



**DuraBUILD**  
*materials*



**WHERE MATERIALS**

**BUILD**



**SUSTAIN**



**HEAL**

**STRUCTURES**

**FOCUS ON**  
**GHENT UNIVERSITY**  
**DuraBUILD*materials***

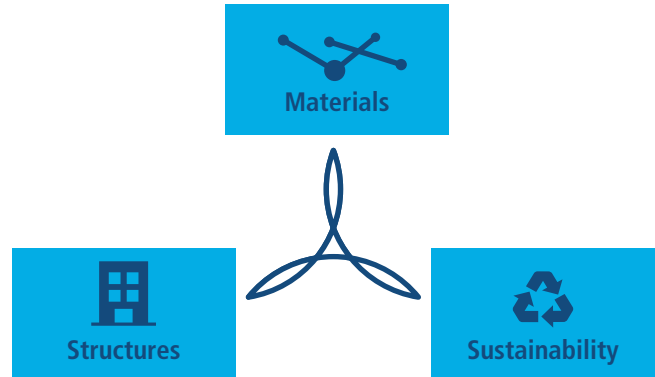


# Your partner for innovation in construction

At Ghent University **DuraBUILDMaterials**, abbreviated as **UGent DBm**, we focus on innovation and development of durable building materials, products and techniques in collaboration with the construction sector. Fostering our mission **'innovation in construction'**, DBm provides support and advice from lab-scale trials to industrial implementation, including sustainability evaluation.

Our **main values** are:

- Top-notch expertise in the field of building materials and structures, including sustainability assessment.
- Tackling application-specific challenges for the construction sector.
- Access for industry to technology and knowledge developed by our research teams.
- Helping our academics to bring research result into practice.



# UGent DBm

DBm is a network of **12 research teams** at Ghent University. With more than 80 researchers we unite expertise, know-how and research infrastructure on durable building materials, products and techniques. It is **your access gateway** to the innovation, technology transfer and industrial collaboration activities of Ghent University in the field of construction and the built environment.

In recent years new developments appeared as a result of **advanced research** on the microstructure of building materials, physico-chemical modelling of deterioration phenomena, engineered constituent materials, advanced tools for life-cycle analysis and optimization of building components. Acting on this knowledge, DBm facilitates multidisciplinary and collaborative application-oriented research, technology development and transfer of original research results in the **construction sector**.



