

Innovation Index 2008

“The true creator is necessity, who is the mother of our invention.” Plato

The Greek author and philosopher Plato lived and worked in Athens from 427 to 347BC, but his words ring true today. The current economic environment has caused many of our tried and true approaches to economic development to be put on the shelf, at least for awhile...maybe for a good long while. Business recruitment and plant expansion can no longer be taken for granted, due only to there being more and more low wage locations or customers with money to spend and an insatiable appetite for new things. Consumers and corporate CEO's are wary now, preferring to wait and see, before spending what remains of their hard earned money. So what do we do, those of us who are concerned about our state's economy, those of us who are responsible for the development of regional economies, communities and metro areas? Do we also sit on the shelf until the day comes when our tried and true approaches once again become relevant? We need a plan!

“Lean years are not just punctuation between periods of fat years. They are the discipline years when civilization consolidates its gains and invents its way out of trouble. In the long now, THESE are the good years. Don't waste them.” Stewart Brand

“Where there is no vision, the people perish.” Proverbs 29:18

Never has it been more important to have a renewed vision and a creative plan for economic development. I suggest that a new economic development vision is called for, and that it must have innovation as one of its key strategies for reestablishing and sustaining economic growth. In past issues of *Pointe Innovation* we have outlined the ways that innovation drives economic growth (Spring 2003), how strategies for innovation and technology-based economic development can be accomplished (Summer, 2005 and Summer 2007), the differences between economic growth and economic development (Summer 2006). Suffice it to say: experts with greater minds than mine all agreed a long time ago that the creation and diffusion of technological innovation is at the heart of economic growth and development, and it is more important than accumulation of physical capital in explaining the rise of output per worker in advanced countries (*Abramovitz, 1993; Denison, 1962, 1967; Kendrick & Grossman 1980; Porter & Stern, 1999; Romer, 1990; Schmookler, 1966; Schumpeter, 1942; Solow, 1957*).

In other words, innovation produces the “next new thing” and that spurs competition, investment in new equipment, education and hiring of qualified employees. Innovation is like yeast in bread making. Successful bread making does not result from the flour or the eggs or the milk – the obvious ingredients – but from the yeast that catalyzes the mixture and causes the bread to rise. In a similar way, innovation, a/k/a human ingenuity, will be the path out of the current economic situation. Now is the time for leaders of states, regions, metro areas, and communities of all sizes to take a long hard look at their assets, their sources for creativity and technological innovation, the infrastructure that supports taking ideas from discovery to the market place, and develop a vision for innovation-led

economic development. The good news is that we've been tracking goals and performance related to this type of economic development infrastructure for seven years now.

The *Mississippi Innovation Index* focuses attention on the process of innovation and some of the many activities that government, academia and the private sector organizations engage in that support innovation-led economic development. Activities from basic research to commercialization and investment capital set the stage for innovation by enabling the creative process and making its products available for commercial uses. Scientific researchers in universities, federal labs and private industry work to discover new ways to combine raw materials. As a result of their efforts, new materials and processes become available for commercial uses. Investors support the creation of new companies and help existing businesses expand. Innovation is the life force of the this type of economic development

Mississippi innovation goals

Back in 2003 Mississippi academic, government and private sector leaders identified eight broad areas to measure, monitor and promote an innovation system in our state – like the series of readings a doctor might take to check vital signs. Just as heart rate and blood pressure are two important indicators for human health, R&D expenditures and investment capital are indicators of a healthy, dynamic economy. Table 1 shows the eight innovation goals used to measure activity and track performance, performance levels achieved over the last seven years, and comments about the 2008 Innovation Index data.

Shared outcomes

It might look complicated, but all these different activities can work together to create a dynamic system that drives innovation. Like any system, many people share responsibilities for achieving these outcomes. Just like a rowing team practices a steady, even pull on their oars, every organization within our innovation system needs to be in synch and pulling in the same direction toward these goals. That only happens as a result of having a shared vision, a plan and then following it up with constant communication and coordination. Oh, and did I mention mutual respect?

Imagine this: A science or engineering graduate from one of MS universities gets a job with a MS company. While there he or she develops a new tool, or material, or process. With the support of the firm, a new company is formed to further develop the technology. The entrepreneurs get assistance from the team at MTA, universities, Small Business Development Centers, the Mississippi Development Authority, and others to conduct market research, build an operating structure, and eventually attract the attention of private investors. With funds invested, they develop prototypes, marketing strategies, distribution channels, and production processes. In time, such a company will begin hiring workers to produce products; they will pay taxes and enjoy a quality of life that can be found only in Mississippi. Imagine that!

This is the vision that MTA and our partners around the state work toward every day. Other states have done it; think Oklahoma, Kansas, North Carolina, Georgia. Some are redoubling their efforts now, as traditional “economic hunting” approaches become less attractive. Arkansas just released a new strategic plan for economic development that recommends a shift away from traditional business recruitment strategies toward support for entrepreneurs, especially those from knowledge-intensive industries. We can do this too. These are the good years, don’t waste them.

Updated data for the Innovation Index goals and 24 additional indicators of science and technology activity are now available at www.innovationindex.ms. For more information or comments about the Mississippi Innovation Index, contact Lyn Stabler, lstabler@technologyalliance.ms.