

International Cooperation Offers Advantages

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Dear Ladies and Gentlemen,

Let me start to (further) introduce myself by sharing my experiences working with and in foreign companies. By doing so, I hope to make clear the benefits of working together with foreign colleagues. We can learn from them; and they from us.

After that, I would like to discuss two specific cases with you. In both cases, the advantages of international cooperation as well as some points of attention in doing business internationally become apparent. The first case deals with the high-tech start-up Liteq that we founded and subsequently sold to a Singaporean multinational. The second case concerns my current company, called AME. AME is active in what we call the new-economy.

My international working experience started after my PhD in 1991. I became a scientist at a Research Institute in Germany. What sticks to my memory is:

- Discipline,
- Hierarchy, and
- Doing research for a clear purpose or to the benefits of a particular business, not for "science delight".

During that time, I travelled a lot to our affiliates in Tokyo. My Japanese colleague Iwaya-san taught me "positive thinking". To get ahead you always have to think positively. Banish "negative thinking" and "whining". It is a lesson I regularly think of.

In 2003 I moved with my family to Hong Kong and in 2006 to Taiwan. I was a member of the executive management team of a Taiwanese company and responsible for the supply chain for displays of mobile phones. I traveled throughout Asia to suppliers, partners and our own factories. What did I learn:

- In a Taiwanese/Chinese company, the chairman has always the last word and is always right. If he does not agree, there is no deal, irrespective what has been agreed with people in the organization.
- Chinese and Taiwanese people do business from the heart. Very opportunistic. A lot goes wrong because of that, but there are also thunderous successes. I was used to make detailed business plans and calculations. We call that doing business from a spreadsheet. The risk here is that essential business windows are missed.
- China and Taiwan have a high degree of focus and alignment. All people follow the boss. Even on a national level, there is a clear technology focus.

Taiwan wanted to be the leader in the chip and display industry. And see where they are right now. TSMC is the largest IC foundry in the world.

- Chinese people are only interested in the fastest way to the solution. They have little interest in the cause and what is not possible.
- In Japan, you do business on the basis of trust. That trust base must first grow. After that, you can work successfully together and you will be friends forever.

Then back in the Netherlands, I became responsible for the supply chain of Imaging Systems of Philips Healthcare. You know those large imaging machines, like MRI and CT scanners. My purchasing value worldwide was about 1 billion USD and we had offices in China, India, Israel, USA and the Netherlands.

- What did I learn from my colleagues in Israel: Focus on innovations and further improvements. High degree of perseverance. Never give-up.

After 4 years, I was asked to become director of FEI (now part of Thermo-Fisher) in the Netherlands, globally responsible for Research and Development and member of the executive team of FEI, headquartered in the US. I was managing groups in the Netherlands, the Czech Republic and the USA:

- Czech Republic: huge drive to prove themselves. Good technical education and a cost effective work force.
- America: Everything is business and money driven. Always an eye on the merits and how to outsmart the competition. You are a winner or a loser. There is little in-between.

In short, I learned a lot from doing business internationally. You experience how things can be done differently. It gives you a reference to your own well known way of working. I learned a lot from foreigners but also a lot about myself, my own culture. There is no wrong and right. It's all about having the right balance for the situation at hand.

In the Brainport region we are blessed; we are more and more influenced by people who think differently, people from different backgrounds and cultures. The many foreigners who work here make our region more balanced. Some data. We have 150 different nationalities studying at our Universities in the South of the Netherlands. The number of nationalities in total here is even higher. It might be as high as 180. Compare that to the 195 recognized countries in the world! We have the total world represented in this region! Once again: The total world is represented in this region. One out of four University students is coming from abroad. The Maastricht University is approaching 50% non-Dutch students.

What do you think the total salary of the International workers in the South of

the Netherlands is? It is around 3 billion euros. There is no doubt and no question how important international workers are for our economic success. Certainly in times of significant shortage of capable technical people.

As introduction to my first case, I want to put forward the following questions. What is the Netherlands so strong about? What do we do differently? Why is Brainport so highly regarded? And I do not mean the soft factors such as cooperation in the triple helix. My firm belief is that there is almost no region in the world with such a high level of system-level thinking, combined with creativity. The system engineers and the technical architects make the difference. We can integrate hardware, embedded software and firmware very effectively. We apply the already famous V-model as nowhere else. Who in the audience knows or has heard of the so-called V-model?

