

# Consultancy

Services to the industry

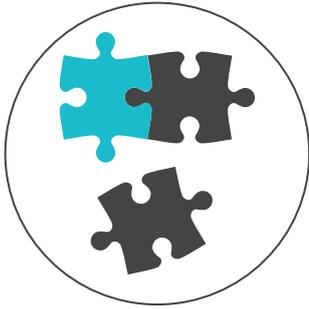


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## Disclaimer

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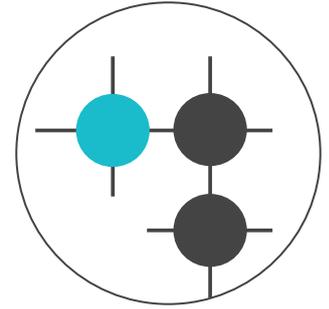
SOLVE



CREATE



INSPIRE



CONNECT

Industrial globalisation, climate change, depletion of resources, and societal evolutions urge companies to adjust their organisations to meet the changing needs and challenges by

- adapting existing products and services
- developing new products and services
- introducing new technologies
- implementing eco-design
- embracing circular economy (repair, reuse, recycle of products and processes)
- improving or adapting the quality management system
- implementing new business models
- obtaining certificates
- exploring new markets
- providing in-company training
- developing new marketing strategies

To manage all these changes, to implement new systems and models, and to find technological solutions, your company may count on the professional and strictly confidential services of our consultants, who perfectly understand your sector and are familiar with the daily reality of both SMEs and large companies. They have access to all Centexbel-VKC testing, certification and research facilities and are in constant dialogue with local and international cross-sectoral networks dedicated to research, technology, and innovation.

## The Centexbel-VKC business-oriented services create added value for your company

A number of services are free of charge for our members and associated members; other services are offered against prices compliant with the market.

For most services, your company can apply to governmental funding. Our consultants will help you in preparing your dossier.

Contact our consultants at <https://www.centexbel.be/en/contacts>

# TECHNOLOGY

To increase your company's competitiveness and innovative power, the Centexbel-VKC technological consultancy services focus on:

- product development and optimisation
- implementation of best available and innovating processes and techniques
- incorporation of specialty chemicals
- substitution of hazardous substances
- material characterisation, reuse and recycling of textile and plastic waste flows
- identification of opportunities and problem solving

In addition to a personal approach and follow-up of each individual case, Centexbel-VKC also offers

- extended testing facilities by expert labworkers in our specialized, BELAC (NBN EN ISO/IEC 17025) accredited laboratories : physical and chemical testing, burning behaviour, plastics characterisation and microbiological evaluation
- application platforms for product development and prototyping including several extrusion lines, textile finishing, printing, and coating lines, knitting and braiding machines, plastic converting and processing lines, 3D printers, and composite presses
- assistance in the preparation of (funded) research projects
- thematic training sessions, publications, and newsletters
- cross-sectoral and international network with companies, authorities and research centres
- literature, standard, and patent research (also on demand)

On the basis of a thorough analysis of your company's needs and relying on their extensive expertise, the Centexbel-VKC consultants work out the best workable solution for your company.



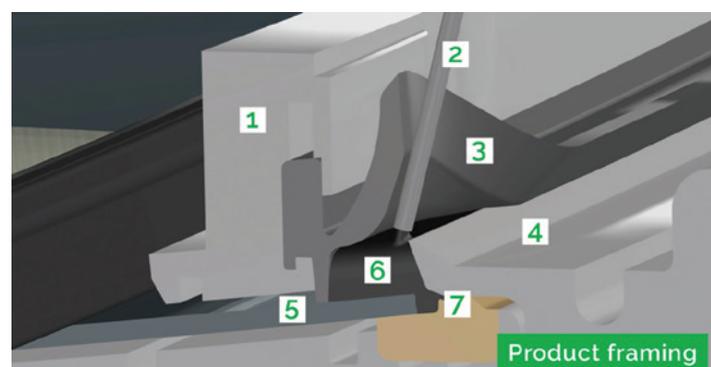
## Chemistry for Better Engineering

Centexbel-VKC helped Exypnos to identify a chemical substance "C" that more than doubles the lifespan of a silicone mould.