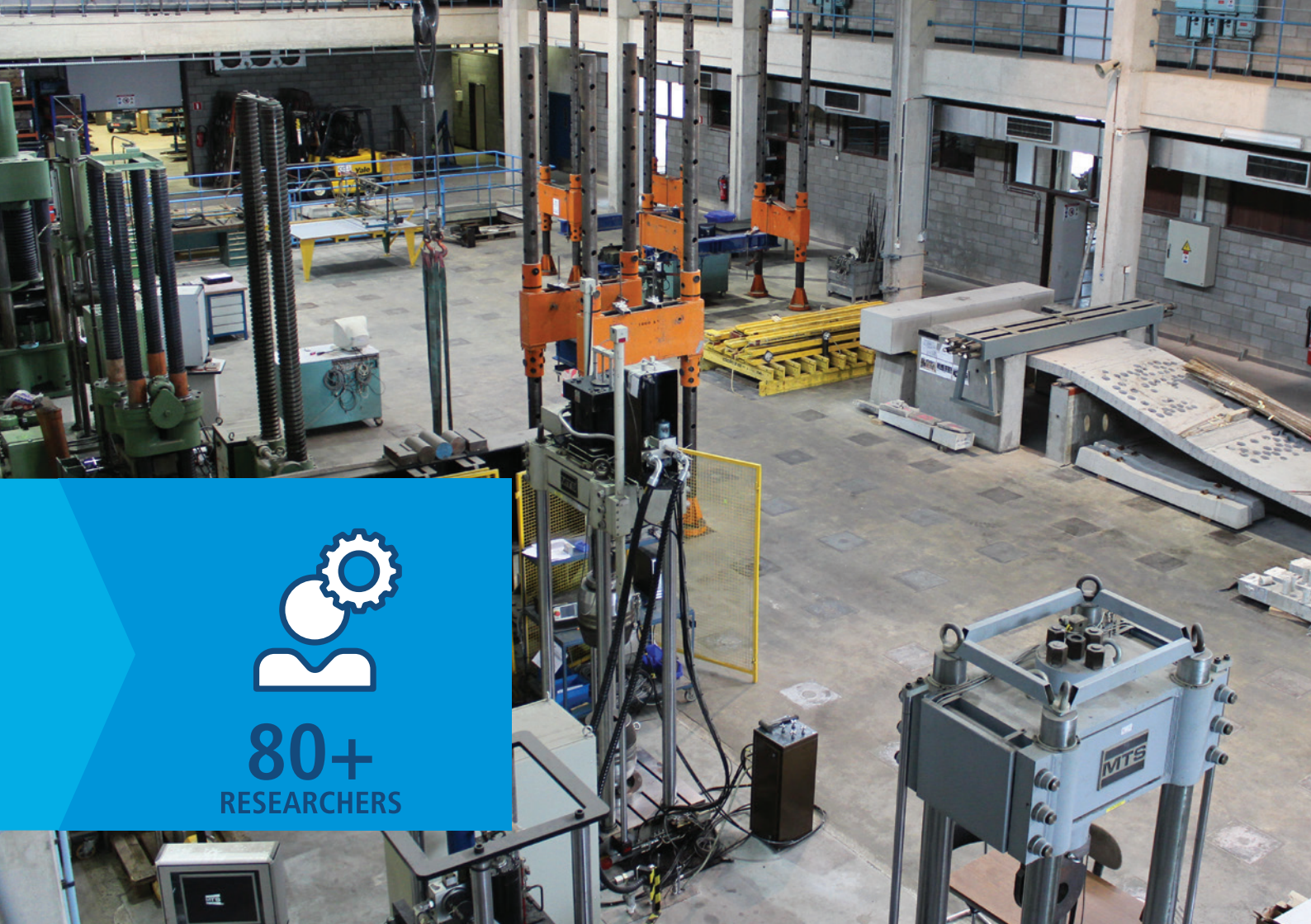
**3**  
FACULTIES



**12**  
RESEARCH TEAMS



**18**  
PROFESSORS



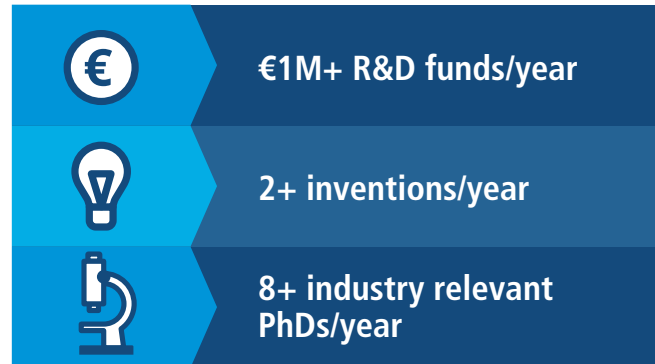
**80+**  
RESEARCHERS



# For industry

DBm offers **access to a network of laboratories** and actively seeks cooperation with companies in the framework of technology exploration, characterization of materials, quality testing, research & development, and technology licensing.

- **Application-oriented research.** Our collaborative research projects with industry, with or without co-funding by IWT or EU, amounts over €1M/year. We are strongly engaged to address the construction industry needs on short, medium and long term technology developments. We have a lot of experience in national and European funding instruments and R&D project management.
- **Services and consultancy.** At DBm we have unique infrastructure and expertise to address industry questions through lab-testing and advice. Our research teams include EN ISO 17025 certified laboratories for certification testing. In addition, we are a recognized technology exploration service provider for the 'kmo-portefeuille'.
- **Patent portfolio and technology licensing.** At the back-bone of DBm, our doctoral and post-doctoral staff performs fundamental and basic research, and often interacts with the construction sector during their research. At DBm about 8 industry relevant PhDs per year are defended and about 2 new inventions per year are identified. As such, over the years our patent portfolio has increased and provides additional means to transfer technology.



# For researchers

At Ghent University DBm **we support the work of our researchers** in the field of structural and civil engineering, when interacting with industry or bringing their research results into practice, creating added value for industry and society.

