

Cooperation

In my last article, I gave advice on finding a viable magnet supplier in China. To provide a bit of balance, I thought I should write about the future of the magnet industry in the U.S. and what might be done to save it.

A popular children's game is called Musical Chairs. Music plays as children circle a group of chairs. There is one less chair than people. The object of the game is to sit in a chair when the music stops. Each round one child and one chair are eliminated and ultimately the winner is the child who sits when just one chair remains in the final round.

Our German speaking friends call this game *Die Reise nach Jerusalem* or the Journey to Jerusalem. It is a reference to the Crusades, when many people left Europe to fight in the holy wars during the middle ages, but few returned home.

People who study the mathematics of games would call Musical Chairs a zero-sum game. Generally that means for one person to win, another must lose. There is no tie and no other possible outcome. In fact in Musical Chairs for one person to win, *everyone else must lose*. This means that if we start with a group of ten, each person has only a 10% chance of winning. While the chances for winning improve for the survivors with each round, the improvement is meager. In our example, even after eight rounds there is still only a 50% chance of winning. We also see the same idea applied in sports, when championships are determined through playoffs. A single-elimination playoff is really the same as Musical Chairs. It is also the concept used in several of the popular

“reality shows” on television; in the end we have one winner and many losers.

Many people view the U.S. magnet industry these days as a game of Musical Chairs. They take it as inevitable that periodically another company will be eliminated, which has certainly been true recently. They assume that just like the game, one company will survive at the end. In fact, in a recent conversation, someone told me that his company planned to be “the last man standing”; in other words, that they would win the game and everyone else would lose.

Is this view of the industry accurate? Is a lone survivor inevitable? I think that it could certainly play out this way, but I don't see it as inevitable. Nor do I think it is fair to assume that there will be one survivor, there may well be none. However, escaping the downward spiral or slowing the descent requires a drastic change in philosophy and business model.

In general, whenever there has been a choice between sharing information and keeping it confidential, the U.S. magnet industry invariably chooses to keep information private. The only exceptions that I've seen are limited safety information, usually when someone has been injured, and some sales and benchmarking data (a program started by Walt Benecki) through the International Magnetics Association (formerly the MMPA). Otherwise, little information flows between magnet companies.

So it is easy to understand why the Musical Chairs concept is widely accepted in the industry. It is consistent with the prevailing business models. It leads one to fight for the survival of his company and not the industry. Each company believes it has many secrets to keep and there is nothing to be gained from cooperation.

The other way to react in a survival crisis is through cooperation. There were some very striking examples of this behavior in the tsunami disaster in Southeast Asia last December. Many people risked their own lives unselfishly to save others.

But perhaps the pertinent example for this discussion is the story of nine miners rescued from a coalmine called Quecreek in western Pennsylvania in July 2002. Trapped for three days 240 feet (75 meters) underground, the miners were facing certain death. While hundreds of people worked feverishly to save them, the miners made a simple decision. They were all going to live or die together, and they would share their limited resources to survive as a group, as long as they possibly could. In a dire situation when it would have been easy to think only about one's own survival, they consciously chose to act as a group. Perhaps you recall the dramatic TV report of their rescue; each miner was lifted to safety by a cable through a very small airshaft. It was a minor miracle, made possible by cooperation.

In the second installment of the article, to appear in the fall issue, I will look at how the concept of cooperation could be applied in our industry.

For Magnetism Magazine
Summer 2005
SRT

Spontaneous Materials