

**Speech by Ir Loek de Vries, President and CEO of Royal Ten Cate, on the occasion of the opening of the Innovation Centre Digital Finishing, as part of The Factory of the Future development programme, on Tuesday, 9 December 2014 in Nijverdal, the Netherlands**

**I would like to welcome:**

- The King's Commissioner for the Province of Overijssel**
- The Provincial Executive member for Economy in the Province of Overijssel**
- The Mayor of Hellendoorn**
- The Alderman of Economics of Almelo**
- Professor Marc Van Parys, our guest speaker**
- All our other guests**

**Ladies and Gentlemen!** Welcome to this innovative location – innovative from both a historical and a future perspective. The industrialization of textile production in the Netherlands started here at TenCate more than hundred fifty years ago with the use of steam technology for the analog finishing of textiles. In the past decade, work has been carried out on digital finishing of technical textiles.

On the occasion of the three hundredth anniversary of Royal Ten Cate in October 2004, an inspirational exhibition was presented in De Beurs van Berlage in Amsterdam, where we shared our vision of the future in words and images with our business contacts. Parts of that vision have since then been achieved.

The message of that time continues to apply: functional materials make an essential contribution to a safer and healthier world through their positive impact on both economic development and sustainability.

An important part of our vision was that the European manufacturing industry – and thus also TenCate – should invest in smart and sustainable manufacturing processes. One of the decisions that TenCate made was to use inkjet technology for the finishing of technical textiles. What is needed for this – first and foremost – is a knowledge of textile printing. We now stand on the threshold of the market launch.

In the past decade research programs have enabled us to take fundamental steps forward in two breakthrough techniques. The long-term research programmes **Digitex**, **T-Rex** and **Digifin** were the first steps towards the ongoing **The Factory of the Future** development programme. These related to fundamental research, applied research and investment in pilot production, respectively. They were necessary in order to understand the complex interaction between fluids and textile substrates, and to develop these and make them ready for production.

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TenCate currently has developed two digital techniques using inkjet: **drop-on-demand** and **continuous-flow**. Back in July 2013 some of you witnessed the launch of drop-on-demand technique through our UV printer, which we are currently using for high-grade outdoor fabrics. This UV curing solution was a joint development by Reggiani Macchine, TenCate and Xennia Technology. Outside this building you can see a trial assembly of numerous possible applications on outdoor fabrics. And we would like to invite you to step outside later and take a look at this.

In the hall next door, continuous-flow technique has been set up: the Osiris machine. We will be using this technique mainly for finishing processes, partly in view of its high production speed. Tests will shortly begin on the development of finishes and prints for protective fabrics. The Osiris machine will be further refined for this purpose, and this will be done together with our partners Reggiani Macchine, Norma Group and Gemini Electronics, two of whom are local.

Step by step, we are firmly on course from ever more high-grade 'technical textiles' to ultimately producing 'smart textiles' in the future. I am deliberately not mentioning the next phase – the ongoing development towards 'intelligent textiles. Professor Van Parys will say something about this shortly.

TenCate is working, together with our customers for high-grade outdoor fabrics, on the customer-focused marketing of numerous new applications and solutions. A direct link to the **internet of services & things** will add a major new dimension and also offer a joint challenge. Our digital approach will facilitate the **on-demand** and **mass-customized** printing and finishing of outdoor fabrics by TenCate. Our customers will increasingly have the opportunity to bring their logistics, garment-making and marketing digitally in line with this.

When we look back in ten or twenty years' time, the overall development will indeed prove to be a revolution, but now we regard this progress merely as evolution, precisely because it is a long and profound process of change, 'deep change'.

**Ladies and Gentlemen!** In its long history TenCate has always been an initiator and innovator of a great many technological developments. In this way our company has, time and again, added a new dimension – and thus new value – to innovations for functional applications. On your left you can see just a small selection of TenCate advanced materials and solutions: our value propositions.

Digital inkjet technology can help us to link our processes with those of our B2B customers. This connects with the current theme of "**Smart Industries**". Our customers will be able to respond to trends in end-markets more quickly, and this will have an impact on the logistic processes across the entire production chain. We have, for example, recently tested consumer reactions to the theme "**Freedom of Design**". We were able to respond immediately to the designs submitted by consumers, which was of benefit to our customers. New marketing methods were also used here, such as social media.

The focus of TenCate is the marketing of these innovative solutions for the needs of our customers and their end-users. This is our 'licence to operate'. It is also our basis for growth and future value creation for our stakeholders, ranging from shareholders, employees, business partners, the region of Twente, the provinces in the north-east of the Netherlands and the global market as a whole.

**Ladies and Gentlemen!** Digital finishing is the key technological innovation of this century for the textile industry. The **drop-on-demand** and **continuous-flow** techniques enable several substrates to be digitally finished, using fluids such as inks and coatings.

The first development phase has been completed: we can now **print digitally** with the right production speeds using two digital techniques. The next phase involves **digital finishing**, a part of **The Factory of the Future** development programme. Each of these is a step in a flow of many innovations that will follow. Our technology roadmaps point the way to the future.

Our sustainable objectives relating to digital printing and finishing are clear: to reduce **energy consumption** to 60 per cent, to decrease **water consumption** to no less than 80 per cent and 100 per cent respectively with UV printing, and the use of **inks and chemicals** to as much as 90 per cent.

In addition, our quality objective is 100 per cent **First Time Right**. In this way we can cut back overall production costs considerably. Above all, our market-focused aim is to change the characteristics of our advanced materials by digitally applying new functionalities, such as a self-cleaning capability, et cetera.

Finally, I should like to thank the province of Overijssel, the region of Twente and the European Union for their involvement in the development of digital inkjet technologies in the past ten years, as well as for their future commitment to The Factory of the Future development programme.

**Thank you for your attention and for coming to Nijverdal.**