

## PLAN GLOBALLY, ACT LOCALLY

In this competitive world, to learn to do more with less is very essential. By applying right strategies, products can be manufactured that deliver higher performance at a lower price...



■ Peter Hall, Managing Director, Haas Automation, Europe

**A**s a leading machine tool manufacturer supplying directly or indirectly to all global manufacturing industries, one must conclude from the rapidly developing global business environment, that the near- to mid-term business trends are extremely positive.

There are a number of significant factors that are driving growth around the world. The paradigm-shifting information technologies, such as satellite communications, the Internet, exceedingly capable and low-cost electronic equipment and powerful software, enable instant transfer of business-relevant information and technology to any point in the world.

With relative ease, companies can transfer manufacturing to regions with the lowest global labour cost.

State-of-the-art manufacturing equipment, automation and technology also are, to a very large extent, easily transferable. This results in demand for machine tools and other complex manufacturing equipment in emerging and developing markets, such as China, India, Brazil and many more.

Where technology and automation can eliminate manual labour, then perhaps high-value-added manufacturing will remain in the 'high-cost' countries. Otherwise, high-volume, labour-intensive manufacturing, at least, will

migrate to such relatively low-cost labour countries as China and India.

However, this is a two-edged sword. While the poorer countries with large populations can offer production of low-cost products for the wealthier countries to consume, their own populations' living standards and expectations rise rapidly as a result; hence, they become higher-level consumers also, and differences in labour costs eventually narrow.

### Global picture

The combined effect of rapidly rising manufacturing capabilities of the low-cost, high-population countries and rapidly rising consumption of the 'poorer peoples of the world', bodes well for global business as a whole, despite several generations of 'dislocation' as wealth creation evens out somewhat around the world. There is definitely a considerable amount of concern and discomfort in the higher-cost regions of the world, such as the USA and Europe, concerning the jobs that are migrating to the 'low-cost' countries, and the resulting large trade imbalances.

However, there is a dark side! There will be ever-increasing pressures on supplies of raw materials, and in particular for energy and water. Only time will tell. In several hundred years, there will be no doubt if mankind is already in the declining phase of our species, or whether there is still time to rescue ourselves from extinction. From present data, there is no doubt that mankind cannot continue with unlimited population growth and unlimited use of the world's resources using current technologies.

The continued existence of mankind depends on the ability of scientists, engineers, technologists and manufacturers to design, develop and manufacture technologies and products that enable a sustainable existence. This will mean new technologies and products

that produce and use energy in an environmentally benign and renewable manner. The use of the world's resources for the needs of the entire global population must be in a 'net-zero-environmental-impact' manner.

What does this mean for global business and manufacturing? It means paradigm-shifting new technologies and products that provide the entire global population with much more, while having much less impact on ecological and global resources. This means retooling the world to use different products in our everyday lives – i.e., a huge amount of change, bringing with it many new business opportunities and a huge spectrum of new manufacturing demands.

The more-developed, advanced, high-cost nations are well aware of the need for change in all areas that affect the environment, and it is from these sources that we can expect new environmentally friendly technologies and products to be developed, providing many new regional business opportunities and employment. As we say in the machine tool industry: Everything on earth, unless it grows by nature alone, unaided by man, is only two or three steps from a machine tool. Mankind depends on manufacturing.

### Looking forward

Our vision is to become the largest supplier of CNC machine tools in its global market niche. To accomplish this while manufacturing in a high-cost region of the world like California, is a considerable challenge. Thus far, we have achieved a very impressive growth in the North American market, and are currently duplicating that growth in global markets. The formula is intrinsic to the Haas culture: Build innovative and simple CNC machine tools that are both very reliable and provide excellent performance, and sell them at very reasonable

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prices to meet the needs of the largest global user of machine tools – small to medium companies and job shops. This is accomplished through a high-volume, very consistent and controlled process approach to manufacturing machine tools.

Clearly, the challenge in the global economy, with the many competitors from lower-cost manufacturing regions, is to continue growing in a profitable manner. Since Haas designs and manufactures its entire product range itself – as opposed to the model of buying complete machines from the lowest-cost manufacturing sources around the world and simply ‘badging’ them, as many competitive brand names do – it is necessary to manufacture in a very efficient and productive manner.

Although it may be considered somewhat difficult for the manufacturing industry to follow the ‘Moore’s Law’ of the electronics industry, it is not unreasonable to expect a similar parallel for many products under development for near term needs. The net result of new technologies, innovative designs, new materials and process optimisations can, indeed, result in a correlation with Moore’s Law in terms of price/performance/energy use/materials employed/ total resources required and overall carbon footprint.

### Best applications

Haas Automation’s growth and success in a rather old, established and conservative industry is a result of simply doing what makes sense for any business, in all aspects of operations, without any regard for typical industry traditions and culture. A ‘best-practice’ and ‘continuous-improvement’ approach is taken to every aspect of the business. Every aspect of the business is measured, compared, correlated and trended to track performance and ensure continuous improvement.

“Astute customers globally eventually recognise that the focus should not be just on the price of a product, but rather on the total value proposition”

### Beating the competition in global market

The developing countries have the distinct advantage of being able to leapfrog many decades of technology, and take full advantage of the latest technologies, which, in most cases, are many orders more productive than previous technologies. For example, why bother with expensive telephone and cable systems, when you can jump straight to wireless and satellite communications.

The advantage of low-cost human labour will not last forever, and the best direction for any developing nation to take is to invest in training and education of its workforce, particularly in the engineering, technical and manufacturing technologies. There is a severe global shortage of well-trained and experienced technologists for all manufacturing industries. India, in particular, could become a global source for exporting of technical talent, in addition to supplying for its own needs.

As India celebrates 60 years of freedom from Britain’s rule, it should contemplate the lost opportunity of the past 60 years. India, as the world’s largest democracy, with an abundance of well-educated, English-speaking people, should, by this time, have been far ahead of China, which was held back by the oppression of communism for many decades. Hopefully, the leaders of India will finally develop a business environment with the appropriate infrastructure that encourages global manufacturers to invest. This would enable India to become a very viable alternative and counterbalance to China as the world’s workshop – for high-volume consumer goods at least.

For each individual customer, their interests are the most important, so the best tip for global business is to think and plan globally, but to act locally. **2.0**