- **Share your expertise.** Reaching out through services, consultancy or applied research is an effective way for academics to share knowledge and expertise, and to interact with industry, government or the public sector. Our experience at DBm is available to researchers in contract negotiation, IP (intellectual property) support and addressing construction industry needs.
- **Commercialise your research.** DBm helps researchers to apply for application-oriented research projects, to look into technology roadmaps, to disclose inventions and submit patent applications, to provide access to UGent IOF proof-of-concept funding and to license IP.
- **Start a spin-off company.** At DBm we support the start of university spin-offs with business development support and helping to seek investment money (e.g. ven-

ture capital fund Qbic). Our experience in company creation spans the spin-offs:



# Expertise

The DBm activities are focussed on its integrated '**Structures - Materials - Sustainability**' vision. Indeed, at DBm we strongly believe in studying building materials from nano-scale up to the structural level, also looking into building components, and with clear emphasis on the sustainability of building materials and structures. Within this framework we offer in-depth academic expertise and research capacity on a select range of durable building materials, products and techniques.

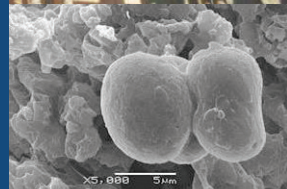
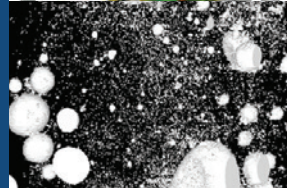
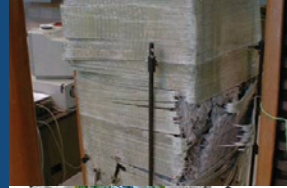


DBm expertise





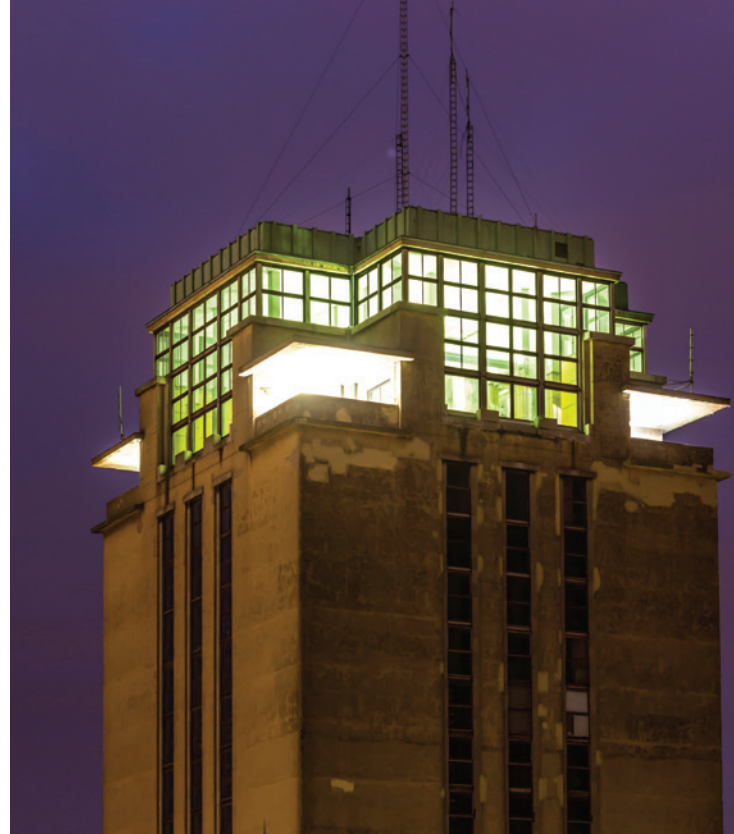
# OUR AREAS OF EXPERTISE



# Team

The Ghent University laboratories and research teams taking part in DBm are spanning expertise across 3 university faculties. These 12 research teams are:

- **Magnel Laboratory for Concrete Research**
- **Laboratory for Microbial Ecology and Technology (LabMET)**
- **Mechanics of Materials and Structures**
- **Engineering Geology**
- **Fire & Fire Safety**
- **SmartLab**
- **Laboratory for Model Research**
- **Geotechnics Laboratory**
- **Industrial Engineering in Construction**
- **Bridges and Roads**
- **Centre for Façade Components**
- **Technical Textiles**