Exypnos (Kruibeke - Belgium) technically supports companies in product framing and component integration of open roof and battery systems in cars, solar panels and cupola roofs. The automotive sector discovered Exypnos because of their WST Plus technology, that is used to equip car roof tops with a polyurethane sealing and to mechanically enshrine the entire electrical blinding system with the same polyurethane system instead of the traditional contact adhesive system. The glass panel is placed in a silicone mould in which the polyurethane (PU) materials is injected by means of a nozzle. After curing, the silicone mould is removed without damaging the surface quality of the PU. The original set-up allowed to perform some 100 production runs with one silicone mould, before the silicone was irretrievably corroded and unsuited to perform further runs.

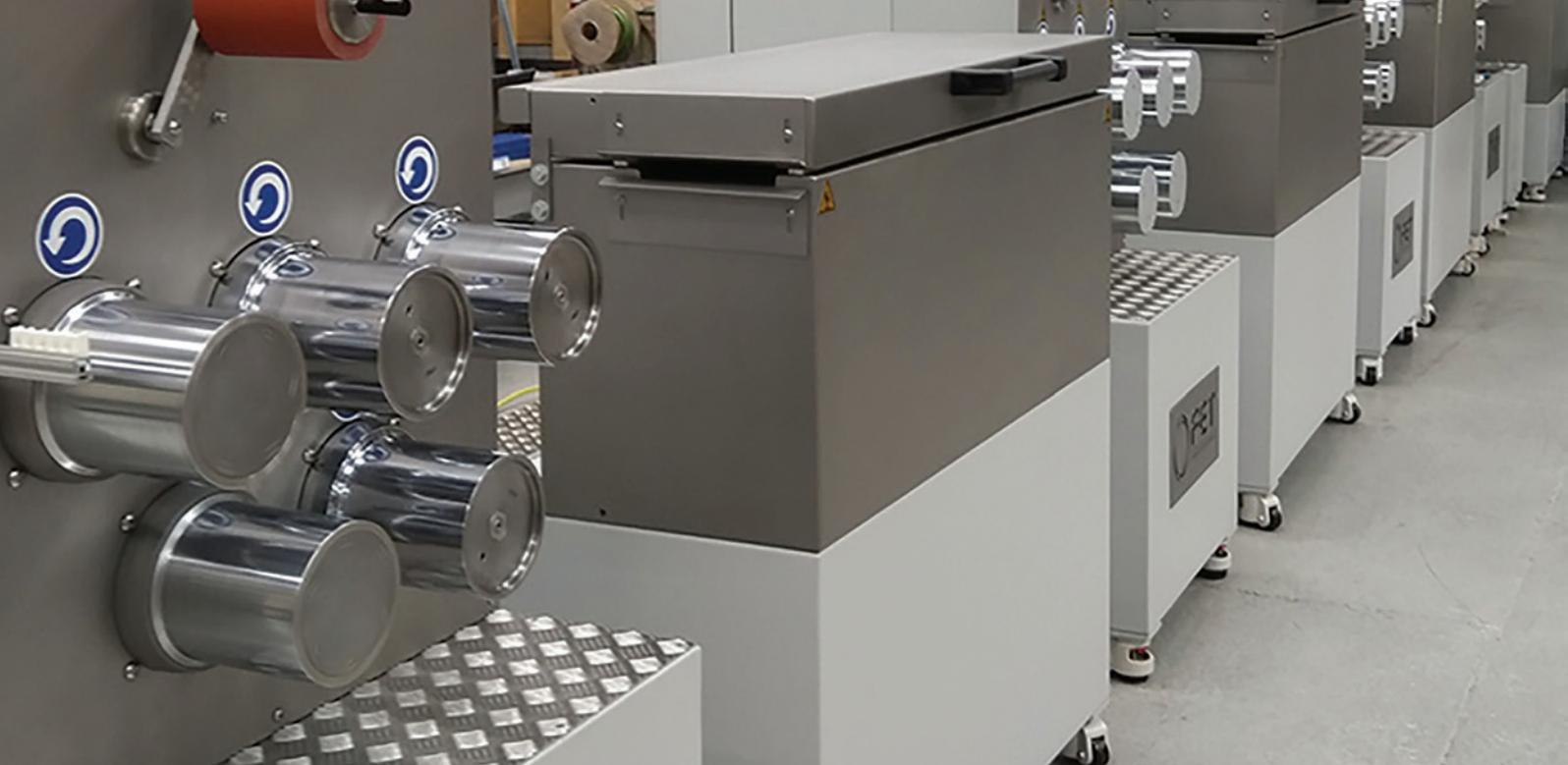
Because creativity and innovation are at the core of this growing company, Exypnos decided to contact Centexbel-VKC to solve this corrosion problem.

