

Opening and Acknowledgement

- Madam Rector Magnificus, distinguished professors, Mister mayor, distinguished guests, family and friends. When in September 2004 I entered the University, I never could have imagined that I would stand here today receiving this award.
- It is an incredible honor and privilege to receive the Alumnus of the Year award and it feels good to be back at my Alma Mater
- Groningen has a very special place in my heart. I enjoyed it so much that many will argue I spent a bit too much time here.

Personal Path and Journey: Academy and Freedom.

- Most of my professional life has played out in Silicon Valley. As I prepared for this speech I asked myself, why does the Silicon Valley ecosystem of companies and universities appear to work so much better than the Netherlands.
 - To answer that question, the theme of today's celebration is apt. It is the freedom to explore bold new ideas.
 - Wikipedia defines Freedom as 'to act and change as one wants without hindrance or restraint'
 - What makes Silicon Valley unique in my opinion is not their talent, nor their money, academia or their infrastructure. It is a central belief that a small team of people can achieve extraordinary results when given the freedom to try something hard.
 - Trying something hard is encouraged. Failing at something hard is seen as learning. No idea is too weird. Everything can be tried by anyone.
 - Now - like in many places a lot of things in Silicon Valley fail. But because many are given the freedom to try, the outcomes have been very different.
- My first taste of this freedom was during my Master Thesis project
 - At the time I was interested in understanding how the internet's physical infrastructure was growing to support new high bandwidth services such as video streaming. I wanted to measure the bandwidth of every modem connected to the internet to better understand if we were going to run out of capacity.
 - Typically, for most Dutch telecommunication companies the topic was way too complicated to measure and too risky so they politely declined.
 - Not expecting a response, I had sent an e-mail to the network research team at Google about the idea as they were involved in a lot of interesting network research
 - To my surprise, Matt Mathis, one of the core contributors on TCP/IP responded "That is an interesting idea, you should intern here".
 - I was baffled. I was a 7 year industrial engineering student. I did not have a particular publication record, or good grades for that matter. I had spent way too

much time outside the lecture halls being active in all kinds of student organizations.

- They gave me the internship because I wanted to try hard, and my motivation to solve the problem was more important to them than my credentials.
- My life would have taken profoundly different turns if - at that time - I had settled for the negative response of the Dutch telecommunications providers and moved on to a different Thesis Topic.
- In Silicon Valley I learned the most important lesson about freedom: there cannot be audaciousness without the freedom to operate. As Steve Jobs once put it: "It doesn't make sense to hire smart people, to then tell them what to do all day. We hire smart people so they tell us what to do"
- Throughout my career I have seen this mantra repeating itself over and over again..
 - When I worked in Google Maps we asked ourselves 'what if we could use the anonymized physical movement of mobile phones to understand traffic jams'
 - In Android we asked ourselves 'what if we could have an android in every car'?
 - In Google X we asked 'what if we could build a chip that is 100x better at running machine learning models?'
 - All of these ideas sounded hard at the time. Until they were not. We were able to attain these goals because leaders gave us the freedom to try and solve them.
- Silicon valley is not a place, it's a state of mind. It's about a relentless drive to try hard things facilitated by companies, universities and investors that are willing to allow you to take risks.
- Coming back to Europe I had fully assumed this mantra was commonplace. I had gotten used to it and only when I started building my company here did I realize how different we are.
 - When we pitched Cradle to investors, our first slide read "make biology more programmable" Guess what: most European investors didn't even bother to take a meeting. Most of my friends thought I was obviously going to fail. Most scientists told me biology was way too complex to be understood by computers. And they are right. Biology is complex. Startups often fail. But lucky for me 2 US investors said 'if it works it could be a really big thing. Why don't you try it'
- Throughout the course of history, we've seen that *when* people set their minds to wildly ambitious goals and ideas, the seemingly impossible starts to become possible. Audaciousness requires freedom, and freedom requires institutional trust. Does this apply to the Dutch academia as well I wonder?
- I might be mistaken living abroad already for so long, but it is my perception that In the Netherlands many of our institutions have stopped trusting our researchers.
- Our best academic talent spends far too much time writing proposals for various grant programs. Increasingly research money is earmarked in advance, thus depriving potentially brilliant researchers from the opportunity to freely pursue what they know is best.
- Every piece of potential research needs to be meticulously written down and analyzed before it is deemed worthy of even starting.

- In my entire time at Google, I have never had to write a proposal that was more than 10 slides.
- Our time is characterized by major global challenges, climate change and aging to name only two. We cannot solve these problems with incrementalism. We need to trust our academic talent. They need to be bold and allowed to solve these problems.

Call to Action: Encouraging Audaciousness

- As I accept this award, I'm standing on the shoulders of a few small teams that shared a belief that something hard was indeed possible.
- I am not a model student or academic. The inspiration I hope some will take away is that even without being the best student or researcher you can get where you want to be if you are willing to take risks.
- Congratulations on yet another Academic year. For 2024, Be audacious in your research and be bold in your learning.
- Thank you again for this honor.