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## NEWS

## The Tornos Research Center celebrates its 10th anniversary

Saint-Imier/Moutier, Switzerland, March 15, 2021 - A successful partnership between Tornos and HE-Arc, the Tornos Research Center was established on January 1, 2011. The objectives and mission established at the outset remain the same: to convert innovative ideas into technologies that can be applied to the machine tools of tomorrow. Located on the premises of HE-Arc Ingénierie in Saint-Imier, Switzerland, the Tornos Research Center calls on the skills of its employees and future engineers in the fields of mechanical design and machining processes, as well as Industry 4.0 and the Internet of Things and Services, particularly in the context of the digitalization of companies. Recent collaborative projects include the brand-new version of Tornos' programming and communication software, TISIS, which is now available as TISIS i4.0.

Already in 2010, Tornos intended to support its industrial strategy with a major research and development effort enable it to launch machines offering users a competitive advantage. Indeed, as in other industrial sectors, technical developments and competition on the market are forcing manufacturers to deepen their knowledge of the scientific and technical foundations of their activities in order to better control their products' performance and broaden the spectrum of technologies to be integrated as a means of enriching the differentiating features.

However, the visionary machine tool manufacturer quickly realized the value of supplementing the internally available the skills required to carry out research and development programs with collaborative networks. Thus, in 2010, Tornos initiated plans to set up a research center located away from its flagship Moutier, Switzerland, site and hosted within an institution carrying out research activities in the field of machine tools and related technologies.

A university setting for the Tornos Research Center was an obvious choice. A fertile breeding ground and already in close contact with Tornos, HE-Arc Ingénierie emerged as the ideal solution to house such a research center. A workshop/laboratory was set up at the Saint-Imier Technology Park to house a prototype machine. The development of this machine raised new issues for Tornos and led it to call on the skills needed such as, in particular, real-time programming on a personal computer (PC) platform as well as a mechatronic approach to automatic adjustment.

The Tornos Research Center thus became a space that stimulated interaction between the industrial approach of the component designers and the systemic approach of the school's engineers and scientists, enabling everyone to learn in a "protected" way, far from the intrinsic contingencies of a machine manufacturer's workshops.

In recent years, the Tornos Research Center has made it possible to intensify synergies around the Tornos software, TISIS. The latest version, TISIS i4.0, offers users an





automated turnkey solution. The information is entered automatically into the system, without user intervention. TISIS makes it possible to view and analyze the status of any Tornos machine at any time. This intelligent software also makes it possible to monitor the efficiency of the entire workshop and to quickly take corrective measures. The improvements that accompany this new version are notable. For example, preconfigured tables can be easily used in the reports and help to increase productivity and efficiency.

Such software development would probably not have been possible without the Tornos Research Center in Saint-Imier. In fact, the structure is part of the long-term process of combining innovation, academic expertise, and market knowledge within the same entity in order to bring about reflection on major technological challenges.

The technological knowledge of Tornos employees and of HE-Arc are valued within the framework of such joint projects. The various players therefore have the opportunity to make a significant impact on the region's economy. In the Tornos Research Center's 10 years of its existence, this primary mission and vision have been confirmed and strengthened: The center, now a must in terms of innovation, significantly highlights the close relationship between Tornos and the HE-Arc and points to many more years of fruitful collaboration.



For 10 years, the Tornos Research Center has been converting innovative ideas into applicable technologies.





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## **Company profile**

Tornos Group is one of the global leaders for the development, production and distribution of Swiss-type automatic lathes and multispindle machines. The company's history dates back to 1880 and marked the beginning of Swiss-type lathe technology. The company primarily manufactures CNC sliding headstock Swiss-type automatic lathes, multispindle machines, and precision machining centers for complex parts. Tornos is headquartered in Switzerland. A worldwide sales and service network offers unique solutions to customers in the target automotive, medical and dental technology, micromechanics, and electronics industries. The Tornos Group employs around 630 persons (FTE's) in total.