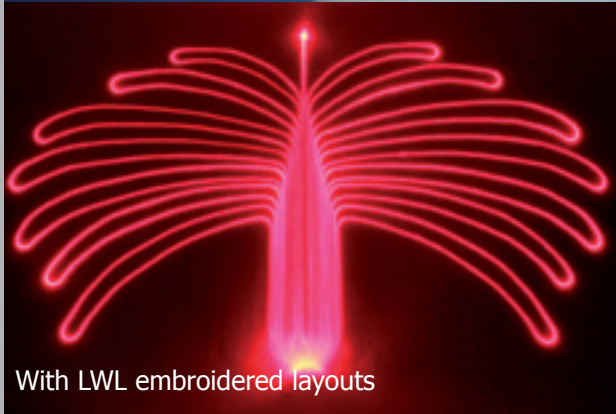
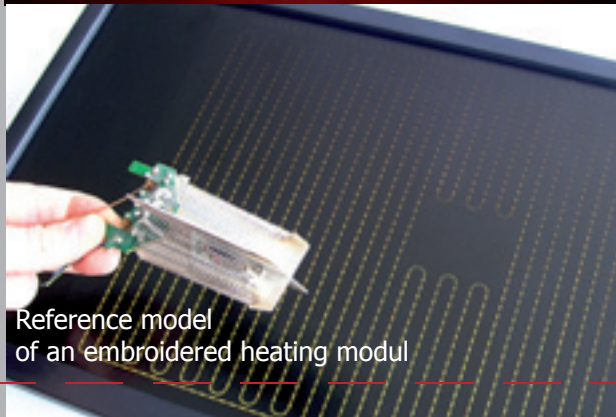


