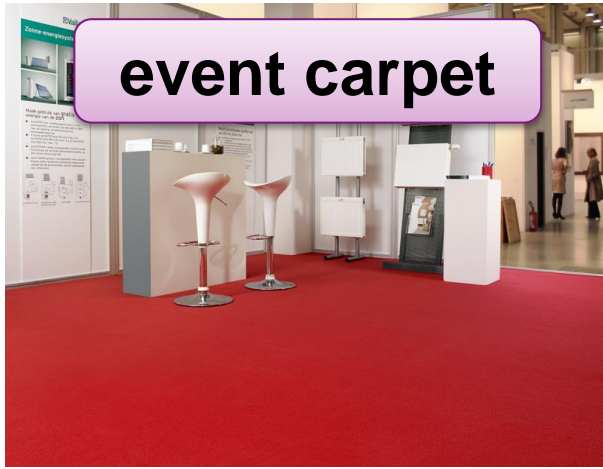




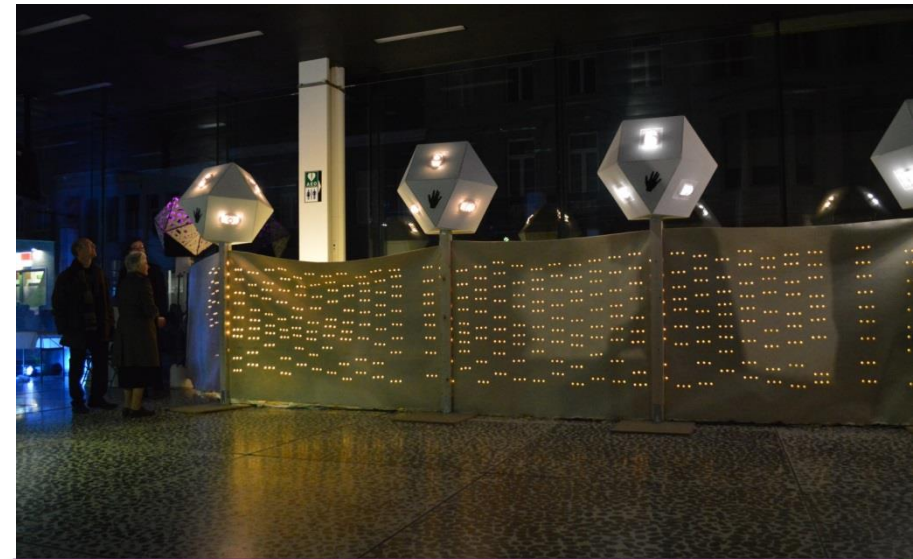
SMART CARPET

**BJORN VAN KEYMEULEN, PEDRO CLAEREN, GUY VAN DEN STORME,
DOMINIQUE ANDRIES, FREDERICK BOSSUYT, WARD VERLINDE,
MANUEL VAN DEN STORME AND JOHAN DE BAETS**

