# Dutch city patently the world's most inventive

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From cancer-busting ultrasound techniques to ways to boost vitamins in tomatoes, Dutch tech-hub Eindhoven's avalanche of patents has just earned it the crown of "most inventive city in the world."

Despite the Dutch economy hobbling through its third recession since 2009, this southern city of around 750,000 has become a beacon of high-tech hope and is even compared to Silicon Valley in the United States.

With 22.6 patents filed for every 10,000 residents, US-based Forbes magazine this month named Eindhoven the world's most inventive city.

Using a commonly-used metric for mapping innovation, called 'patent intensity', Forbes based its award on statistics from the Organisation for Economic Co-Operation and Development (OECD).

In 2011, some 3,238 patent applications were filed in the Netherlands, according to the European Union's statistics office Eurostat.

Of these, the Eindhoven region and in particular its research and development hub the High Tech Campus (HTC), accounted for 42.0 percent.

But on the "smartest square kilometre in the Netherlands", you won't find students at the sprawling HTC complex on Eindhoven's outskirts.

Once a closed-off laboratory for Dutch electronics giant Philips, the campus houses more than 100 companies employing 8,000 researchers,

developers and engineers.

"Here, every 20 minutes a patent is created," the HTC boasts on its website.

The sprawling complex with its ultra-modern glass-facaded buildings is set among green fields populated by leisurely grazing cows.

The HTC is at the heart of Eindhoven's innovation and provides a space where big companies such as Philips collaborate with small startups.

Philips opened the facility in 2003 when the company had just gone through a round of layoffs. It offered former employees somewhere to launch startups and use their knowledge.

The result was an explosion of innovation.

"The idea (of the HTC) is based on a philosophy of 'open innovation' where high-tech businesses share knowledge ... to deliver better and quicker results," said Jean-Paul van Oijen, sales manager at Brainport Development, whose job it is to stimulate investment in the Eindhoven region.

## The ideal campus

For a small startup like Miortech, which makes electronic tiles that deflect sunlight just like paper—seen as the next big thing in billboard displays—the campus is ideal.

"We have only five people on the payroll," the company's chief executive Hans Feil told AFP.

The rest of the work is outsourced to scientists from other companies,

while the facilities to do the research are rented from the HTC.

"We use shared facilities. It's a very good spot to be. We are surrounded by people and companies with a similar mindset—high patent intensity," Feil told AFP.

The High Tech Campus forms part of the broader Brainport Region Eindhoven, or Brainport for short—an initiative rolled out by the Dutch government in 2004 to corral high tech knowledge after not just Philips but several other big companies laid off a swathe of highly-skilled workers.

It works on a so-called "triple-helix concept" which brings together business, knowledge-based institutions and public money to create a space where enterprise can flourish, notching up some 60,000 new jobs in the region by 2011.

Together with the so-called Airport Amsterdam, which focuses business on the Schiphol International Airport hub and Seaport Rotterdam, Brainport today forms one of the three most important pillars of the Dutch economy.

Brainport contributed some 13.5 billion euros ($17.8 billion) or 8.0 percent to Dutch exports in 2011 and aims by 2020 to be one of the top 10 technology regions in the world.

Henk Volberda of Erasmus University's Rotterdam School of Management warns however that more investment in small startup companies is needed if Eindhoven wants to remain competitive on a global level.

"We need to see... less dependence on the big companies like Philips and ASML (the leading lithograph maker used to manufacture computer

chips)," said Volberda.

Last year already saw a 10.0 percent drop in patents filed by the Netherlands at the Hague-based European Patent Office, partly down to a drop in applications from Philips as it streamlines activities.

Currently the Netherlands is ranked fourth in the world by the 2013 Global Innovation Index report, ahead of the United States, Finland, Germany and Japan.

Switzerland, home to a plethora of pharmaceutical multinationals, claimed the top spot for the third year running, in the report, released by Cornell University, the INSEAD business school and the World Intellectual Property Organisation (WIPO).

But the Dutch ranking could be jeopardised if the delicate balance between public and private money, always difficult to maintain in times of economic downturn, is threatened.

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