Review of Technology & Economic Development

WHY TECHNOPOLIS TIMES?

"I have really enjoyed [the newsletter]! Interesting, insightful, and useful." - Gordon Hoffman, Managing Director, Northwest Technology Ventures

Technology jobs are driving economic growth, and these jobs locate in metropolitan regions – not nations, states, or provinces. Sometimes these growth regions cross state and national borders. Only *Technopolis Times* gives you current, need-to-know news and resources for economic development with a specific and exclusive focus on:

Technology-driven industries in

Metro regions and citistates.

IN THIS ISSUE:

OUR BOO-BOO, BUT YOU CAN STILL READ THE FALL, 2004 ISSUE

Did you miss the excellent Fall, 2004 edition of *Review of Technology & Economic Development?* Many email servers bounced back our PDF file transmission of the Fall edition. If you did not receive it (it was sent in November), it's waiting for you on the web at http://www.generalinformatics.com/technopolistimes.html - worldwide.

EUROBLOG PROVES POPULAR

Since moving Technopolis Times' HQ to Europe, we have created a blog (part travelogue and part political observation) that has drawn compliments, groans and raves. Would you like to be notified of new postings? Send email. *Warning:* This informal journal occasionally descends to travel snapshots and other vulgarities. If you're sensitive about such matters, do not subscribe.

NEWS & TRENDS

Quick Takes

Quick but enormously important: What will it do to your real estate market?
"Electrical Engineers' median income declines for first time since '72"
http://newsletter.eetimes.com/cgi-bin4/DM/y/elKv0GKNt80FrK0C5dT0AR

"Electronics to Play Greater Role in Our Lives"
http://email.electronicnews.com/cgi-bin2/DM/y/ekJW0Eigbz0DbD0CNiI0AT

"EU Delay on Patents Will Cost Jobs, Say Trade Bodies"
http://email.electronicnews.com/cgi-bin2/DM/y/ekJW0Eigbz0DbD0CNiL0AW

Insider location secrets: Why did Open Source Development Laboratory choose Beaverton, Oregon? OSDL CEO Stuart Cohen says it was:
- o Equidistant from Japan and Europe
- o Intel, IBM and Linux honchos happened to be nearby
- o Heavy Linux usage at Sequent, Tektronix, Mentor Graphics, Radisys, etc.
- o Convenient for Linus Torvalds' commute from Silicon Valley

World News

Outsourcing Watch: How could it have turned out otherwise? Indian firms are now outsourcing to China. The big winner is Shanghai, with about 350 jobs expected at Tata, Infosys, Satyam and Wipro. Beijing and Hangzhou will also benefit. The Indian firms want to be closer to US, European and Japanese clients who are active in China. English-language ability among Chinese engineers is improving, and Chinese road and power supply infrastructure can be superior to India's (Rebecca Buckman, "Indian software firms tap China's labor market." *Wall Street Journal* European edition, December 23-27, 2004, A2.)

The Philippines has begun to attract many North American firms' outsourcing. "The Philippines, as opposed to India, has a much more North America-centric culture," says a Canadian executive. "The accent is not as thick, the way of doing business is much more like America and their sports and media are similar. Their favorite sport is basketball." The Philippines Economic Zone Authority (PEZA) manages special economic zones offering tax breaks and other incentives of interest to outsourcers (http://www.siteselection.com/).

For an amusing and useful guide to US-India differences in English usage, see http://comment.cio.com/weighin/112904.html. The same site details how outsourcing of customer services can erode the commitment of remaining home-country service employees, http://www.cio.com/120104/hs_management.html.