CONCEPT

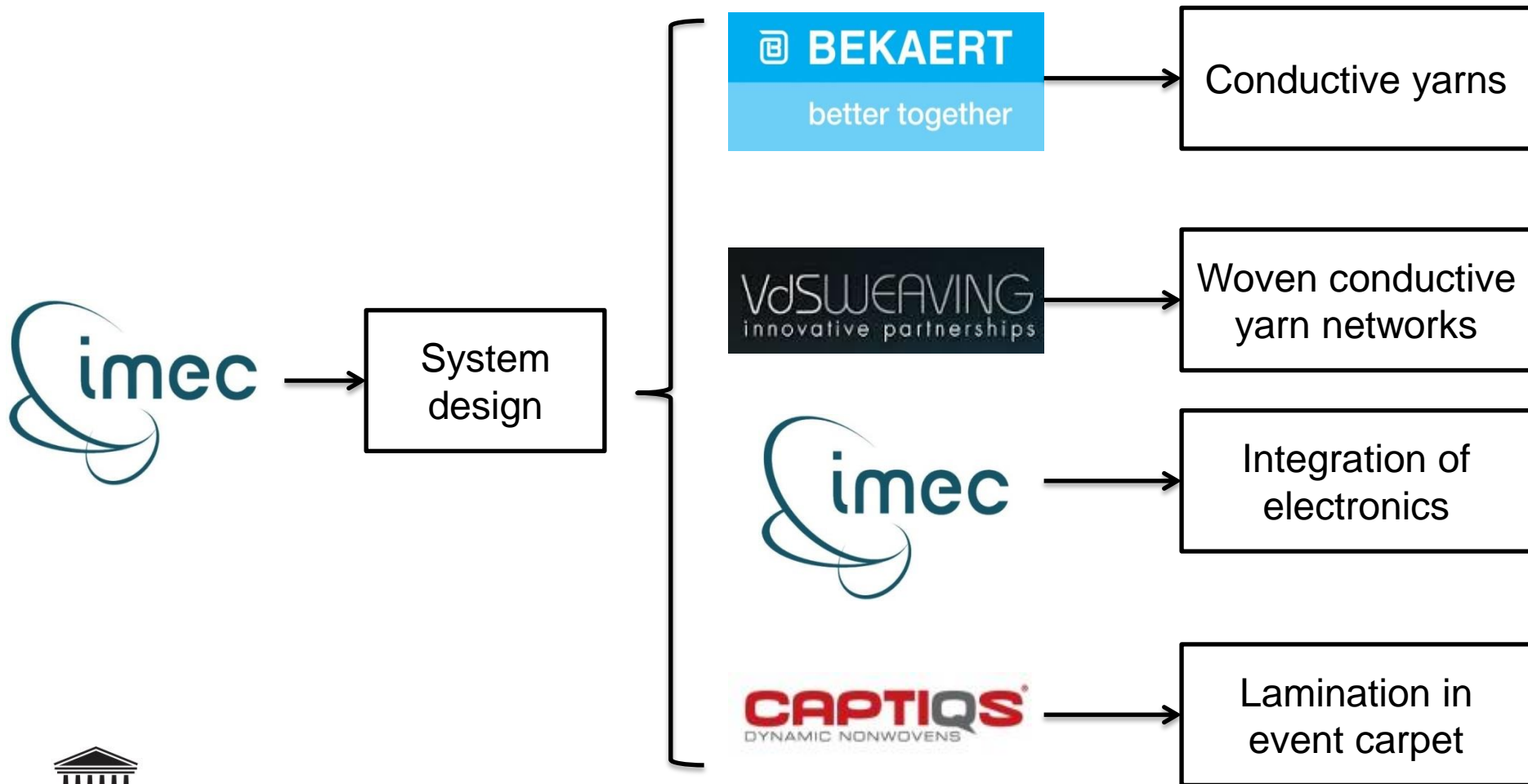


electronics



MANUFACTURING PROCESSES

OVERVIEW



MANUFACTURING PROCESSES

CONDUCTIVE YARNS

Company: Bekaert nv

Product: stainless steel based cond. yarns

Features:

- ▶ Non corrosive
- ▶ Can conduct large currents
- ▶ Low resistivity
- ▶ Compatible with weaving & nonwoven processing



MANUFACTURING PROCESSES

WOVEN CONDUCTIVE YARN NETWORK

Company: VDSweaving nv

Product: scrim with conductive yarns

Features:

- ▶ Cost effective
- ▶ Mechanically stable
- ▶ Small weaving tolerances



MANUFACTURING PROCESSES

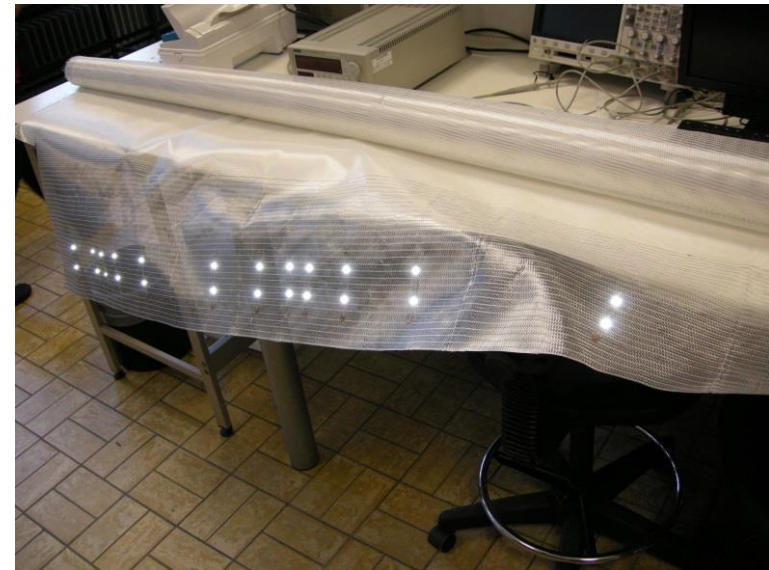
INTEGRATION OF ELECTRONICS

Company: imec vzw

Product: integrated electronic components

Features:

- ▶ Stretchable
- ▶ Bendable
- ▶ Reliable
- ▶ Moisture protection



MANUFACTURING PROCESSES

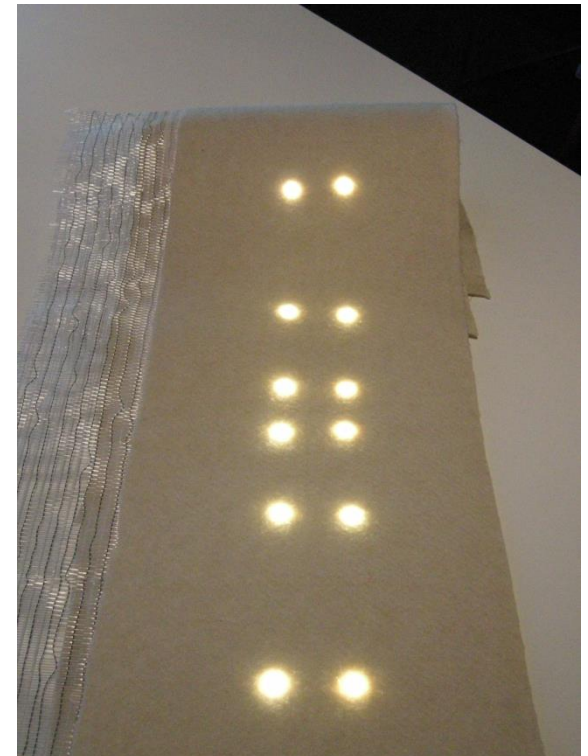
PRODUCTION EVENT CARPET

Company: Captiqs (Balta Group)

Product: event carpet with electronic functionalities

Features:

- ▶ Mechanical protection
- ▶ Visual disappearance



TOPICS

- ▶ Concept
- ▶ Stretchable technology
- ▶ Textile integration technology
- ▶ Manufacturing processes
- ▶ **Final demonstrator**

FINAL DEMONSTRATOR



FINAL DEMONSTRATOR



ACKNOWLEDGEMENTS



www.bekaert.com



www.vdsweaving.com



www.captiqs.be



www2.imec.be



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