The collaboration between Centexbel-VKC and Exypnos resulted in the identification of component C, an ingredient that more than doubles the lifespan of the silicone mould. The output of a single production day at Exypnos chemicals guarantees its customers the production of 7500 car roof systems.



### List of symbols

1. Mould structure
2. Nozzle
3. WSTplus profile
4. Mould structure
5. Panel to be framed
6. Polyurethane
7. Soft Tool



## Themes

- Use of biodegradable, biobased and recycled materials
- Circular economy
- Process optimisation
- Industry 4.0



The joint investment of Centexbel and Devan Chemicals in the Spin Master, a semi-industrial extrusion line, is an example of how to accelerate the marketing of innovations in the field of multifilaments and fibre functionalisation and to smoothen the technical transition from lab scale to industrial scale.

## Extrusion, prototyping and material analyses

With its comprehensive extrusion platform, Centexbel-VKC gives access to the newest technologies and expertises in the field of textile extrusion and plastic processing.

The platform reflects the objective of the Factory for the Future initiative to reinforce the innovative strengths of the industry by contributing to the development of novel materials and products.

Textile and plastic converting companies, as well as polymer producers, recycling companies, and suppliers of chemicals appeal to the Centexbel-VKC platforms to perform trial runs to create and evaluate material and product samples prior to industrial upscaling.

# INNOVATION

## Innovation is a “necessary condition” to meet global challenges

Centexbel-VKC encourages and assists companies in their search of new, original and successful (niche) products, in looking for new applications for existing products, and in the implementing new technologies and business models.

Urgent and global challenges including mobility, ageing population, health issues and climate change are offering new opportunities to companies.

Centexbel-VKC sets up international and cross-sectoral networks to develop new ideas in a dynamic setting involving other companies, suppliers, and knowledge centres to create innovative products and services with a high added value to reinforce your competitive position.

## Innovation beyond borders and sectors

Because of the combined expertise and competences in textiles and plastics, Centexbel-VKC is closely linked with the chemical industry, a main supplier to both industrial sectors. Also other sectors are addressed in their capacity of research partner, supplier or consumer group of plastic and/or textile consumer goods.

In collaboration with the Enterprise Europe Network, Centexbel-VKC brings companies and organisations into contact with international partners by means of partnering meetings in the framework of our international conferences.

# CIRCULAR ECONOMY

## RESOURCE EFFICIENCY

Since many years, Centexbel-VKC is focusing its research, services and certification programme on

- recycling polymer materials from textile, plastic and composite (production/post-consumer) waste flows
- refurbishing and reusing end-of-life products
- optimising biobased materials
- responsible chemical management
- development of sustainable products and processes...

This expertise is put at the disposal of companies by means of publications, studies, and the development of testing methods in view of new international standards for recyclates. To this end, Centexbel-VKC invests in lab equipment to analyse and characterise recyclates and to determine their chemical composition.

Centexbel-VKC's efforts also reflect the EU strategic long-term vision for a prosperous, modern, competitive and climate-neutral economy by 2050<sup>1</sup> by investing into realistic technological solutions, and aligning action in key areas such as industrial policy, finance, or research (while ensuring social fairness for a just transition).

## Centexbel-VKC assists the industry in its transition to a circular economy:

- research and innovation projects on natural, recycled and biobased raw materials and additives
- assistance in drafting projects related to circular economy and to the circularity of polymer products
- support in selecting the right investments to reduce the environmental impact
- continuous screening of environmental legislation that we will translate into practical guidelines
- REACH and CLP<sup>2</sup> support
- participation in designated standardisation committees and pre-standard studies
- conformity audits in view of legislation and directives
- assistance in business licence applications and notifications
- advice on environmental and energy measurements
- eco-labelling (OEKO-TEX®) and product certification
- conferences, training sessions and workgroups on ecological issues
- assistance in the preparation of eco-management systems (ISO 14001, EMAS, and QA-CER<sup>3</sup>)

<sup>1</sup> [https://ec.europa.eu/clima/policies/strategies/2050\\_en](https://ec.europa.eu/clima/policies/strategies/2050_en)

<sup>2</sup> CLP = classification, labelling en packaging

<sup>3</sup> QA-CER: certification of recycled content

LINEAR ECONOMY

RECYCLING  
ECONOMY

CIRCULAR  
ECONOMY



CC by Circular Flanders



## RECYCLING

### Research & Development

Centexbel-VKC initiates and cooperates in several research projects on recycling and more importantly on the reuse of recycled materials in the creation of high-value products, funded by Horizon 2020, Cornet, Interreg, Flanders Innovation & Entrepreneurship, Plan Marshall 4.0, Greenwin...