Regional News

Maastricht named best city in the Netherlands
A survey of citizens of the sixty largest municipalities of the Netherlands results in Maastricht being named the best city to live in, and its mayor the best mayor in the Netherlands. http://www.nu.nl/news.jsp?n=458242&c=12

Liege's Information Society (Meuse-Rhine Journal, November 17)
There will be six business breakfasts held by the Liège (Belgium) TIC Technifutur organization to acquaint people with IT. http://www.forumtelecom.org/

Austin's Information assurance and security center at University of Texas.
UT-Austin's new Center for Information Assurance and Security (CIAS) will address the nation's growing cybersecurity problems. Dr. Frederick Chang directs CIAS. Chang, who also chairs the board of the Austin Technology Council (an organization founded by the editor of the *Review of Technology & Economic Development* you are now reading), recently moved from his position as president of technology strategy for SBC Communications to the university's Department of Computer Sciences to lead the center's efforts. For more information about the Center for Information Assurance and Security, contact Nancy Paul Hatchett at nph@cs.utexas.edu or 512-471-9793.
http://www.utexas.edu/opa/news/04newsreleases/nr_200411/nr_nat_sci_security04 1130.html?AddInterest=1284
We hope CIAS will make contact with OregonRAINS http://www.rainsnet.org/; see the fall issue of *Review of Technology & Economic Development*.
In a related story (by Grant Gross), "Tech groups praise parts of intelligence bill, but they still want the government's lead cybersecurity job elevated." The intelligence reform bill that passed the U.S. Congress could speed up the federal security clearance process for IT vendors and contractors. It was, however, stripped of language that would have elevated the lead cybersecurity position at the U.S. Department of Homeland Security to an assistant secretary-level position.
http://www.computerworld.com/governmenttopics/government/legislation/story/0,1 0801,98154,00.html?source=NLT_PM&nid=98154

Dresden's Silicon Saxony. The Dresden area is growing clusters in nano-technology, distribution and microprocessors. AMD's wafer fab in Dresden, opened in 2000, employs 1,000 people. A planned second plant will bring AMD's Dresden headcount to 2,000 and will produce 300-mm. wafers for next-generation microprocessors. Infineon Technologies also operates a 300-mm. plant in Dresden, and will soon produce memory chips there as well. The two manufacturers will invest EUR170 million in research at the new Dresden Center for Nanoelectronic Technology over the next five years. Germany's Federal Ministry of Education and Research, the State of Saxony and the Fraunhofer-Gesellschaft are partners in the center.
The city of Dresden boasts the highest concentration of public R&D institutes in Germany. It is home to more than 750 companies in the microelectronics and ICT industries. Advanced Micro Devices (AMD), BASF Coatings, plasma etch and

deposition system provider Tegal Corp, Infineon, ZMD, and DuPont Photronics also maintain operations in Saxony, where three universities of technology and five universities of applied sciences enhance the region's technology infrastructure.

(Compiled from reports at http://www.reed-electronics.com/electronicnews/article/CA490000?nid=2019 and http://www.siteselection.com/features/2004/nov/ger/)

*The **Beaverton** (Oregon) Center for Software Innovation*'s 15,000 sq. ft. facility will house 15-25 start-up software companies. Operated by the City of Beaverton and partnering with the Open Source Development Laboratory and Software Association of Oregon, BCSI is the first incubator in the State of Oregon focused on software, with an initial focus on specialized sectors within the software industry. BCSI is located in the heart of Oregon's strong software industry, which is anchored locally by IBM, OSDL, Symantec, Merant, and many integrators and consultants. http://www.beavertonincubator.org/

THIS ISSUE'S FEATURED PRODUCT

Recruiting in **Japan**? Whether marketing in Japan or managing Japanese alliances, you can deepen your knowledge of Japanese decision-making. ***Quest for the Sword*** is a CD-based simulation that makes the Japanese policy and business cultures clearer to Westerners.

Quest for the Sword is now in beta release. If you are willing to answer a short questionnaire on your experience with the simulation, General Informatics will offer you 40% off the introductory price of $49.95. This makes the price for the beta test version $29.97, and as an EXTRA, we will include a free copy of the book *The Conscious Manager* with each CD shipped.

Send an email to mailto:info@generalinformatics.com?subject=Order Quest for the Sword beta version stating your desire to order. We will reply with payment and shipping information.

