



Thinking Outside the Box: Turning the Future into Revenue

At the 2006 NADCA CEO Conference, futurist Glen Hiemstra, author of *Turning the Future Into Revenue*, (John Wiley & Sons, 2006) and founder of Futurist.com, was invited to make a two-part presentation to the attendees. The program first reviewed trends shaping the future and then introduced some planning models that can be used to assess future challenges and opportunities. The following article is a summary of some of the information presented in those programs.

The Fate of Dinosaurs

In 1993, FORTUNE Magazine produced a cover story with particularly clever art work. On the cover were three mechanical dinosaurs, each with a nameplate — Sears, IBM and General Motors. Inside, the authors explored whether these three great companies had indeed become dinosaurs in danger of going extinct. The conclusion at the time was that, for each company, business as usual would be a path to eventual oblivion.

Every die casting related company and every company leader faces a challenging question in the business environment of the 21st Century. “How do I avoid ending up on the cover of FORTUNE Magazine shaped like a dinosaur?”

The answer to that question lies in the mental models and the skills of taking a long view of the future and turning the lessons learned from that long view into smart and immediate actions. Taking a long view means re-conceptualizing strategic planning, exploring the forces that shape the future and applying specific tools for effective strategic decision making. If a company does these things, it increases the chances that the future will not just run over it, but that it will shape the future. If a company does these things, it will discover how to turn the future into revenue.

Re-conceptualizing Strategic Planning

Strategic planning got a bad name in the late 1990s. At the height of a booming economy living on Internet time, it came to be believed that planning was dead, that things

changed too quickly and that the secret to success was in speed and agility. The idea of taking a longer view, never that popular from the start, fell into even greater disuse.

Moreover, every business leader has experience with the typical planning exercise. A three-day retreat is planned, some of it devoted to golf. Presentations are made on company performance against past goals. Threats and opportunities on the horizon in the next year or two or three are discussed. New goals are set. Assignments are made to flesh them out and to propose tactics to accomplish the goals. Done. Everyone breathes a sigh of relief, and someone says, “Man, am I glad that is over. Now we can get back to work.” And the new goals, as often as not, are never heard of again, at least not until the next retreat.

If a company is small, the time and money for even that exercise never seems to be available. The daily grind becomes the plan, and everyone hopes that will be good enough and fast enough if things change.

Strategic planning, as practiced or as ignored, is neither very strategic, nor very effective planning. Effective long range planning, on the other hand, has three separate phases: first, strategic thinking, which involves a deep exploration of the future beyond the standard horizon; secondly, strategic decision making, which involves making a decision to pursue a direction that will make a company different and better and more successful; finally, there is planning, which is developing very short term winning steps that move the company in the new and preferred direction.

In a recent seminar with NADCA CEOs, this approach to shaping the preferred future for a company was explored.

Strategic Thinking – The Futuring Step

There are many paradoxes in the future. The world is changing quickly. Nothing seems to change. Technology will make die casting obsolete. Technology will make die casting more robust and useful than ever. Foreign competition will kill North American industry. Global development will open major new markets and opportunities...and so on. If

people never look up, and out, they will be constantly surprised by the interplay of these paradoxes. So, the first task to effective long range planning is to take a wide-angle and long range look at the future.

Two leading thinkers on strategic planning, Gary Hamel and C.K. Prahalad, once argued that senior leaders in companies ought to devote 20 percent of their time to developing a shared picture of the long range future. How long is long range? It is more than five years for sure and more likely a decade or two ahead. The task is not to accurately guess what the world will be like in ten or twenty years, and it is certainly not to figure out what the company will be doing that far ahead. Instead, the task is to use a long term view to boost creativity and to inoculate a company against surprises.

If effort is made at such long range strategic thinking, what are some things that are seen of interest to the die casting enterprise? Here is a sample.

Population Trends

North American baby boomers are hitting their 60s. Soon, there will be some 40 million more people in that age bracket. Behind them comes Generation X, many millions smaller in size. More boomers than thought will lack sufficient pensions and finances to support a robust retirement. They will need to work, want to work, for a while longer. And, they are productive. Yet, a company is more likely to have HR policies designed to move them out of the workforce earlier, rather than keep them longer. This needs to change in the next five years or so.

Behind GenX come the “digital natives.” This is a huge group of young people, born since the early 1980s. They grew up with computers, the Internet, iPods, multitasking, always being connected. They will take the information tech revolution beyond our imaginations. If a company sees this, they will leverage this to become more technologically sophisticated. The digital native population is becoming global quickly, too, as the whole world gets plugged in. This dissolves boundaries and barriers to the movement of work, products and ideas. Outsourcing, insourcing, finding the right way and place to do things become more imperative.

Information Technology

Speaking of IT, the true revolution in information is just beginning, despite all that has happened since 1990. A cell phone today has the computing power of a desktop in 2000. While no one can say when true artificial intelligence will emerge, we can see intelligence amplification at work each day. Each process, each piece of equipment, each product gets more intelligent. Think of it as adding knowledge to everything you do and make. Advantage goes to the product and the process that have the most knowledge imbedded in them, knowledge that the customer can see and access.

Robotics

Remember 1978, when the personal computer was new? A few people owned Apple computers — there were some

from Radio Shack — and so on. Thirty years later, everyone owns several, many in fact if their car, microwave and so on are included. Today, more than a million industrial robots, and twice as many personal robots (Roomba, Scooba, and others), do their specialized tasks. In 30 years, everyone will own many robots, and most all repetitive and precision processes will use them.