## Our knowledge experts

- Prof. Luc Taerwe (promotor DBm) | structural behaviour of concrete structures
- Prof. Patrick Ampe | construction detailing & roads
- Prof. Jan Belis | structural glass
- Prof. Adam Bezuijen | geotechnical engineering & environmental geotechnics
- Prof. Veerle Boel | microstructure & mechanical performance of SCC/UHPC
- Prof. Nico Boon | microbial processes in construction
- Prof. Robby Caspeepe | structural reliability
- Prof. Veerle Cnudde | natural building stones & pore-scale processes in geomaterials
- Prof. Hans De Backer | roads & waterways
- Prof. Nele De Belie | concrete & environment
- Prof. Wouter De Corte | structural composites & construction
- Prof. Joris Degrieck | mechanics of materials
- Prof. Ronald De Meyer | computational design & building information modelling
- Prof. Geert De Schutter | concrete technology & sustainability
- Prof. Bart Merci | fire safety

- Prof. Wim Moerman | prefabricated structures
- Dr. Nathan Van den Bossche | building components & construction techniques
- Prof. Lieva Van Langenhove | technical textiles in construction

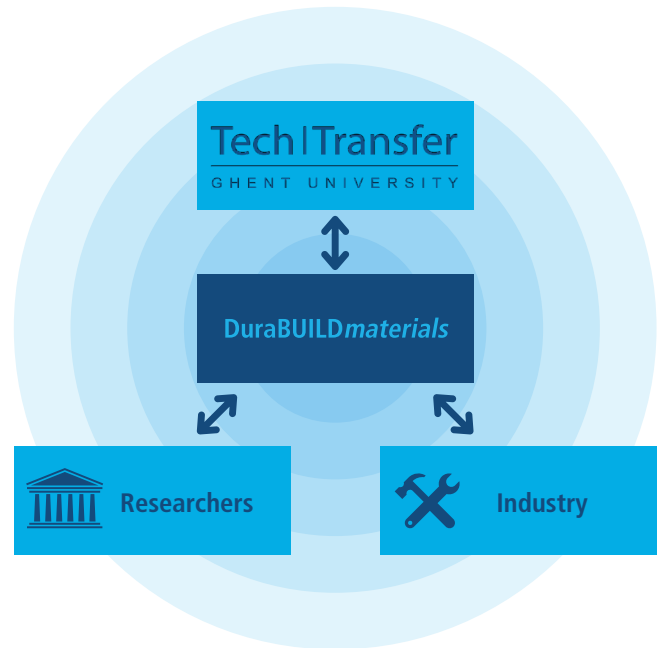
## Our business development experts

- Prof. Stijn Matthys | technology & business development
- Dr. Philippe Jacobs | intellectual property
- Peter Wauters | legal advise
- Dr. Patrick Vankwikelberge | corporate advise & vc
- Dr. Piet De Vos | licensing
- Dr. Tine Demoor, Dr. Nathalie Vandepitte, Karen Curé | IOF, EU and IWT funding
- Brenda Debbaut, An Dedeurwaerder | management assistance

# How we can help

At **DBm** we share university expertise with industry, government or the public sector, we help industry in addressing their technological challenges and we support researchers translating new ideas into practice. As such, DBm is **your point of contact** to access Ghent University excellence in the field of construction and the built environment.

To strengthen our business development expertise, we work closely together with the central Technology Transfer Office of Ghent University.

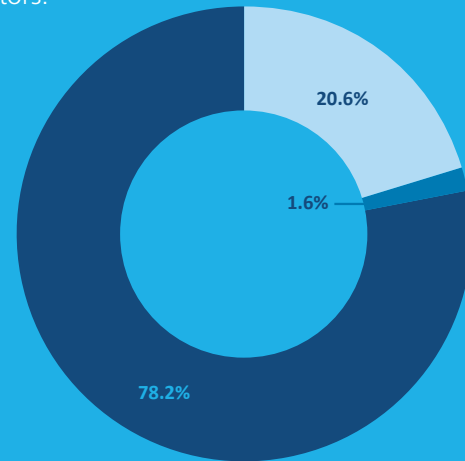


# Ghent University innovation hub: a creative community for a changing world

Ghent University, abbreviated as **UGent**, is a top 100 university and one of the major Belgian universities counting over 41,000 students and 9,000 employees, including more than 4,885 doctoral and post-doctoral researchers. With its vision 'a creative community for a changing world', UGent prides itself on being a **knowledge hub** with innovation at the core of the institution and being an active partner in the Ghent region as an important economic hub. At UGent more than 260 million euro of R&D expenditures are realized, of which more than 20% is financed by industry.

