

EUREKA EUROSTARS PROJECT 4269 SECURITY MECH



SAFETY IN THEATRES SAFEGUARDED BY INNOVATIVE TECHNOLOGY

In 2006, the European Commission issued directive 2006/42/EC, extending the health and safety requirements for mechanical systems like those used in theatres. Regularised by the government of the Czech Republic in 2010, 2006/42/EC required that mechanical systems would have to be subjected to risk analysis, and meet with national technical standards. This produced a problem in Eastern Europe, where many theatres – as well as testing laboratories and manufacturing plants – were using machinery that was not compatible with the new regulation.

An innovative solution was required – and one small company recognised a big opportunity. OCHI-INŽENÝRING sro, a family-run engineering business, joined with German partners ISR Industrieservice and Westsächsische Hochschule Zwickau as well as larger Czech company Bosch Rexroth CZ to research, design and test alternative systems that would put safety first. The SECURITY MECH project was ultimately successful in creating products with a certified safety integrity level of three – indicating that they would fail on demand as little as one in ten thousand times. Outperforming anything else on the local market, these safe, secure mechanical systems were soon in high demand.

One stage at a time

The SECURITY MECH project's objective was to produce new linear and rotary actuators – the motors that lift and turn the parts in an electronic-mechanical system – which would comply with national and international safety standards. Funding for this ambitious work was provided by Eurostars, an instrument supporting SME-led projects and managed jointly by the EUREKA Network and the European Union. The project was funded by the Czech Ministry of Education, Youth and Sports and the EU. Eng Otakar Ožana was Manager of OCHI's Research and Design Department at that time: "By 2010, the achievements of the Eurostars project had made us one of the five most successful Middle and Eastern European companies in our field," he enthuses.

“**By 2010, the success of the Eurostars project had made us one of the five most successful Middle and Eastern European companies in our field**

The functional systems designed by the project partners were inspected and certified by EU-notified service organisation TÜV SÜD in 2010 and 2011. Since then, sales to prominent customers, including six theatres and two metalworking plants across the Czech Republic and Poland, have generated turnover of €3.75m – and concomitantly

created tens of jobs. This success would not have been possible without the support of the diverse project consortium, which brought a range of experience to the table. As Ožana explains: "the Eurostars framework ensured that we could make optimal use of our partners and their capacity for development, planning and management."

"I must say that in terms of the technical and scientific collaboration, the exploration of new areas and the range of experimental assays, SECURITY MECH was one of the most interesting projects I ever worked on", Ožana reflects – and the innovation of this endeavour has ensured that its impact is lasting. Over the next three years, orders of €4.5m are expected based on SECURITY MECH, which also inspired many further products and ideas developed by OCHI. This success has also been a boon for Ožana himself – who was able to retire this year, leaving the company to his two sons.

For Bosch, which contributed to the project by providing specialised hardware and industrial experience, SECURITY MECH allowed for an expansion of exports to central and eastern Europe. The company expects to size 25% of the market for similar products in this geographical area.

Westsächsische Hochschule Zwickau and ISR Industrieservice where key actors in the transfer of academic knowledge and research to actual product. Both developed their know-how in terms of marketing and the production of commercial outputs.

MAIN PARTNER

OCHI-INŽENÝRING, spol sro
Czech Republic
ochi@ochi.cz
www.ochi.eu

OTHER PARTNERS

ISR Industrieservice GmbH Rodewisch
REXROTH CZ
Westsächsische Hochschule Zwickau

TOTAL R&D INVESTMENT

€ 1.29 million

DURATION

July 2008- June 2011

COUNTRIES INVOLVED



EUREKA is a European network for market-oriented R&D.



www.eurekanetwork.org