The V-model describes the activities to be performed and the results that have to be produced during the development of a whole system. The left side of the "V" represents the decomposition of requirements, and creation of system specifications. The right side of the "V" represents integration of parts and their validation.

In 2015 I started with a few engineers the development of a lithographic stepper for the back-end of the IC chip industry. A highly complicated machine to be developed by a lot of mechanical engineering, software engineering, electronics engineering and optical engineering. The founded company was called "Liteq". It counterparts ASML that makes such machines for the front-end of this industry. Liteq was a high tech, high risk, high reward start-up. The first two years we spend up to 15 million euros. A lot of money for a start-up! I also put my own money into this. With a few great architects, the knowledge in this region and through proper application of the V-model we were able to develop a fantastic machine. I believe, the best in the world for this business domain.

Developing a great product does not mean that you have business success. We experienced that we lacked 3 key factors for success:

1. Application knowledge. The production and application knowledge of IC manufacturing can hardly be found in the Netherlands. It is predominantly present in Asia. And this is crucial for fulfilling the exact requirements of the customer.
2. As a small-scale company that wants to make multi-million value machines, you do not get the trust of large customers with sales of the order of a billion. You are not credible.
3. To penetrate the business, you need to have deep financial pockets. It starts with high risk and then the potential high reward will come.

Investors in the Netherlands are reluctant to invest large sums of money. It is a matter of doing business from the heart instead of a spreadsheet. We are more spreadsheet oriented.

We were pleased that we found the Singaporean company Kulicke & Soffa that could provide the aforementioned success factors. A credible company with almost a billion turnover, 600 million on the bank account and solid application knowledge in this domain. We sold the company and all investors were happy.

However, I did receive several comments about why I sold such beautiful pearl in this region to a foreign company. "You sold valuable IP to a foreign company", was remarked! The answer is simple. We would not have succeeded without this foreign party. We often miss opportunistic behaviour, the big money and application knowledge. Many people in the region express the ambition that we have to create the next big OEM, the next ASML. On the basis of our own current strengths this is, in my opinion, not possible as long as we have not filled in essential success factors. A next big OEM can be build, however, through cooperation with foreign complementary companies.

My second case is about my current employer AME, that stands for Applied Microelectronics. I only work there now for less than 2 months. The previous CEO and founder Marc van Sloun passed away at the beginning of this year. Marc has set up a great company that responds to the so-called new-economy. It is a young and dynamic enterprise, having about 160 engineers with an average age of 30 years. Not less than 43% of our work force is coming from abroad.

Our society electrifies rapidly by electrical vehicles, robotics, automation, digitalization and internet-of-things. In this domain AME develops and makes modules for smart devices with a high level of Artificial Intelligence. I brought a nice example of that. Our small robot controlled by an app on a mobile phone.

The company has currently a turnover of around 35 million and is growing fast by 25% per year with customers mainly in Europe. The large Original Equipment Manufacturers, OEMs in Brainport are not (yet) our customers. So, we are not, as many other suppliers in the region depending on conventional OEMs, like ASML, Thermo Fischer (formerly FEI), and Philips Healthcare. AME is a showcase company that adapts very quickly and that is addressing the new and exciting era of human society.

In our Brainport region we can make a division in two types of companies. Ones that are based on traditional business and a conventional way of working and ones that are connected to the new economy. The difference in average age of

employees between these two types of companies is at least half a generation. I want to raise two points here:

1. The old economy companies are essential for our current prosperity and welfare in the region. But the world is changing rapidly. As said, the society is electrifying. The “old-economy” corporate companies will have difficulties to adapt to the pace that is required. Brainport does have several dynamic and young companies addressing the new-economy. As mentioned AME is one of them. I think we should listen more to the so-called new-economy companies as they will have a determining impact on our future welfare.
2. Collective Labor regulations from the past cannot be applied any more. They are not sufficiently flexible for young companies in the new economy. International workers of around 30 do want to have more flexibility. The Collective Labor Agreements (in Dutch CAO) are completely outdated for this work force. These workers want to have the choice to save money for a pension or to use more money to finance, for instance, a house. Nobody in our company feels connected to labor unions. Nevertheless, we are legally forced in the direction of collective labor agreements. Listen, the competition comes from abroad, not from the Netherlands. In Brainport the business community is renewing rapidly. We can be proud of that. We are incredibly strong and adaptive, but it is now up to the government to create conditions in which companies can continue to flourish in the new economy. In my view, that is far more important than cancelling dividend taxes which gets all the attention in the media now. It is time to put the new-economy on the agenda!

Thank you!