### Characterisation of recycled materials

Continuous investments ensure our capability to perform chemical and mechanical characterisations of virgin and recycled polymers.

### Certification of recycled materials/products/processes/business models

QA-CER: Centexbel-VKC has developed - in collaboration with BQA - a certification procedure for recycled content and the quality of products based on recycled materials.

# STANDARD CELLS

## Standards are crucial in product development

Because consumers expect products and materials to comply with generally applicable product requirements as well as with their own product specifications, standards are playing an important role in all industrial activities (purchasing, selling, product development, etc.).

Centexbel has created five crucial standards cells to monitor the evolution of standards and regulations, to inform the textile industry by means of publications, work groups and information sessions and by facilitating personal contacts between companies and experts. The standards cells are an initiative of the Belgian FPS Economy to better inform SMEs about the impact of standards on their companies as well as to promote the application of standards.



### In practice, the Centexbel standard cells

- support companies in the application of standards in
  - technical product files
  - quality management manuals
  - quotes
  - client specifications
  - users instructions
  - warranty conditions
  - complaint handling procedures ...
- assist companies in their search of standards
- explain new standards
- support companies in evaluating new products in view of safety and health standards
- help companies to interpret and apply standards
- discuss test methods, equipment, values, tolerances ...
- determine product conformity
- participate in work groups to develop new and revise existing standards
- provide information on standards in view of product labels related to quality, ecology, and sustainability

### Centexbel's standard cells

1. Technical textiles
2. Clothing textiles
3. Interior textiles
4. Nonwoven and textile products for hygienic and cosmetic applications
5. Use of recycled plastics and textiles as raw material



# PATENT CELL

## Sustainable innovations and IPR

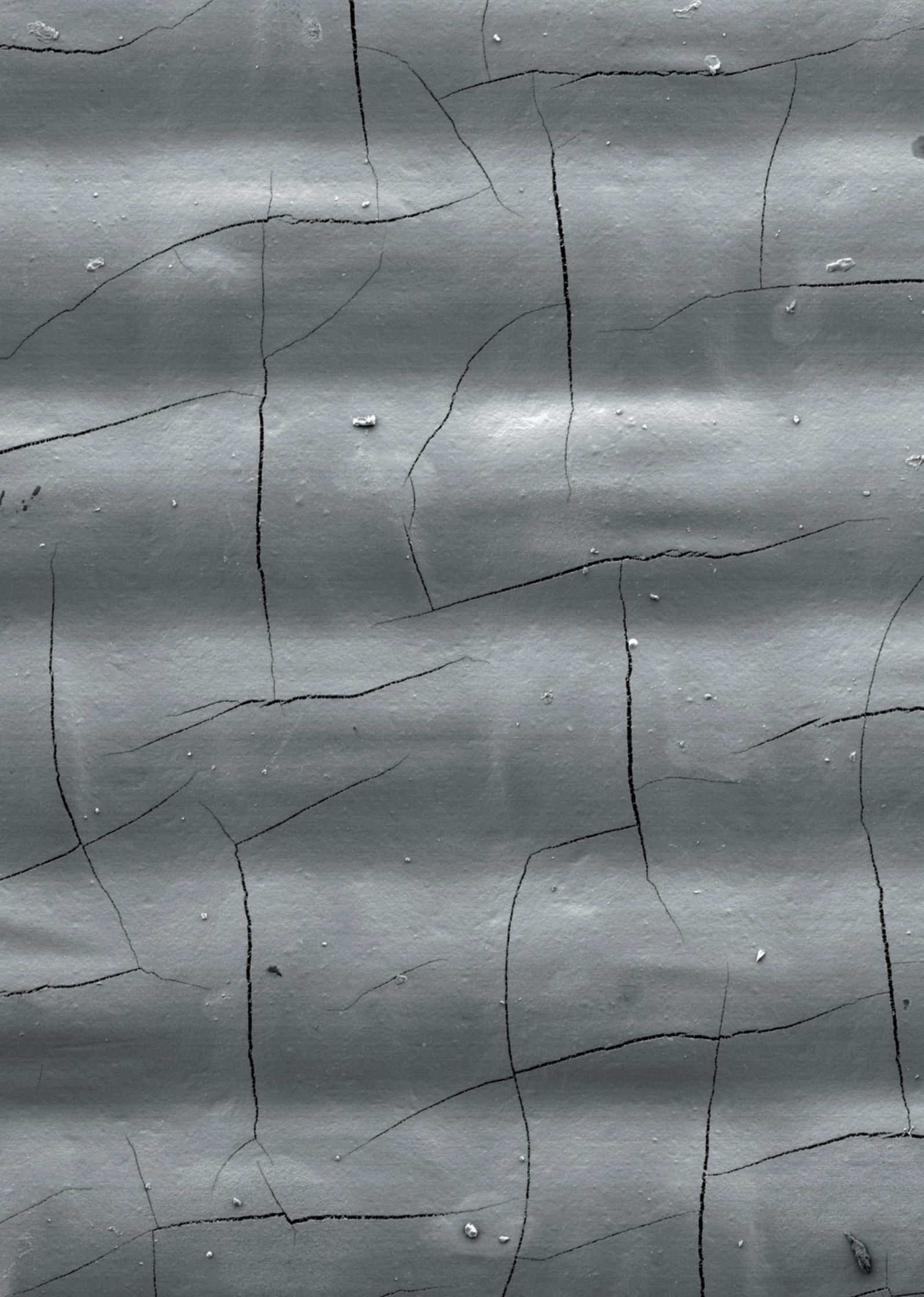
Companies rightfully want to protect the fruits of their research. By protecting your own products, designs, models, and developments, your company can do more than just get a good price. Filing a patent allows a company to secure its intellectual property rights, but there is more to it than meets the eye.