At DBm we provide direct access to our talent pool and foster collaboration with industrial partners. We are located at the **Tech Lane Ghent Science Park** (Technology Park Zwijnaarde), which is one of the UGent science parks allowing academia and industry to operate close

and housing the Incubation and Innovation Centre (IIC UGent) as a general incubator and the Material Research Cluster (MRC Gent) as one of the domain specific incubators.



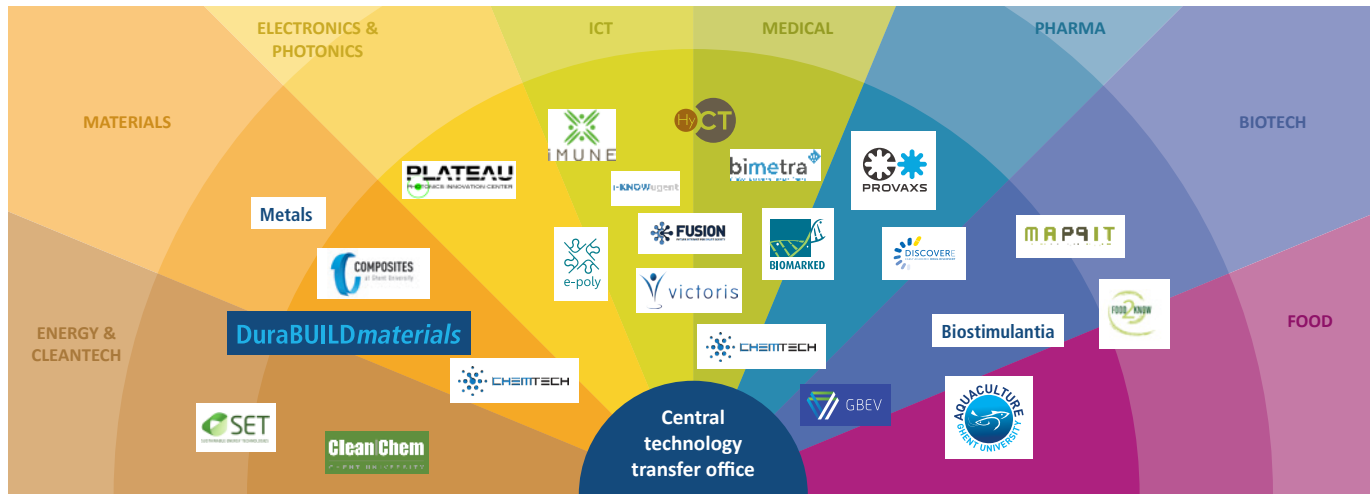
- Industry investments
- Industrial Research Fund (IOF)
- Public research funding (international, national, regional)



# UGent industrial liaison network and the IOF

**Technology transfer** at Ghent University provides a supportive framework for cooperation between industry and academia, and facilitates the commercial application of promising technologies developed within the Ghent University Association. Key technology transfer activities include industrial collaboration programmes, IP licensing and spin-off creation.

For its liaison with industry, UGent uses a network of specialized **IOF Business Development Centres, among which DBm**. These centres are backed by a central Technology Transfer Office.





The **Industrial Research Fund (IOF)**, established by the Flemish government, aims at stimulating innovation by bridging the gap between applied research and industry. At UGent University Association, the IOF strengthens the existing technology transfer activities, by providing **proof-of-concept funding** and establishing UGent **Business Development Centres**. DBm, founded in 2008, operates as the Business Development Centre for the construction sector.






## Contact

Prof. dr. ir. Stijn Matthys

 Ghent University DuraBUILDmaterials  
Technologiepark-Zwijnaarde 904  
9052 Gent, Belgium

 +32 9 264 55 20

 +32 477 65 05 21

 [stijn.matthys@ugent.be](mailto:stijn.matthys@ugent.be)

 [www.dbm.ugent.be](http://www.dbm.ugent.be)



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