Nanotechnology

No technological development will change die casting more. This is not to say die casting will be replaced. What is nanotech? Two things. First, the ability to see into the molecular and atomic structure of materials as they are made and worked with. Secondly, potentially, the ability to build novel materials from the ground up, atom by atom or molecule by molecule. If the ability to do the latter ever emerges, all manufacturing may change in the blink of an eye. But molecular manufacturing is very hard, and, if possible at all, probably decades away. However, die casting is already being profoundly changed by the first nanotech ability, that of seeing inside matter as it is made. Understanding and manipulating the crystalline structure of die cast metals and alloys means more precision and the ability to make larger structures as well as finer structures. Efficiencies such as these mean the industry is served by embracing nanotech, even beginning to label certain products the result of nanotechnology processes.

China, and the World

The world has never seen anything like China. Here is a country with 1.3 billion people, a 10-12 percent annual economic growth rate, graduating five times as many from college as the U.S. and graduating at least twice as many engineers. It is a country in which there are more English speakers than live in North America. And most of all, a country intent not on racing North American workers to the bottom, but racing North American companies to the top. They have every desire to become the science and technology leaders of the mid-21st Century and to build the companies that everyone wants to work for. They are joined by India and by others with less success but similar dreams — Russia, Brazil and others.

These countries, especially China and India, present die casters with another paradox of the future, tremendous competition, tremendous opportunity. Learning to work with, through and — when necessary — in competition with these international players will be a core competency for company leaders for the foreseeable future.

Climate Crisis and Energy Transitions

The year 2006 marked a turning point in our general views of two long talked about issues, global warming and the next energy era. In both cases, it can be persuasively argued that the conversation changed this year from “are these things real” to “what can we do to deal with these issues?”

The climate crisis is real. Twenty of the 21 hottest years on record have occurred in the past 25 years.

Each year now, it seems, new records are set, more forests teeter on the edge of ecological disaster, ice in the Arctic shrinks in size and thickness, wilder storms are witnessed and so on. Measurements of CO₂ and other green house gases confirm rising levels, associated with modern industrial life and the burning of fossil fuels. And so, responding logically, cities, industries and companies have begun to ask how they can become more efficient in their energy use in order to reduce carbon output and, by the way, improve the bottom line through efficiencies.

At the same time, the end of the era of cheap oil is at hand. The new floor price for oil of approximately \$50 is twice as high as industry has been accustomed to for decades. Current prices are much higher, of course. While debate is sharp about whether a peak in cheap oil availability is near, fewer and fewer experts argue that a return to \$25 oil is likely. Thus, alternatives become both more price-competitive and attractive environmentally. The list really is impressive when one considers not just the risks but the economic opportunity and the need for new materials of many kinds that can come from the die casting industry. Here is a short list from *Turning the Future into Revenue* of energy innovations, most with potential interest to the die cast industry:

“Wind power, flexible solar voltaics, sterling engines, nanosolar, biomass, biotech to produce hydrogen, redesign and retrofitting of cities away from exurbia and to the center, green architecture, energy efficiency, LED lighting systems to replace both incandescent and vapor lamps, on-demand hot water, insulation, carbon sequestration, carbon nanotube heat pumps, hybrid cars, super light weight carbon composite and light weight steel cars running on hybrid or even small fuel cells, mass transit, sidewalk construction, bicycles, power assisted bicycles, plug in hybrid vehicles, better batteries, nano batteries, software for energy management, distributed power generation of all kinds, intelligent HVAC, software for selling power back to the grid, replacing the old electricity grid with an intelligent grid, smart appliances, co-generation, on-site hydrogen fuel cells, and ocean energy systems...” (p.194)

Scenario Planning

How in the world does the leadership of a company make sense of complex future trends and issues? One way is to adopt the regular use of a planning tool called scenario planning. In use by businesses for three decades or so, this tool recognizes the uncertain nature of the future and enables strategic thinking that is not fixed on one idea or one forecast. Rather, several plausible “histories of the future” are developed and explored. For each scenario, differing assumptions are made and triggers that may indicate that a particular scenario is beginning to unfold in reality are identified. Potential company responses are catalogued. Then, as the future becomes the present, the company is better able to stay competitively positioned and to avoid complete surprises.

Strategic Decision Making

Strategic thinking, the development of future images through scenario planning and other tools, is just the first of three actions vital to long-range planning success. The second action is generally the most difficult — strategic decision making. It is difficult because one must actually decide on a direction — whether that direction is labeled a vision, a mission or a strategy. At the same time, remaining agile and flexible enough to change directions overnight is part of the game plan. There are no permanent visions or forever strategies.

The Planning Part of Strategic Planning — The First Winning Steps

The third and final step in effective long range planning is not long range at all. People often make the mistake of trying to outline specific steps to be taken too far into the future. Having done the best strategic thinking that one can and made a strategic decision, action planning is very short term, on the order of six weeks to six months. The task is simple. Ask, “What actions that we will otherwise not do are necessary in the near term to begin aiming us toward the strategic direction we have chosen?” That’s it. If a company knows where it is, where it would like to end up, and what it is doing next, it has a potentially powerful long range plan, even though it may be much simpler on paper than ever imagined.

Turning the Future into Revenue

The next decade or two for the die cast industry will see greater challenges, more change and greater opportunity than any previous period in history. That seems a pretty safe statement. Those who can think outside the traditional boxes and engage in effective long range planning and short term action will be the ones to turn the future into revenue.

About the Author

*Glen Hiemstra is the founder and owner of Futurist.com. An internationally respected futurist, he has advised professional, business and governmental organizations for two decades. He had a book published in August 2006 by John Wiley & Sons **Turning the Future into Revenue**. Previously he co-authored **Strategic Leadership: Achieving Your Preferred Future**. In a first career, Glen was an award-winning educator at Whitworth College and serves as a Visiting Scholar at the Human Interface Technology Lab at the University of Washington, which works on virtual and augmented reality technology.*