Because of the growing importance of IPR (Intellectual Property Rights) to companies, Centexbel has developed a patent cell in collaboration with the FPS Economy (Belgian ministry of economic affairs) to support companies in their IPR processes. The Centexbel patent cell focuses on strategic as well as very practical issues.



### The Centexbel patent cell offers:

- support in defining your IPR-strategy
- advice on patent valorisation: licences, collaboration networks, patent management
- explanation on filing procedures, research, maintenance, adaptations, contestations, etc. of Belgian, European or international patents
- patent requests
- training sessions on the use of espacenet
- patent search
- advice on whether or not to file a patent
- information on the protection of new products
- screening "freedom to operate"
- technical documentation
- investigation and evaluation of new patents and infringements
- research of additional technical information to support a patent
- assistance in drafting the technical part of a patent (please consult a patent office to draft the claim)
- looking for alternative solutions for patented applications, products and/or processes
- support in the case of IPR disputes
- advice on the value estimation of a IPR strategy: costs, revenues, exploitation



# QUALITY ASSURANCE

Quality assurance (QA) prevents mistakes and defects in manufactured products and/or services and avoids problems when delivering solutions or services to customers.

ISO 9000 defines QA as *"part of the quality management focused on providing confidence that quality requirements will be fulfilled"*

Quality is a primary requirement to be met at all times in response to consumers' demand for "fitness for use".

The Centexbel-VKC quality consultants assist your company in:

- investigating and solving quality-related problems
- measuring / follow-up of quality parameters
- handling of quality-related complaints
- analysing products and processes
- FMEA (Failure Mode and Effect Analysis), SPC (Statistical Process Control), 6 sigma...
- setting up improvement actions

consultancy:

- quality insurance during product development
- implementation of new quality control techniques
- product specifications, maintenance instructions, warranty conditions

Centexbel – 1000 square

Centexbel – 1000 square (1 mm<sup>2</sup>)

# DISSEMINATION

Dedicated articles, newsletters, training and information sessions, seminars and international conferences on textiles and plastics.

## Accredited training centre

Centexbel-VKC is recognized by Flanders Innovation & Entrepreneurship (VLAIO) - kmo-portefeuille - # DV.O101549 and Walloon authorities - chèques technologiques.

Our programme of specialized training and information sessions allows your company to closely follow up technological evolutions and to

- expand the skills of your staff members
- to develop the know-how of your experts
- to enhance the versatility of your personnel

## Centexbel-VKC INFO

Each edition is dedicated to a central theme and provides useful information on our services, R&D projects, and tests.

Theme-related patent search, examples of new products and innovative ideas will motivate our readers to think outside-the-box.

## Centexbel-VKC Annual report

The Centexbel-VKC annual reports provide an illustrated overview of our key activities and main achievements over the past fiscal year.

## BREAKFAST SESSIONS

Early morning sessions addressing product and production related themes, patents, test methods, innovations.

## HORIZON EXPLORATIONS

A luncheon meeting point for companies to explore new trends and innovation opportunities within a certain textile and plastic product group.

