Close links with China

TU Delft has been collaborating with China for decades, but the relationship only really intensified three years ago. What’s the added value of a Joint Research Centre?

“We’ve been working together with Wuhan University since the year 2000 and regularly welcome visitors from China to Delft,” says professor Peter van Oosterom of the faculty of Architecture and the Built Environment (A+BE). When the Joint Research Centre (JRC) opened in Wuhan in November 2012, he gained the title of academic director. “So, to a certain extent, collaboration isn’t anything new. But the JRC has made it more obvious, structural and sustainable. We now do less on an ad hoc basis and reach better agreements regarding the exchange of students and researchers, PhDs and Master’s degree programmes. Add to this that you stand stronger when you’re united – if you prepare a research proposal, you’ve got more chance of success as one of two high-quality partners than when you are working on your own. This brings an increasing degree of balance to the partnership.”

TU Delft now has six of these strategic research centres throughout the world. The Beijing Research Centre opened in May 2011, followed by three other JRCs in November 2012, in Nanjing, Guangzhou and Wuhan respectively. That same month, collaboration with South America was intensified with the opening of an office in Campinas, Brazil. And in December 2013, the centre in Hanoi, Vietnam completed the current line-up. Every collaboration sounds both logical and recognisable, because the focus is always on one specific theme. For example, work in Beijing is primarily concerned with LEDs, in Nanjing it’s water, in Guangzhou the focus is on...
urban development and Wuhan is where you find the geo-data specialists.

Vincent Nadin, professor of Spatial Planning and Strategy at the faculty of A+BE and academic director of the JRC in Guangzhou also advocates this formalised form of collaboration. “This is a much better way of establishing international relations. What we want as a university is an intensified relationship, so that we can really research things together.” As a prime example, he refers to the research being carried out by professor Jan Rots (faculty of Civil Engineering and Geosciences) into the earthquakes in Groningen. “Guangzhou is home to a special laboratory for research into earthquakes, with facilities including a floor that shakes. I think that’s a fantastic example of how our interests perfectly match.”

Two-way traffic

There’s also absolutely no doubt that the collaboration should involve two-way traffic. “China is home to high-quality facilities with respectable satellite programmes, which makes becoming involved an extremely interesting prospect for us. Chinese talent also helps us to conduct research, and we then publish our joint findings. Things over there have developed rapidly in the past decade. It’s arrogant to assume that they are lagging behind us. Actually, the roles have even been reversed in some areas”, says Van Oosterom.

Therefore, the universities not only have access to each other’s state-of-the-art laboratories, they also secure equal amounts of funding from their respective national financing schemes. “We organise a joint annual congress and have already established a few joint research projects”, Nadin says. “As such, TU Delft has been awarded €280,000 by the Netherlands Organisation for Scientific Research (NWO), while Guangzhou has received 1,000,000 Chinese renminbi (nearly €150,000) from the National Natural Science Foundation of China (NNSFC) for Guang Ye’s project within the faculty of Civil Engineering and Geosciences (CEG). In this project, we’re collaborating to research sustainable concrete. Without the JRC, this wouldn’t have been possible.” Differences can be observed between the JRCs with regard to student and researcher numbers, which are generally much higher in China. For example, Wuhan’s Geo degree programme produces 500 PhDs, 1,500 Master’s students and 3,000 Bachelor’s students every year, while at Delft those numbers are respectively 10, 50 and zero (for A+BE and CEG combined). There are also twice as many staff involved in the JRC in Wuhan: 40 compared to 20 in Delft. For that matter, about 40 Delft staff members work at the JRC in Guangzhou, which specialises in urbanisation. These staff members are spread over the faculties of CEG, Technology, Policy and Management (TPM) and A+BE.

Dating service

After three years, the collaboration with the partners in Asia has thus intensified dramatically, but the alliance will need to become even closer in the years ahead. “Our platform is a bit like a dating service that matches people up”, explains Nadin. “In the past three years, we’ve matched a large number of researchers, and now it’s time to take those relationships to the next level.” As such, several JRCs are currently busy developing a double-degree PhD, which would mean that doctoral candidates would receive a diploma in both China and the Netherlands. “That would be a huge bonus to PhD candidates. After all, these are two leading universities in the field”, says Van Oosterom. The idea is that the PhD candidates’ supervisors also spend some time at the other university, among other things to give guest lectures and help draft research proposals.

‘It’s arrogant to assume that China is lagging behind us’

The academic directors in Delft who are responsible for the JRCs are also working together with their Chinese counterparts to consider the future course of the collaboration. “We have an advisory council here in Delft comprising people from the business world and the public sector, who make recommendations regarding as to where the research should be heading. Just like in China. That gives us an enormous boost”, adds Van Oosterom. “All things considered, a JRC – which allows you to conduct in-depth research with strategic partners – offers numerous advantages compared to an ad hoc relationship”, concludes Nadin.