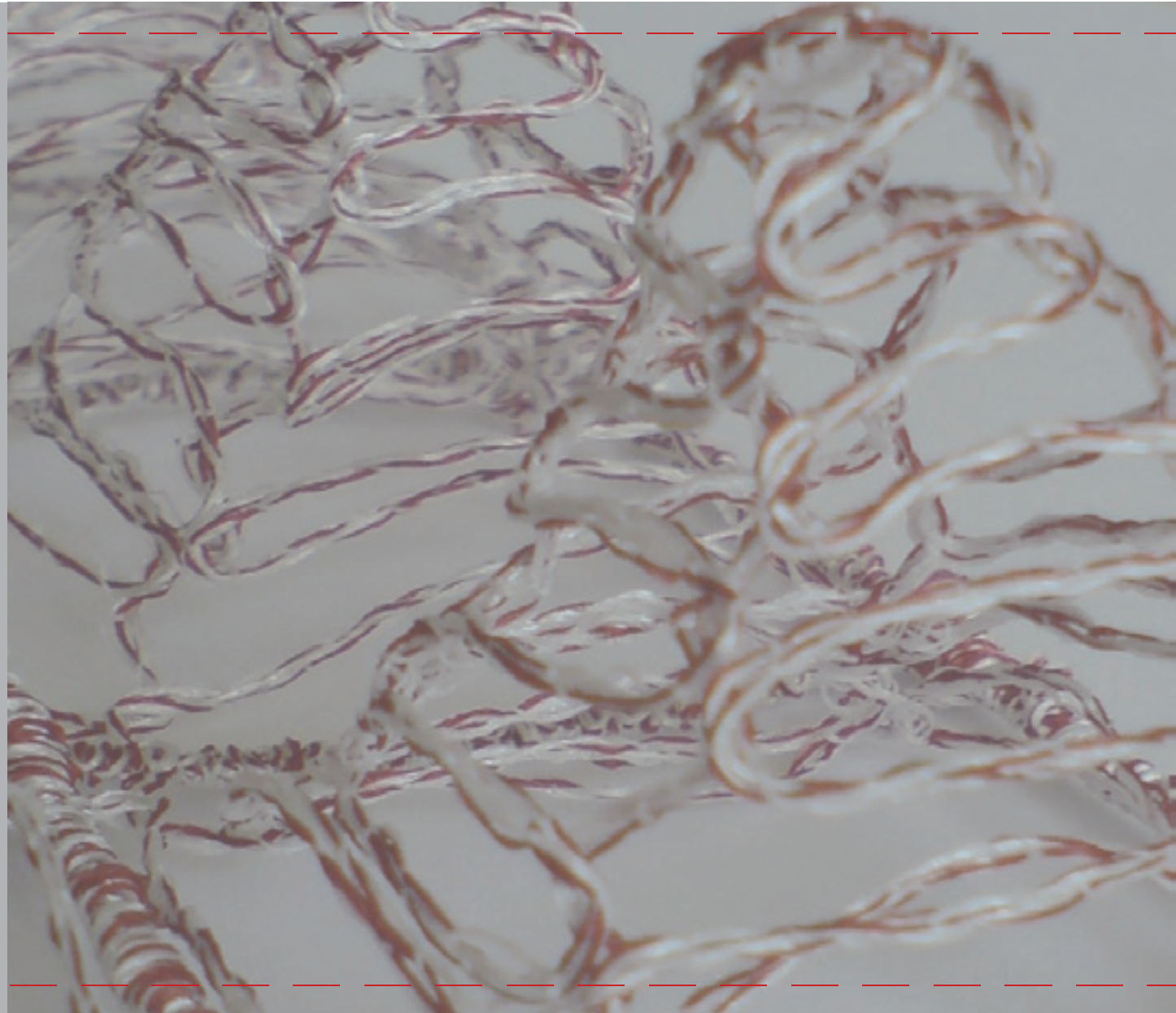
Embroidered sensors in rotor blades



With LWL embroidered layouts



Reference model  
of an embroidered heating modul



The **embroidery industry of the Vogtland** concentrates more and more on the technical embroidery for the utilization in future markets since 2007. Based on the growth pole highSTICK, completed in 2010, the embroidery enterprises and further competent partners of the industry, research and education did syndicate to fulfill the permanent increasingly market demands of innovative high performance materials due to technology developments. In the process it will be profited by the competence of the established industries in the near of Plauen, Chemnitz, Dresden and Leipzig, as well as from the regional and national educational establishments in order to realize the next level of the technology platform in the growth pole highSTICK plus.

The main target is the development and embroidery technical production of innovative functional integrated high power and compound materials. Additionally a new concept of a modern modular embroidery machine platform will be developed.

#### **Utilizations**

- Fibre composite materials:
  - Wind power stations
  - Composite supporting structures
  - Light weight components with improved functional density
  - High power plastic elements for the automotive engineering
- Energy efficiency:
  - Heating solutions with individual possible to dimension
  - Energy efficiency illuminating systems
- Sustainable water economy/circular flow economy
  - Hydraulic construction elements

#### **Alliance partner**

##### • **Technical embroidery:**

- Dietrich Wetzell KG, Plauen
- Gerber Spitzen & Stickereien GmbH, Rebesgrün
- Modespitze Plauen GmbH, Plauen
- Stickperle GmbH, Falkenstein
- W. Reuter & Sohn  
Spitzen und Stickereien GmbH, Reumtengrün

##### • **Machine building:**

- Fischer Automation GmbH, Köditz
- KSA GmbH & Co. KG, Altenburg
- Lehmann Maschinenbau GmbH, Jocketa
- SL-Spezialnähmaschinenbau  
Limbach GmbH & Co. KG, Limbach

##### • **Textile finishing and fibre finishing:**

- Alterfil Nähfaden GmbH, Oederan
- Textilausrüstung Pfand GmbH, Lengenfeld

##### • **Upstream and downstream process:**

- Albert Polenz GmbH & Co. KG, Döbeln
- EDC Electronic Design Chemnitz GmbH, Chemnitz
- Froyt Kondensatoren und Bauelemente GmbH, Freiberg
- IFC – Composite GmbH, Haldensleben
- IMM Ingenieurbüro GmbH, Mittweida
- KSG Gerätetechnik GmbH, Waldheim
- Messebau Schmieder, Chemnitz
- M&S Umweltprojekt GmbH, Plauen
- Norafin Industries (Germany) GmbH, Mildenaun
- Weischlitzer Tiefbau  
und Umweltschutz GmbH, Weischlitz

##### • **Research Establishments:**

- Kompetenzzentrum Strukturleichtbau e.V., Chemnitz
- Leibniz-Institut für Polymerforschung Dresden e.V., Dresden
- Materialforschungs- und -prüfanstalt an der Bauhaus Universität Weimar
- Sächsisches Textilforschungsinstitut e.V., Chemnitz
- Technische Universität, Fakultät für Maschinenbau, Professur Strukturleichtbau und Kunststoffverarbeitung, Chemnitz
- Textilforschungsinstitut Thüringen-Vogtland e.V., Greiz