New technopoleis and initiatives are added to Technopolis Times' database weekly

China, Beijing: Zhangjiang Hi-Tech Park Development Corporation
http://www.china-zj.com/entities/res_edu/d_center.htm
Dubai, Doha: Dubai Internet City http://www.dubaiinternetcity.com/
Egypt, Cairo
- o Pyramid Smart Village http://www.citegypt.com/Smart Village.asp
- o Regional Information Technology Institute http://www.riti.org/
France, Champagne: Technopole d'lAube http://www.technopole-aube.fr/ and its incubator http://www.aube-developpement.com/uk/formation/technopole.htm
Germany, Silicon Saxony: http://www.reed-electronics.com/electronicnews/article/CA490000?nid=2019. Also http://www.siteselection.com/features/2004/nov/ger/.
Iran, Isfahan: Isfahan Scientific-Research Complex and Pardis Technology Park (near

Tehran). http://www.hitechpark.com/
Israel (various locations collectively): Silicon Wadi
http://www.israeleconomy.org/opeds/oped15.htm
Japan: Department of Regional Science and Technology Promotion, Japan Science
and Technology Corporation
Japan, Osaka. Osaka Science and Technology Center
http://read.jst.go.jp/ddbs/plsql/KKN_EG_14?code=J022000000
Khazakhstan, Almaty: Khan-Tengri Business Center, no site.
Malaysian Technology Development Corporation http://www.mtdc.com.my/
Netherlands, Maastricht: The Maastricht BioPartner Center, a life-science incubator,
officially opened in December (it has been open in practice since March). The
incubator focuses on cell therapy and cell culture, though tenants include bio/medical
informatics firms and service providers. The Center's unique value proposition
includes a shared Good Manufacturing Practice technology platform and the promise
that by the end of 2005, the facility will have cell culture facilities unrivaled by any
other incubator building. The project was made possible by the Dutch Ministry of
Economic Affairs' BioPartner program http://www.biopartner.nl/, the City of
Maastricht, the Province of Limburg, the EU, the University of Maastricht and LIOF,
a local economic development agency. There are now 13 companies and two project
organizations in residence, a mix of start-ups and established companies. See
http://198.63.55.197/html/Bus_20041230080916.html (The Meuse-Rhine Journal).
Saudi Arabia: King Abdulaziz City for Science and Technology
http://www.kacst.edu.sa/en/
USA, Beaverton: http://www.beavertonincubator.org/ (More information on this
project elsewhere in this newsletter.)
USA, Phoenix: http://www.asutechnopolis.org/
USA, Tucson: Southern Arizona Tech Council http://www.satc-az.com/index.htm
USA, Vancouver WA region: Columbia River Economic Development Council
http://www.bizjournals.com/portland/stories/2004/12/13/daily7.html?f=et75

Look for regional technology initiatives, with links and contacts, in the "Regions" section
of the Technopolis Times web site
http://www.generalinformatics.com/technopolistimes.html - Regions

WEB SITES. RESOURCES.

The Alliance for Regional Stewardship will unveil **RegionLink**, a new moderated
information exchange resource, in January, 2005. "A blend of a up to date news on
innovation, database, a community of practice, a listserv, and the affinity group model,
RegionLink will provide individuals and organizations with the opportunity to network
and share relevant, meaningful information on issues of mutual interest." RegionLink
will be provided at no cost to practitioners through February, 2005. Further information
on ongoing subscriptions to RegionLink will be posted in January. For more information
on RegionLink, see www.regionlink.org or contact Amy Carrier, Alliance Manager, at
amy@regionalstewardship.org.

Eurotechnopolis Institute http://www.eurotechnopolis.org/

Cayenne Consulting's "Regional Resources" page,
http://www.caycon.com/resources.php?g=10.

CONFERENCES

Industrial Asset Management Council's (IAMC) upcoming Spring 2005 Forum on March 19-23 in Charleston, S.C. http://www.iamc.org/.

