



Old money, new ideas: some of the world's most famous brands, such as Heinz (left), started out in Pittsburgh, but the city is now more famous for its blue-chip technology companies, drawn by such institutions as the Collaborative Innovation Center at Carnegie Mellon University (above)

# From steel to silicon

THANKS TO A STRONG WEB OF UNIVERSITIES, ENTREPRENEURIAL SPIRIT AND GOOD CO-OPERATION BETWEEN PUBLIC AND PRIVATE ENTITIES, PITTSBURGH HAS TRANSFORMED ITSELF FROM THE STEEL CITY TO A TECH TOWN. MICHAL KACZMARSKI REPORTS

If a company converts an old cookie factory into its local office and introduces 'dress-up Fridays' – because every other day is casual – it has to be Google. And it is indeed the globally famous Google name that since December 2010 has graced the site of a 100-year-old Nabisco cookie factory in Pittsburgh, Pennsylvania. What is remarkable, however, is not the fact that employees can benefit from all kinds of quirky perks – such as a huge hammock made from a cargo net, or music and games rooms – but the fact that the internet giant chose Pittsburgh as the site for its venture.

Some three decades ago, Pittsburgh's economy, heavily reliant on the steel industry, was in a dire state. It seemed that the sudden collapse of the US steel industry would see the city that was home to such prominent industrialists as HJ Heinz, George Westinghouse and Andrew Carnegie suffer a permanent decline. And yet, weather conditions aside, Pittsburgh is today more reminiscent of the cities in California's Silicon Valley than it is of struggling Rust Belt cousins Detroit and Flint.

## **Educated growth**

The key to Pittsburgh's success lies in its workforce. Its wage rates are not only lower, being 95% of the national average, but thanks to the city's robust, 35 college-strong university net-

work, its residents are also well educated. Some 50% of young adults in Pittsburgh have a bachelor degree; the national average is 35%. On top of that, Pittsburgh universities such as Carnegie Mellon (CMU), University of Pittsburgh and Pennsylvania State University are respected both domestically and internationally.

"Within Google, even before opening our Pittsburgh office there was an existing 'Carnegie Mellon mafia', since lots of university computer science graduates ended up working for us. We moved here explicitly because of the CMU graduates and computer science talent in south-western Pennsylvania," says Andrew Moore, Google Pittsburgh director and former CMU professor. He adds that, in the span of five years, Google's presence in the city has grown from two employees to 200, and the size of the company's operation is "still growing pretty aggressively".

But Pittsburgh universities not only supply corporate giants with skilled youngsters, they also break the Silicon Valley's monopoly for high-tech start-ups, especially in the fields of computing and robotics. Seegrid, a robotic industrial trucks manufacturer and CMU spin-off, founded in 2003, extended its operations from the handful of US states to supplying clients in two continents. It has already moved into a new office nearly eight times larger than the previous venue and secured \$7m for a further expansion, and is growing so fast that, as Seegrid's marketing manager, Amanda Merrell, says, "it is hard to keep up with the new faces and new names when you come to work". Recognition for Seegrid's rapid develop-



## WE MOVED HERE EXPLICITLY BECAUSE OF THE CMU GRADUATES AND COMPUTER SCIENCE TALENT IN SOUTH-WESTERN PENNSYLVANIA



ment is shown by the fact that the company's new office hosted US president Barack Obama's Jobs Council roundtable in October 2011.

### Incubating revenues

Annually, 35,000 students graduate from Pittsburgh's universities. However, given the fact that the city lies within relatively close proximity to much bigger cities such as Philadelphia, New York and Chicago, Pittsburgh could easily run the risk of becoming a city where the US's brightest students come to study but then relocate after graduation. But Pittsburgh's entrepreneurial spirit keeps many of its best graduates in 'the Steel City'.

"I am originally from California. In a million years I would not imagine that I would call Pittsburgh home, much less that I would own my company," says Seema Patel, CEO of Interbots. Her company, which developed the first customer robot that can be used in autism therapy treatments, was established in 2005, and originated from the student assignment at CMU's Entertainment Technology Center (ETC).

ETC positioned itself as the hub for creative industries in Pittsburgh, with graduate programmes that are not based on a traditional curriculum but instead on real-life assignments with partners such as computer games giant Electronic Arts and Microsoft.

"Our school creates an environment in which art types work hand in hand with programmers on real-life assignments," says Shirley J Saldamarco, director of creative services and faculty at ETC. She adds that what is also significant is the fact that students own property rights of their projects and many of them, when they see the end result of their work, are eager to introduce their products to the market.

Other ETC spin-offs include interactive kiosk and software developer Electric Owl Studios, workplace training games developer Etcetera Entertainment, themed technology solutions provider Evil Genius Designs and game development studio Schell Games.

ETC is not the only entity in Pittsburgh that invests in homegrown talent. Young entrepre-

neurs can obtain everything from workspace, guidance and funding through Innovation Works' Alpha Lab incubator. In 2010 the incubator invested \$4.6m in technology companies, and Innovation Works-assisted companies brought in \$775m in revenues. Such high returns should not come as a surprise, given that the incubator has among its alumnus such innovative companies as international directory of television channels Wherever TV, donor database provider DonorPro and mobile social network developer MogiMe.

### Sweet future

Despite the large pool of blue-chip companies establishing their presence in Pittsburgh, the city does not have an ambition to become the new Silicon Valley. Pittsburgh paid a high price in the 1980s for relying on one industry. Therefore, the economy of Pittsburgh is now much more diversified, with financial services (BNY Mellon, Federated Investors, Jones Day and PNC have their headquarters in the city) and healthcare services being among the top employers in the region.

Additionally, business activities such as clean tech and life sciences are supported in the city by Pittsburgh Life Sciences Greenhouse, which provides support similar to the one provided by AlphaLab for technology companies. As the city sits on the Marcellus Shale deposit – the largest proven reserve of shale gas in the US – jobs in natural resources and mining are also on the rise.

Back in the steel industry's heyday, one out of three jobs in Pittsburgh was in manufacturing. Today there is not a single working steel mill within the city limits and blue-collar jobs have, for the most part, gone, though its blue-collar 'can do' attitude remains. Thanks to this spirit, along with good planning, a stellar network of universities, public institutions and private enterprises, Pittsburgh weathered the recession much better than most cities in the US, with an expanding economy and unemployment levels below the national average. Investors coming to the city have every reason to hope for a sweet future, even if the old cookie factory is already occupied by Google. ■