

University of Twente on starting collaboration with Curitiba

Update July 2015

Why Curitiba?

In 2014, a Dutch mission to Brazil was organized by Netherlands Enterprise Agency (RVO.nl) on Smart Cities, Smart Grids & Biobased. The mission (consisting of representatives from Dutch universities (incl. University of Twente, UT), governments and the private sector) paid visits to business associations, governments and knowledge institutes in São Paulo, Rio de Janeiro and Curitiba.

Due to its scale and profile, we believe it to be a perfect entry point to start exploring changes for Smart Cities in Brazil. Some of the partners of the mission decided to explore possibilities for joint project development on Smart Cities and Smart Grids in Curitiba. Therefore, in May 2015, together with Natasha de Sena from Wageningen University (WUR) I travelled to Curitiba to discuss possibilities.

The city is well known for its innovative urban planning and transport system - its green spaces per capita are approximately 55 square meters, which is far higher than the recommended UN standards. The city's program of building "lighthouses"—essentially electronic libraries—for poorer residents has become a model for developing cities worldwide. Curitiba demonstrates how develop without mass violence, transportation dysfunction and ubiquitous grinding poverty that plague many other Latin American metro areas. These are among the reasons for Reader's Digest to recently name Curitiba the best place to live in Brazil.

With 1.9 million inhabitants, the south Brazilian city is the country's 7th city. Compared to other large cities in Brazil, Curitiba is relatively rich and prosperous. The state Parana accommodates many Europeans that once emigrated e.g. Poland, Germany and Netherlands. They partly live in colonies nearby Curitiba. The Dutch descendants form a group of 15,000 people. Curitiba also accommodates an honorary consul for the Dutch Kingdom.

The chances that we see

Upon return from Curitiba, I informed the UT community and the Dutch partners from the mission on the chances for "Smart Cities" I saw in Curitiba. These are on mobility, energy transition and cycling. Colleagues found these leads interesting from the CTIT, CTW and IGS research institutes. In addition, our new strategic partner on smart mobility (city of Assen) was also very interested.

What do we aim for?

We plan to develop strategic collaboration. This includes the exchange of faculty staff and students, recruit students, develop research collaboration, share networks and starting up (business) projects.

We proposed to start up an office and working station to start collaboration and business in the area of Smart Cities – the smart city living lab. We want to include our Dutch partners from the mission to this. The lab should focus on public-private collaboration in the wide area of Smart Cities.

Our partners in Curitiba have enthusiastically taken up the proposal and proposed to settle at IPPUC. We very much like the idea since this is a renowned institute involved in

developing Curitiba's urban research and planning. The idea is that the lab welcomes our partners as to jointly work on acquisition, project development, research and running business projects. The business plan for this lab still needs to be developed as well as the working plan for it. This will be together with our partners from Curitiba. See below.

What do we have to offer?

In our research and education, many areas are relevant for the Smart Cities theme:

Urban design and infrastructure (road, rail and the underground)

- Smart grids and energy transition
- Human-technology-interface and behavioral approaches
- Crowd control, security and reliability of ICT, big data analysis; remote sensing
- (Open) innovation and entrepreneurship; project management of complex (infrastructure) projects
- Smart and sustainable transport, traffic and mobility (modeling, apps)
- Governance, participation and social innovation (incl. educational sciences)

In addition, we are an *Entrepreneurial university*:

- creation of spin- offs and facilitation through Technology Transfer Offices as a means of employment
- Creation and maintenance of an appropriate governance structure
- Interdisciplinarity (generation of research funding, PPP)

Where are we now?

Early July, Curitiba has sent us a draft MoU. The Brazilian partners include 4 universities:

- The City of Curitiba
- UTFPR – Universidade Tecnológica Federal do Paraná
- UFPR – Universidade Federal do Paraná
- PUCPR – Pontifícia Universidade Católica do Paraná
- UP – Universidade Positivo
- FIEP – Federação das Indústrias do Estado do Paraná
- IBQP – Instituto Brasileiro de Qualidade e Produtividade
- CICLOIGUAÇU – Association of Cyclists of Alto Iguaçu
- The Netherlands Kingdom Consulate

The Dutch partners are UT, WUR and the Dutch Cycling Embassy - this can be increased.

The focus is on the potential for cycling. While maintaining the "cycling", the Brazilian partners are open to adjust the content of the MoU. At UT, we wish to enlarge the focus on cycling (which in itself is a distinct research area covered at the UT) as to cover its wider context. My suggestions are for example:

- Transforming towards sustainable smarter cities focusing on the potential for sustainable mobility/cycling, or
- Increasing the potential for cycling and its effects for transforming towards a sustainable and smart Curitiba.

The Dutch Cycling Embassy is a collaboration of private and public actor in the area of cycling. I have had contact with the chairman of its working group for Brazil (UT is member of this working group), who is very enthusiastic and wants to the initiative – yet he still needs formal approval. This will be followed up in mid-August.

WUR has participated in the mission in May and is also partner of the MoU. They are currently determining their position.

The Brazilian partners proposed to sign the MoU on September 18 so it fits in the Traffic Week. For us, this date is doable – except that our Rector will be unable to join us on this short term.

Follow-up in August

I will be on leave from now on. In mid-August, I will continue working on 1) determining the topic of the collaboration; cf my suggestions on the previous page) and 2) prepare the trip in September when we will elaborate on the MoU implementation plan. In addition, I will draw in our other partners from the mission.

Enschede, 19 July 2015,
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