

# cure & care



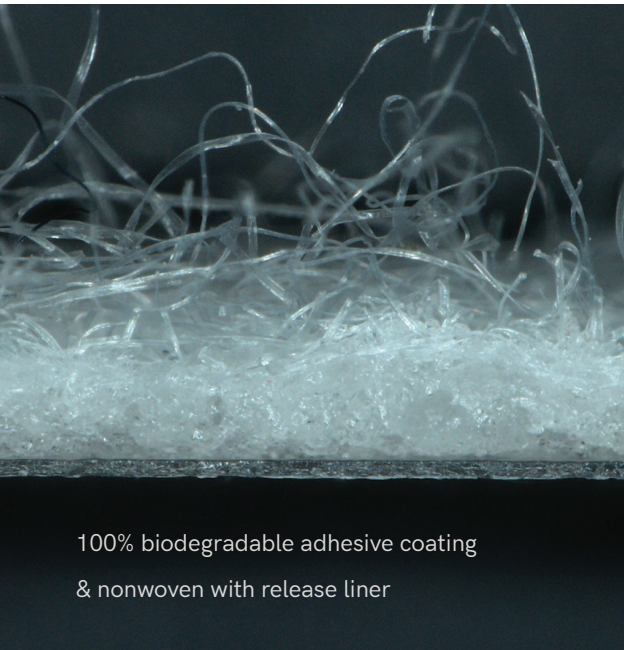
## textile innovations

Conductive prints on textiles





Cure & Care textiles are designed to restore the patient to health, to improve the patient's comfort experience, and to optimise and facilitate the work of healthcare providers and medical staff



100% biodegradable adhesive coating  
& nonwoven with release liner

medical textiles

textile implants

hospital clothing

hygiene textiles & wipes

interior textiles and floorcoverings

smart assistive textiles

## MOTEX - monitoring textiles

Development of a smart textile that measures knee angles of revalidating patients or athletes during physical activities. The smart textile is equipped with integrated sensors and corresponding embedded electronics. The electronics are placed on a stretchable circuit board, condition the sensor signal and transmit the data wirelessly to a smartphone app.



**techtextil**  
innovationaward.2017  
new application

# innovation needs expressed by the healthcare sector and patients

Nurses are daily working with hospitalised, disabled and elderly people and therefore have a perfect view on what innovations in textiles might be useful to make their tasks easier and improve the quality of life of their patients:

**HOSPITAL LINNEN:** soft, odourless, linting-free, anti-allergic hygiene textiles with increased absorption ...

**MEDICAL AIDS:** washable, breathable, moisture regulating, modular, attractive and comfortable support stockings, wheelchair covers, hip and knee-caps ...

**CLOTHING FOR NURSES AND PATIENTS:** thermo-physiological comfort, hygiene, self-cleaning, corporate image and personal identification, fit and special sizes, ergonomics

**BEDDING:** monitoring of sleeping disorders, comfort, bedsores prevention, hygiene (washable mattress protection cover and linen, anti-odour...)

**HYGIENE:** functionalised textiles to increase hygiene, prevention of bacterial contamination, eco-friendly decontamination and waste treatment, reduction of fine dust and allergens

**INTERIOR TEXTILES:** improved thermal and acoustic comfort, walking comfort and safety, better cleaning

**ASSISTIVE TEXTILES:** e-textiles for the monitoring of vital parameters, controlled drugs release, remote diagnosis, alert, access control, fall detection, communication

## research & development

**SMART TEXTILES** incorporating textile sensors for remote patient monitoring

**SMART CARPETS** for occupant monitoring ensuring more safety and independence to the patient

**TEXTICEMENTS** with controlled drugs release and cosmetotextiles

**ENZYMATIC FUNCTIONALISATION** of native collagen structures to be used as scaffolds in tissue engineering

**NANO-FIBROUS** mesh with nano-topography using cellulose for vertebral disc repair

**3D-BIODEGRADABLE MATRIX** allowing the graft of autologous ovarian tissue or isolated follicles in patients with impaired fertility following a gonadotoxic treatment

**FUNCTIONALISED MATTRESSES** (probiotics, anti-odour...)

**INCORPORATION** of **SMART MATERIALS** (PCM, thermo-responsive materials, barrier functions...)

**AROMA** and **LIGHT** therapy

**WOUND HEALING** bandages

**ENHANCED COMFORT** of hygiene-related textiles

**ULTRA-HYGIENIC** wipes

## testing

innocuity of textiles

microbiological cleanliness

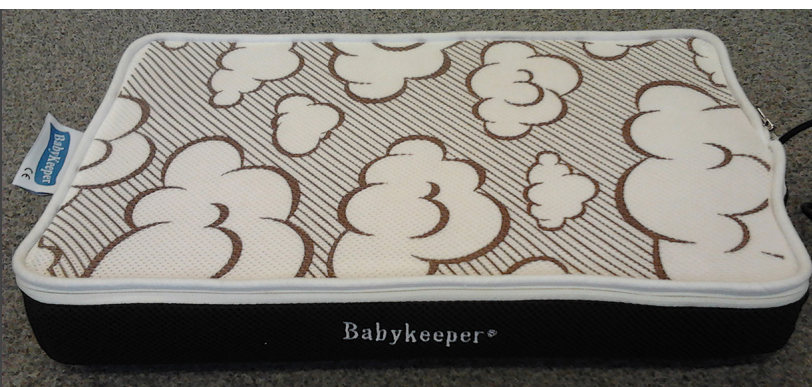
barrier properties

thermo-physiological comfort assessment

Sudden Infant Death Syndrome (SIDS) unexpectedly causes infants to die in their sleep without any evidence of accidental asphyxia, inflicted injuries or organic diseases.