Asian countries need to examine whether contemporary innovation theories are relevant to their specific development situation, particularly to less developed countries. **ASIALICS** has been concerned with this issue since its inception. Following the first international conference in Bangkok in 2004, STEPI and ASIALICS invite you to submit a paper for the 2nd STEPI-ASIALICS International Conference on "Innovation Policy and Management in Changing Asia," which will take place on 16-19 April 2005 in Jeju Island, Korea. http://www.stepi.re.kr:8080/main/news_view.asp?number=37

Knowledge and Regional Economic Development, Barcelona, Spain, June 9-11, 2005: http://www.ub.edu/ere/aqr/openconference2005.htm

8th International Conference on Technology Policy and Innovation: "Value-Added Partnering In a Changing World." Lodz, Poland: 6-8 July 2005
http://in3.dem.ist.utl.pt/lodz2005/>http://in3.dem.ist.utl.pt/lodz2005/
Enhance understanding of barriers and incentives in developed, developing, and emerging regions worldwide for effective knowledge generation, transfer, application or use, and diffusion. Abstracts should be sent before February 28, 2005.

PICMET'05 (**Portland International Conference on Management of Engineering and Technology**) will be held in Portland, Oregon on July 31-August 4, 2005.
http://www.picmet.org/

10th Annual International Conference on the **Commercialization of Micro and Nano!Systems**.!!COMS 2005 Hosted with Forschungszentrum Karlsruhe, Germany, 21 August - 25 August, 2005, http://www.mancef.org/coms2004.htm.

See www.glorad.org for more conference announcements.

REPORTS

ATIP, the Asian Technology Information Project, has released the following reports. To view these reports, please visit http://www.atip.org/reportmatrixindex.html. (Most ATIP reports may be viewed only by paid ATIP members):

ATIP04.049: Science Education in Central Asian Republics & Caucasus
ABSTRACT: The American Physical Society sponsored a Science Education Workshop held in Baku, Azerbaijan, on April 4-9, 2004. This report covers science education in the eight Eastern countries of the former Soviet Union: five Central Asian Republics and the three independent Caucasus Nations. The report also provides a background on these eight countries: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan,Turkmenistan, Uzbekistan. A summary of the remainder of this report (including a table of contents) is available at:
http://www.atip.org/public/atip.reports.04/atip04.049.pdf

LEARNING OPPORTUNITIES

Free Learning Aids from General Informatics
> **Primer on Economic Development**: Part I, Economic Foundations
> Primer on Economic Development: Part II, Economic Development Defined
> Primer on Economic Development: Part III, What is Technology-Based Economic Development?
> http://www.generalinformatics.com/technology_&_economic_development.html

JARGON WATCH

"The BRICK countries." The nations of Brazil, Russia, India, China and Korea, which, by virtue of their educated and cheap workforces, may capture most of the world's production and innovation by 2020.
http://211.62.87.100/unesco_sevent/scientific_event/science_forume.asp?idx=187

In this issue, instead of our regular "Best Quote" feature, we'll do something else for fun. Reading that December, 2005 saw Amazon.com's home electronic sales volume exceed its book sales reminded me of the day in the 1970s when my former employer, market researcher MRCA Information Services, announced that for the first time, more U.S. households owned cats than dogs. These marketing "crossovers" often signify important trends – in the cats/dogs case, that more households were becoming apartment-dwellers.
        Over the years I've collected several more crossovers. Peruse them at http://www.generalinformatics.com/crossovers.html. Imagine – and, if you will, exploit – the trends they imply.

EDITORIALS

The holidays afford time to think about some of the big questions:

Is it time to take your kids out of French class, and send them to learn Chinese? Will Chinese be the language of the future? The overwhelming volume of trade with China, and that country's enormous population, make that a reasonable question. The answer would be an unequivocal "yes" except for the fact that, historically, an expansionist China once pulled back from dominance of world trade.

