and more machines have been connected to the STOPA system since 2022. This automated storage system not only serves as a material warehouse, but also performs the complex functions of a logistics center. Operating around the clock, it provides the new smart factory's shop floor with everything required for sheet-metal fabrication.



No time to lose: Faced with an ever-increasing product mix and shorter lead times, new automation solutions play an essential role in ensuring future success.



Smart factory: Getting the new machines up and running in Slovenska Bistrica was one thing, but adopting a new shop-floor mindset was quite another! The key was getting everyone to implement the manufacturing philosophy of connected manufacturing in their day-to-day work.



Sustainable development: The charging stations for the company's vehicle fleet are powered by rooftop solar panels.

Everything running smoothly

This story wouldn't be complete without mentioning the huge effort made by the whole Elpro team to put these technical innovations into practice. It was clear that everyone needed to understand the manufacturing philosophy behind digital connectivity and be able to implement this step by step in their everyday work. Meeting this challenge required a new mindset among managers and shop-floor workers alike. "It took real fortitude and stamina to see it through," says Sintija Križni□. Now that the new processes are running smoothly, the stable operation of the facility has drawn praise from the many customers who have already toured the site. "Getting the system up and running was an incredible team effort," says Križni□. "We're really proud of what we've achieved and delighted that Elpro has completed yet another stage of its digitalization journey."

Sustainable development

Construction of the new smart factory not only boosted the company's efficiency; it also made the business more sustainable. Elpro sources most of its power from a photovoltaic system with a 750-kilowatt peak output, using batteries to store energy until it is required. The company runs a fleet of electric vehicles and allows employees to use its on-site charging stations at no charge. It also makes extremely sparing use of water and other natural resources. Elpro Križni is upbeat about its future despite the effects of ongoing global crises: "We're continuing to move our business forward with confidence," says Sintija Križni. "Elpro is determined to celebrate its 100-year anniversary in 2089, just like TRUMPF did this year!"



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SPOKESPERSON FOR MACHINE TOOLS