Funded by the Erasmus+ Programme of the European Union

**Project title**: Circular Textile Platform

**Number of students: 4 to 6**

**Project duration**: 20 weeks

**Project frame** (Bachelor/Master, small project): Bachelor, Master, 20 weeks project

**Background:**

Textile consumption has a tremendous impact on the environment. The production, use and disposal of textile materials belong to the major contributors to environmental pollution. Textile recycling could be one element to decrease this impact. In Europe many recycling initiatives and technologies emerge, that could contribute to a circular economy of textiles. One of the major challenges in this circular economy is the match of supply and demand.

**The challenge:**

Textile recyclers often look for specific textile materials and structures that fit into their processes. This is often in misbalance with companies that can offer textile waste streams. The match between supply and demand could be improved by an online platform or market, where companies that would like to offer textile waste could describe their waste streams. Additionally, recycling companies could look for specific textile materials for recycling. This platform could bring supply and demand together and enable a more intensive trading of textile waste in Europe. The students are asked to come up with a concept for such an online platform. A working prototype would be the desired product. Additionally, the students could look at legal aspects of textile waste trading/exchange in Europe.

**The company:**

The research group Smart Functional Materials at Saxion University of Applied Sciences, Enschede, The Netherlands, investigates applied research questions from industry in close collaboration with students and teachers of relevant study programs. The research line “sustainable textiles” runs several projects in relation to the circular economy in textiles. Recycling is a particular research focus. In 2013 a chemical recycling process for cotton was invented, which transfers cotton textile waste into virgin high quality regenerated cellulose fibres. In 2019 the research group started to build a European network for textile recycling to establish a circular economy for textiles in this area.

**Supervisor:**

Dr. Jens Oelerich (j.j.oelerich@saxion.nl)

Senior Researcher and Teacher at the research group Smart Functional Materials, Coordinator of the research line “Sustainable Textiles”.

**Candidate backgrounds**

Possible study programmes:

Fashion and Textile Technologies

Chemistry

Environmental Sciences

ICT

Media, Information & Communication

Law, environmental regulations

**References and complementary description:**

None