Long before Columbus, China was trading by sea throughout the East Indies as far as the east coast of Africa, and had most probably made contact with California. Then suddenly, the emperor lost interest, and banned the building of oceangoing ships and the launch of all but coastal voyages.

This time, will China stay in the game? Yes, certainly, as long as the rest of the world has something China really wants. However, once China transfers the technology it wants and builds its huge internal market, the historic Chinese reluctance to engage the outside world may reassert itself, and its markets may close again.

For non-Chinese, a good guess about whether and when this will happen can make a critical difference to the careers of our children.

*

At the same time that our hearts go out to victims of the Indian Ocean tsunami, we think ahead to the technology solutions that could benefit regions susceptible to such disasters. Early warning systems. Damage minimization and mitigation. Search and rescue. Emergency sanitation. Entrepreneurs, instead of introducing another imitative product to a familiar market, why not consider solutions for these real and desperate needs?

*

Will neoclassical economics and the theory/practice of economic development go their separate ways? The U.S., under its current small-government ideology, is seeing its sick go without costly drugs, and its K-12 education system decline. The Scandinavian countries – the most highly taxed and regulated on Earth, and the bane of small-government dogmatists – are highly innovative and entrepreneurial. That Denmark, Finland, Sweden and Norway are innovative, congenial places to live illustrates what this journal has long noted: Economic development is served by having a healthy, educated populace.

To be sure, the numbers show the U.S. growing its economy faster. The OECD figures for the past year's GDP growth are:

États-Unis 3.7%
Danemark 1.2%
Finlande 2.9%
Norvège 1.4%
Suède 2.6%
Scandinavia average 2.0%
Non-Scandinavia, non-U.S. OECD countries combined 2.2%

The numbers are clouded by the greater number of hours worked per person in the U.S. and America's greater number of two-earner families (and Norway's oil wealth). But at this point we can ask some good questions and make some preliminary conclusions.

Questions: How long until U.S. growth slows down, due to the entry into the workforce of uneducated, latch-key kids who have never seen a dentist? How many growth points would the average American be willing to give up for better education, health and family life? Perhaps the eight basis points that separate the U.S. from Finland?

Conclusions: Again, the philosophy of this journal is that it is not the work habits of the *average* American or Dane that is the question. Entrepreneurs in each of these countries work much harder than ordinary people can or should. Yes, successful Swedish entrepreneurs become tax refugees - living in Switzerland, *but still doing business in Sweden*. Successful Portland entrepreneurs, too, cross the Columbia to live in

Washington State, where capital gains taxes are lower, but they *still do business in Oregon* where they can find healthy, educated employees.

There is more analysis that can be done, taking into account, e.g., regional differences in risk-taking behavior. And governments are not the only sources of education and health care. However, it looks as though the U.S. is risking much of its future productivity, and a load of ease and enjoyment, for a measly eight-point advantage in current growth.

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Technopolis Times' Creed
* Innovation creates sustainable wealth in metropolitan regions where there is easy interaction among the education, government, business, financial, transportation, telecomm, press, arts & entertainment, nonprofit/NGO, and tourism sectors.
* Wealth is enhanced when these metro regions network with each other, especially across national borders.
* The keys to success are entrepreneurship; critical-mass clusters in strategic industries; social capital; and civic activism.
Technopolis Times is here to help aspiring regions succeed.

Technopolis Times' Mascot
Ted the bear, whose name stands for "Technology and Economic Development." See Ted's picture at http://www.generalinformatics.com/technopolistimes.html.

Ted's lawyer wants to remind you that Technopolis Times' *Review of Technology & Economic Development* is a compilation of 3rd-party reports. Technopolis Times and General Informatics LLC are not responsible for their accuracy.

How would you like to receive *Review of Technology & Economic Development*? Copy & paste this section into an email to tt@generalinformatics.com. Insert any needed check marks. Then hit "send"! (If you've already done this, no need to do it again - you're on the list!) *This form continues on the next page.*

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My favorite sections are:

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Other comments?
_____.

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