## CENTEXBEL CAFÉ

Evening sessions to pick up ideas and discuss them with experts and companies in a relaxed atmosphere.

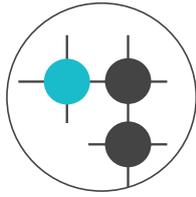
## TRAINING SESSIONS

Comprehensive training programme for the plastic converting industry, from an introduction to polymers, over material characterisation to hands-on technical training sessions.





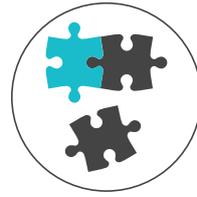
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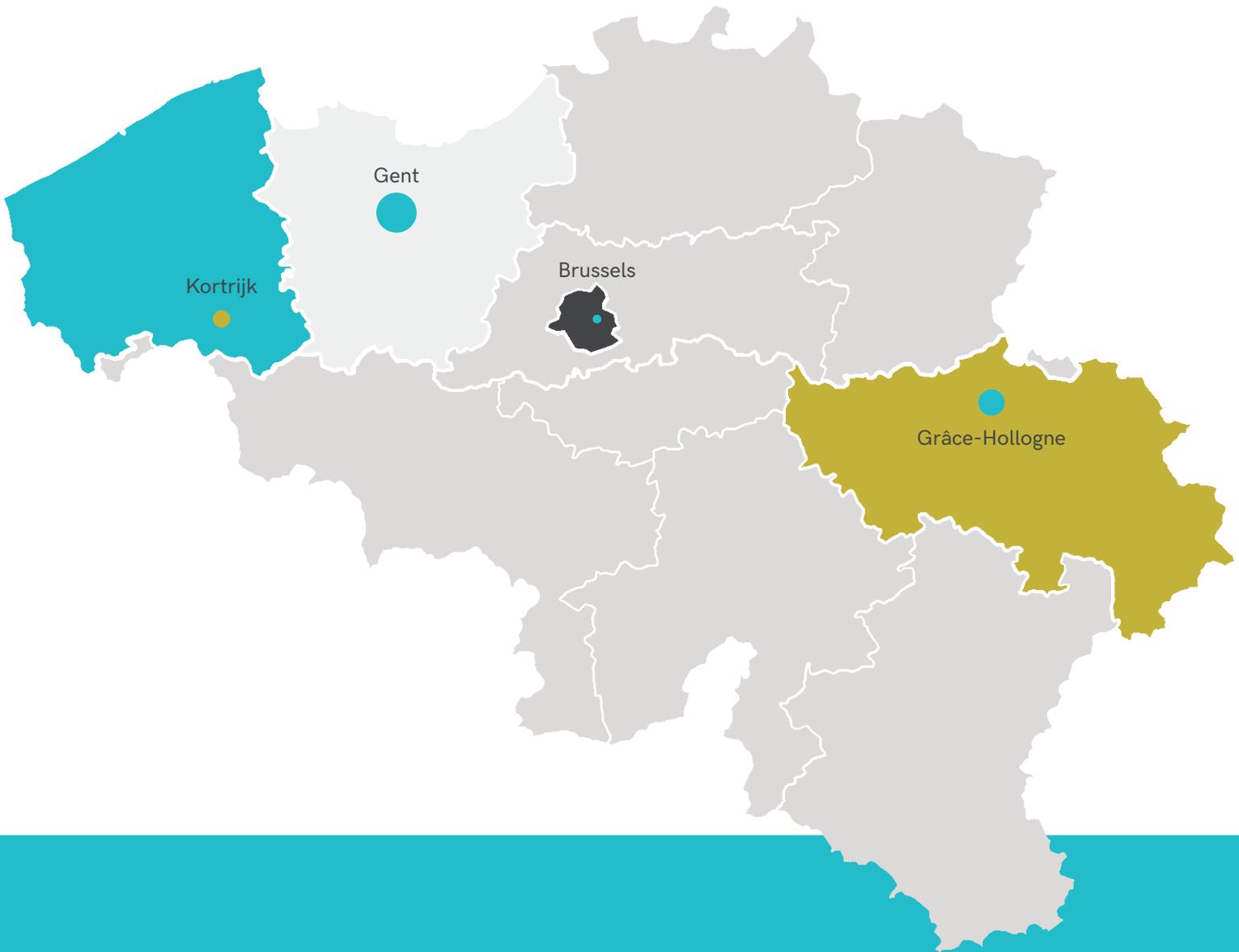
CONNECT



INSPIRE



SOLVE



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