

Flanders amongst the global leaders in AI research and transfer to industry

Preface by Jo De Boeck, Chief Strategy Officer imec.

Artificial intelligence often evokes images, dystopian or not, of a future where robots and machines are smarter than humans and may have taken away our freedom as well as our jobs. AI is a catch-all phrase that has now also reached the people in the street and is subject to many misunderstandings and prejudices.

In industry, however, there is a better understanding of AI than one might suspect. In April 2019, VLAIO and imec organized a workshop at Agoria in Brussels during which we collected the first feedback from companies on our plans in the AI impulse program.

I was pleasantly surprised by the level of knowledge about AI, the sense of reality and the extent to which Flemish companies are already working with it.

In my opinion, artificial intelligence in the business world should only be about one thing and that is value creation. In which scenarios can AI, just like any other technology, offer added value over an existing situation?

With data often being an important factor: how can one extract relevant knowledge from a dataset that is impossible for people to thoroughly understand? A well-known concept in big data and cloud computing, where Asian and American players have been in the driving seat for some time now.

For Europe and Flanders, there are still plenty of opportunities to develop AI-based applications using smaller, but extra complex datasets.

How, for example, can you build machine-learning algorithms on data that is unclear or strongly contaminated?

And how can you analyze this locally without having to address large cloud-based servers? In many cases, small data is just as important as big data. Also, Flanders and Europe have a potential pioneering role to play in the non-technological aspects. How do you deal with data in an ethical and democratic way?

How do you make artificial intelligence transparent, reliable and accountable?

All these aspects – and much more - are addressed in the AI impulse program that will run in the coming years.

In this AI-special, we provide a glimpse into the role that imec intends to play in this and how we work together with our partners. I am already looking forward to the exciting time that we, together with our research partners and the business community, are going to have to bring Flanders to the top in AI research and its applications in industry.



About Jo De Boeck

Jo De Boeck received his engineering degree in 1986 and his PhD degree in 1991 from the University of Leuven. Since 1991 he is a staff member of imec (Leuven). He has been a NATO Science Fellow at Bellcore (USA, 1991-92) and AST-fellow in the Joint Research Center for Atom Technology (Japan, 1998).

In his research career, he has been leading activities on integration of novel materials at device level and new functionalities at systems level. In 2003 he became Vice President at IMEC for the Microsystems division and in 2005 started Holst Centre (Eindhoven) as General Manager of IMEC-Netherlands.

From 2010 he headed imec's Smart Systems and Energy Technology Business Unit. He is part-time professor at the Engineering department of the KU Leuven and held a visiting professorship at the TU Delft, Kavli Institute for Nanoscience (2003–2016). In 2011 he became Chief Technology Officer and in 2018 he was appointed Chief Strategy Officer. He is member of imec's Executive Board.