

Life DeNTreat webinar, 24th February 2021

Extracts of the intervention of M. Scalia, Director Sustainable Business at EURATEX

- EURATEX, the European Textile and Apparel Industry confederation, keen to join the Life Dentreat project to help investigating new solutions for **textile environmental issues**, especially on **potential or emerging matters**;
- **Digital Textile Printing** spread globally thanks its flexibility and benefits in comparison with conventional printing techniques. Applications focus on garments, displays, and home textiles. Benefits include saving of water and chemicals due to the tailored application of dyestuff;
- Some **market** overviews suggest the global digital textile market growing from a 2017-worth of approximately € 1,4 Billions to €2,2 Billions in 2019. Steep growth projected over the coming years;
- In the project early phase EURATEX investigated digital printing in textile manufacturing across Europe and the problem of Nitrogen concentration;
- Digital printing is difficult to be monitored statistically as it is part of the wider finishing, interviews were run, albeit in small sample. The majority of concerned companies exposed to nitrogen concentration issues appear to be located in the south / south west part of Europe and specialised in fashion applications;
- Some 8 out of 10 companies appear to use different types of machines, each company produce different quantities from 10.000 linear meters to up 2.5 /3 Millions and choose digital printing for at least 50% and an average of 80% of its machine range;
- Application of urea ranges from 80gr to 200gr per kg also based on the raw material, cotton appears to require less urea in pretreatment than other cellulosic fibers;
- **Measures applied by companies** to reduced the nitrogen concentration include: research through a pilot plant, look for alternative products and alternative chemicals, effort to reduce the use of urea in pre-treating e.g. recovering and reusing of pre-treatment preparations, optimization of the process, collection and reuse of pre-treatment paste, adjustment of the recipe as much as possible;
- In **Belgium** and **Germany** the interviewed professionals from textile districts indicated absence of any problem with excessive nitrogen residue in companies' wastewater. The respondents remarked that pre-treatment with urea is only applicable when printing with reactive dyes and on natural or cellulosic fabrics;
- Companies producing on **polyamide** (carpets) and **polyester** (wall covering, garments, knitted fabrics) expressed no issues and **regular denitrification** process were mentioned as measures to address nitrogen content in wastewater;
- Companies in **Italy** and **Portugal** use **urea for pre-treatment** of fabric in digital textile printing on natural and **cellulosic fabrics** only. Several were addressed by Life DeNTreat;
- Nitrogen release is one of the many parameters addressed by European and National authorities together with Industries and NGOs in the **Textile BREF**. The latter is currently being reviewed and is expected to set the new plants pollution limits by 2021.