International R&D

Road to Success Innovation Benchmarking for Ciser

On behalf of one of the largest manufacturers of fasteners in Latin America, the experts of Fraunhofer IPK together with the SENAI Innovation Institute for Manufacturing Systems in Joinville have conducted an innovation benchmarking study in Europe and North America. This study identified current trends in new materials, production technology, products, services and business models in both markets and used their findings as the basis for an innovation roadmap that will shape their clients' long-term strategic planning.

Company Profile

Ciser is the largest manufacturer of fasteners in Latin America. It has a production capacity of 6,000 tons/month and 27,000 products grouped into 436 lines to supply 20,000 customers in over 20 countries. The company has approximately 1400 employees spread between Ciser, Joinville (SC), and Ciser Auto-

employees, clients and suppliers through technical courses and academic training.

Ciser Innovation Benchmarking

The company target is to be the reference in Latin America for innovative solutions, a target which acknowledges how vital it is to be fully aware of actual market condi-



Innovation Benchmarking for Ciser

motive in Sarzedo (MG). With its broad range of products, the company provides solutions for the metal-mechanical, electrical-hardware, agribusiness, automotive, white and brown goods, oil and gas industries, as well as the electronics, rail, furniture, retail and wholesale sectors. Founded in 1959, the company invests in technological innovation and carries out environmental responsibility initiatives. Ciser's distribution center in Joinville with its significant storage capacity for finished products ensures timely delivery to customers in different regions of Brazil. It has its own Technical Training Centre which aims to provide gualifications for

tions and current developments in the fastener sector. In line with this perspective, Ciser together with Fraunhofer IPK and the SENAI Innovation Institute for Manufacturing Systems (ISI-MS) has developed an innovation benchmarking project. This project shall guide and support the company in the search and application of innovative solutions of fixation with a focus on products and services.

Methodology

The main goal of the project was to develop a process for innovation benchmarking which shall guide the company in the search for, and implementation of, innovative solutions that contribute to their competitive and sustainable development. The project was divided into two phases: a first analysis and benchmarking phase involved elaboration of strategic mapping of existing products, definition of the market position, analysis of strengths and weaknesses, as well as identification of global innovation leaders through the screening of patents and trade fairs, followed by a thorough analysis of innovation mechanisms. A joint innovation workshop to define the innovation strategy for Ciser was at the heart of the second phase.

The accomplishment of these phases corroborate the achievement of the project sub-goals which are to provide an actual product portfolio and service portfolio map of Ciser and to analyze the competition in Europe, USA and Mexico. Further objectives of the project were to provide an innovation benchmarking report that focused on the new trends identified by Fraunhofer IPK and ISI-MS together with a technology roadmap for innovative ideas based on the innovation benchmarking realized. The outcome was an action roadmap for implementation of the ideas thus generated.

Execution

Phase one kicked off with a questionnaire for gathering internal data for benchmarking, followed by a two-day workshop at the Ciser factory in Joinville /SC that detailed the project objectives and analyzed Ciser's



Roadmap

status quo. This workshop generated the input required for elaboration of the Ciser product portfolio map, the service portfolio and the SWOT analysis. The next step was the innovation benchmarking and competitor analysis, which were realized separately by Fraunhofer IPK for Europe and ISI-MS for the USA and Mexico.

Phase two took place in a four-day workshop at Fraunhofer IPK in Berlin. The first steps considered the presentation of results and Industrie 4.0 immersion at the facilities of the Production Technology Center (PTZ). Step two, the innovation workshop, was based on data generated during the initial workshop, the remote analysis (innovation benchmarking and competitor analysis) and the presentation of results. The workshop was supported by an idea drawer who visualized the ideas in first prototype drawings.

Results

The innovation benchmarking realized by Fraunhofer IPK and ISI-MS identified several trends in the categories marketing, services, business models, products, materials, and manufacturing systems. The workshop team discussed the importance of the new trends identified and the readiness of Ciser to embrace each of them. This information was summarized in a technology and action roadmap that shall drive Ciser to become the largest manufacturer of fasteners in Latin America. This masterplan shall support the company in its innovation path, covering actions for strengthening Ciser and enhancing its market competitiveness.

Contact

Luiz Guilherme de Souza Schweitzer Phone: +49 30 39006-411 luiz.schweitzer@ipk.fraunhofer.de

Jan-Patrick Cap Phone: +49 30 39006-304 jan-patrick.cap@ipk.fraunhofer.de