In the BABYCARESLEEP project Centexbel and colleague researchers, paediatricians and mattress manufacturers have developed a smart mattress to detect sleep apnea in real-time and to restore the baby's breathing while recording data on this little-known syndrome.

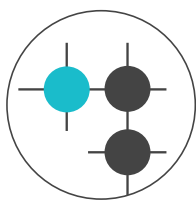
(EU FP7 Framework - agreement no. 606088)



The easy-to-use BABYCARESLEEP smart mattress allows medical interventions taking place, while paediatricians have access to the recorded data.



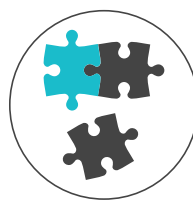
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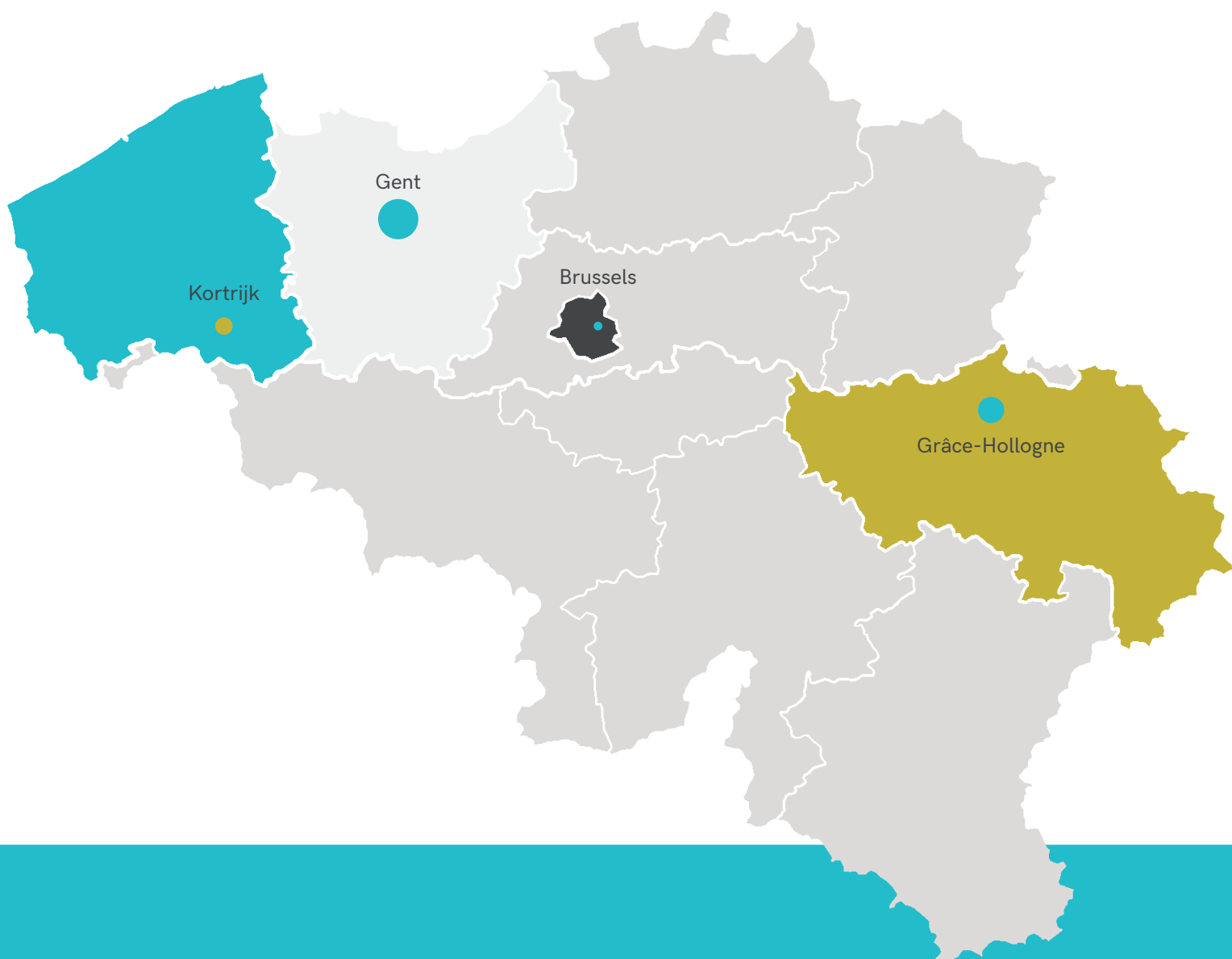
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