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GIENGEN AN DER BRENZ, Germany — Wafts of golden fluff whirl in the air as Irene Basan wedges a bundle of material onto a spike and gently turns it inside out, right ear, left ear, then a snout, to reveal a Steiff teddy bear head.

She has been making Steiff toys by hand for 18 years in Giengen, the tiny south German town where the maker of collectible teddy bears - some worth hundreds of thousands of euros - was founded over 125 years ago.

Chasing lower costs, Steiff outsourced around a fifth of its production to China in 2003 but has now decided to come back because of concerns about quality and staff turnover.

Steiff is one of a small number of German companies that are swimming against the tide and leaving China, despite its lower labor costs and a burgeoning consumer population. With fuel prices at record highs, some cite mounting transport costs.

Production of Steiff toys, which include a distinctive long-limbed bear with a melancholy growl, will come back to Germany and other countries in Europe by the end of 2009.

"A Steiff animal has to look cute, it has to look at you and say, 'Take me in your arms and hug me, I'm here for you, I'm your friend,"' the managing director of Steiff, Martin Frechen, said. "If the symmetry is off and if it looks like it's been run over by a car, it's not what we want. People don't pay for that."

Consisting of around 35 parts and with an average price of €40 to €70, or about $60 to $110, the toys take up to a year to learn to make, and around 80 percent of the work is done by hand.

But with twisted legs, bald patches and open seams, a "cumbersome" number of the Steiff toys made in China had to be rejected, Frechen said, because high staff turnover in a fast-growing economy meant workers did not have long enough to train.

"We don't really fit in over there," he said, pointing out that Steiff's typical orders of around 500 lots were also too small to reap good cost savings in factories more accustomed to mass production.

Germany has been the world's largest exporter of goods since 2003, but China has been snapping at its heels for the top spot - even though Chinese manufacturing was cast in a poor light last year after Mattel, the U.S. toy maker, had to recall over 20 million toys made in

China, costing the company around $110 million.

Mattel, which produces over half its products in China, has since stood by its Chinese partners and tightened its quality checks.

But for smaller companies, such quality control is difficult to implement, said Harald Kayser, head of the China Business Group at PricewaterhouseCoopers.

"If you don't have people from your own head office in China, then it is very difficult to manage the process," he said. "Smaller companies have more problems in this area."

A Pricewaterhouse study shows that companies can save up to 50 percent making their goods in China instead of Germany, but that businesses often underestimate logistics costs.

Around a third of companies actually incurred losses by moving production east, the study showed.

The German trampoline maker Bellicon, with an annual revenue of €2 million, also says it regretted moving some production to China and has now brought it home.

"We had to do so much extra follow-up work in Germany, such as dealing with customer returns, that when we calculated it we had barely saved anything," said Heiko Schmauck, the manager.

He said the company had frequently visited its Chinese partner to try to build up a good relationship. However, once, during a six-month gap between visits, almost the entire work force at one factory had changed.

"It was no surprise the quality varied so much. New people came, the quality dropped, then they improved their skills and left," he said, adding that the Chinese-made trampoline parts did not reach high enough endurance standards.

Companies fail to take account of the total cost of business in China, including training, time delays and the monitoring of production systems, said Paul Midler, president of China Advantage, a business consultancy.

"For every foreign company that is honest with itself and admits that manufacturing in China comes with a higher cost, there are countless others that will fool themselves into thinking that they can manage it with fewer resources than it actually requires," he said.

He said Chinese manufacturing has advantages like speed and the "clustering phenomenon" where companies at all stages of the supply chain are based together, giving ready access to a network of sub-suppliers.

But some companies say higher shipping and fuel costs mean producing goods in China no longer makes good business sense.

Global oil prices have doubled in the past year. A study by Jeff Rubin and Benjamin Tal of CIBC World Markets found that over the past three years, every $1 increase in world oil prices has fed directly into a 1 percent rise in transport costs.

The German automation company Hirschmann said in a statement that it moved back production of some its electrical components to Germany from China to cut down on the distance its goods travel, but added that China still remained an important consumer market.

A study by VDI, the German engineers' association, shows one in five German companies returns to Germany after a brief foray abroad.

"This figure shows us that the 'Made in Germany' label remains a mark of quality," the president of VDI, Bruno Braun, said in a statement.

Analysts have queried the VDI figures and say there is little evidence to suggest that companies are quitting China or other emerging market countries en masse for Germany.

DIHK, the German Chambers of Industry and Commerce, which surveyed 8,000 German companies, says only around 3 percent to 5 percent of companies come back to Germany each year and around a third have ambitions to grow in China.

"It is absolutely normal that some companies fail," said Volker Treier, the DIHK chief economist.