

ABSTRACT/synthesis AERTE days – Leuven – June 2019

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Even more than in an era of changes, we are living in a **changing era**. The same is true for the province, and definitely true for the city of Antwerp. Here, **things are moving quite fast** when it comes to the areas of IoT, of Smart Cities, of digitalisation and artificial intelligence. It was after a mission organised by VOKA –Flanders' Chambers of Commerce and Industry- that Antwerp mayor Bart De Wever and myself successfully persuaded John Baekelmans to become CEO of IMEC. From that moment on, (the province of) Antwerp is **changing slowly but steadily into a Smart or Future-Proof City**.

In the city and province of Antwerp, as elsewhere, **interconnectivity**, the **intelligent use of big data and the appropriate algorithms**, all in an **quadruple helix environment**, have resulted in a stimulating ecosystem, accommodated in *the Beacon*. Flanders, IMEC and the city of Antwerp fulfilled the critical factors necessary for the development of a Smart City : 1. **A standard framework, solid and absolute open** ; 2. **Co-creation**, preferably in full interaction with the citizens ; 3. **An open source** that in turn will ensure that primarily start-ups are stimulated and challenged to develop useful apps.

Antwerp gives particular focus to the **most urgent and crucial problems** : **safe crossing** (dedicated to road safety), smart lighting (dedicated to individual safety, especially but not exclusively for women who feel more vulnerable) ; **smart logistics** (less emissions, pollution and congestion) ; **civil security and public order**.

Several concrete projects, destined to change the city and the region profoundly, are worthwhile mentioning and presenting here.

For instance, **Nxt Port**'s aim is to make, by means of block chain, the Port of Antwerp and the logistic chain more efficient and sustainable, as well as more robust against illegal traffic.

The biennial technology festival and fair **Supernova**, a close cooperation between Flanders and other key partners : VITO, IMEC and the University of Antwerp, presents a wide variety of the latest technologies and applications.

In a more rural environment, **Flowbikes** at the the municipality of Bonheiden is a succesful attempt to encourage children and their parents to bike more, in exchange for 'ducats'.

In order to improve and further digitise biking infrastructure, the Antwerp province launched, amongst other initiatives, **The Bike Barometer**. This project also forms an integral part of the **European project BITS: Bicycle Intelligent Transport**. An important pet topic of me is Vision Zero : no more fatalities or serious injuries involving road traffic, as well as as a strong and consecutive plea for the self-driving car.

Here, the project '**Self-driving cars**' at the university Thomas More at Mechelen has conducted some interesting pioneering work in the development of software to automate conventional cars by means of a smartphone.

In order to ensure a more performant emergency and risk management within the city (and province) of Antwerp, the Antwerp fire department presented **Flooding4Cast** in late June. Flooding4Cast is an integrated IoT/Smart City project allowing to optimise the management of severe flooding and downpours

Otherwise : to battle warm and dry summers, the province of Antwerp has developed **Smart hydrological monitoring**, a system that automatically monitors water levels and helps to take appropriate measures in time.

To conclude, in the field of public order and police security, I mention the **supra-communal server BAS**, which facilitates the communication and the immediate exchange of hits and images of smart cameras. Within the framework of criminal investigations, BAS is a true asset and advantage.

The same goes for the **database developed by Graydon**, which collects and combines all the public data about companies and generates algorithms for the **administrative struggle against subversive criminality**.

I see **the role of STR's** very clearly. They have to **be and remain well informed about and share experiences, ideas and opportunities and possibilities about Smart Cities and the IoT**. But at the same time, they have to **continue to be aware of and very alert to potential risks, to prepare to them** and, if possible, to **help mitigate them**.

Moreover, they can be the **central point and pivot** around which partners meet and connect to develop **scale economies and other joint initiatives**. In the same spirit and being convinced that united, one can reach further, the STR's can **create forums and platforms for best practice exchange**.

They know how to **select projects in the field of civil and police security with thorough and careful consideration**, projects that are **worth investing** in. STR's consider it their primary task and obligation to assist the municipalities (often rural) who risk to miss the boat, as well as to avoid evolving into a province with different speeds. Lastly, STR's have to **keep the focus right**: the IoT, Smart City, machine learning,... are **instruments, but the ultimate goal** is and must remain **enhancing the quality of life and of society, free from social exclusion or even profound dualisation**.