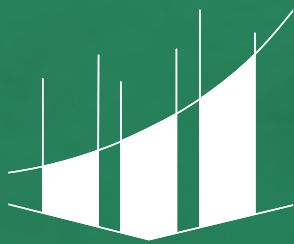


ACTIVITY REPORT

2022



BCCA



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Dear reader,

An independent certification body for the construction sector is more than ever necessary. The construction sector is experiencing significant developments, on the one hand due to the technological evolution and digitalisation, and on the other hand because of the societal needs resulting from - among other things - climate change and the necessary energy transition. BCCA was established in 1992 as an independent, impartial and expert organisation, to monitor and enhance the quality, reliability and performance in the construction sector. It has been fulfilling this role for more than 30 years now, with an increasing emphasis on innovation and sustainable solutions. A team of enthusiastic and expert employees makes it possible for BCCA to fulfil its mission every day.

Thanks to our loyal partners - manufacturers, public authorities, public and private building project managers, contractors, architects, engineers, scientific institutions, laboratories - BCCA has grown to address all challenges. We thank our partners for their trust and cooperation.

You have in your possession BCCA's activity report for the year 2022. This report provides a good overview of BCCA's activities over the past year.

Enjoy the read.

ir. Erik Van Celst
Chairman
Board of Directors



BELGIAN CONSTRUCTION CERTIFICATION ASSOCIATION vzw
BCCA

logo created in 1992



Independently and impartially monitor and validate the improvement of the quality in the construction sector : a permanent balancing act!

BCCA - founded in 1992 centred around management systems has grown into a solid non-profit organisation in its 30-year existence - with a turnover of over 13 million EUR in approval and certification.

Over the past 30 years, a beautiful trajectory has been covered with BUILDWISE and SECO employees, assisted by many external structural engineers, engineers, architects and scientists who, thanks to their diversity in competence, but above all thanks to their unconditional commitment, enthusiasm, drive and perhaps even idealism, strive to fulfil the mission of BCCA: enhancing the quality in construction.

BCCA now faces new societal challenges: in a rapidly changing climate-driven world, exacerbated by the energy crisis, and as a result of the EU's ambitions for climate neutrality, we see a growing need for innovation in various areas such as renewable energy, sustainability and building performance.

The changing climate is forcing us to carry out new conformity assessments - not only as a result of global warming itself, but also for the consequences of climate change such as flooding, both in terms of protection and prevention.

Where the current schemes of BCCA are mainly focused on confirming trust in quality, and even then mainly with a focus on building materials and

their fitness for use, we now receive the request to integrate criteria such as sustainability, and more specifically circularity.

Circular construction requires a different approach in terms of certification, as the classic certification process from natural raw materials to the production of new building materials at a production site cannot be applied to reuse. An immediate solution is to certify the fitness for use for a specific application, but steps are also being taken to certify the entire process from dismantling to storage and transport of circular materials.

The industrialisation of the construction sector and the arrival on the market of modular systems, produced in workshops and assembled and installed on site, requires a strong support to ensure the quality and the trust in the full chain of design, production, installation, maintenance and performance. On top of that now comes a next step: the possibility to disassemble.

Digitalisation is at the core of any business strategy. For instance, BCCA has completely switched to a paperless mode of functioning, and MyBCCA, the customer portal, was implemented, making it possible to offer new digital services, such as the certification of execution processes for concrete repair and sewer rehabilitation, among others. This irreversible digitisation will also require an adjustment from the users.

There is a great demand to make available to the users and building specifiers the data and information available from certification, and especially to convert the information into usable texts. The Quality to Build (Q2B) platform that is being developed, is a great initiative in this regard, in part thanks to the support of the npo BENOR.

Finally, data validation will become indispensable with the digitisation of construction. BCCA is preparing for this in partnership with the UBAtc. Also, remote work due to COVID's travel restrictions has demonstrated that the traditional on-site audit process can partially evolve into complementary digital audits and controls.

The DOP - declaration of performance - is now well established, the performance of buildings is at the top of the agenda. BCCA developed several services in this context, such as quality frameworks for post-insulation of cavity walls, airtightness and ventilation. The need for air purification in public buildings may lead to a new quality framework, but also the strong emergence of renewable energy systems requires a good mastery of these new techniques and possibly a qualitative monitoring of their performance.

BCCA's services can only be developed by maintaining and expanding the relevant skills of BCCA's personnel. Today, BCCA's team consists of 135 experts and employees carrying out and developing approval and conformity assessments - the equivalent of 60 full-time employees, in about 50 sectors. The 2020 satisfaction survey showed that our clients particularly appreciate the excellent expertise of our inspectors and auditors - this motivates us to continue investing in training, expanding our skills and recruiting additional experts in new sectors.

Going forward, BCCA's mission remains to independently and impartially monitor and

validate the improvement of the quality in the construction sector. To this end, the corresponding activities are carried out in close consultation with the competent authorities and interested parties, without exclusion, and respecting the principles of proportionality and equivalence.

BCCA's role is essential as a facilitator, bringing together all interested parties - the initiators, the sectors, the manufacturers, the authorities, the designers, the building specifiers and the users, to elaborate in consensus relevant schemes that provide trust in the quality of products, processes and competences. A permanent balancing act!

Olivier Delbrouck
General Manager



// GLOBAL EVOLUTION
OF THE ACTIVITY

BCCA'S INVOLVEMENT IN THE EVOLUTION OF A CHANGING SECTOR

Since man became sedentary and civilisation progressed, man has been building in an increasingly performant and sophisticated way.

Building is essential for all societal functions such as living, working, gathering, moving around and reflects pride and quality of life.

The construction technology has continued to evolve thanks to man's knowledge and industrial achievements, the latest of which is digitisation.

Building constructions that stand the test of time and reflect a rich heritage has always been an ambition in many cultures and has contributed to the establishment of respected and stable living environments.

BCCA ADAPTS AND GUIDES THE SECTOR IN THE EVOLUTION OF LOCAL AND INTERNATIONAL CONTEXT

The political activity at European and national level strongly influences the priority choices, without necessarily taking into account the reality of the construction sector.

The complex **European** and often theoretical **regulations**, the continuously evolving, sometimes volatile political initiatives and the breakdown of competences between different levels of policy make it difficult to realise concrete and sustainable projects.

Examples include the difficult organisation of the **CE marking** in the construction sector and the Brexit with the stop and go process

for trade agreements. The **Green Deal** and its implementation at the national level provide an important drive on the one hand, but at the same time disregard the technical realities, creating unachievable expectations.

The war situations cause significant material wastage on the one hand and disrupt the optimal use of resources.

BCCA is closely monitoring these developments and guiding the local authorities and sector to get through the difficulties with as little lateral damage as possible.



BCCA'S SERVICES INTEGRATE THE NECESSARY SUSTAINABILITY OF CONSTRUCTIONS

In the process, the human ability to cooperate is severely tested and we have to deal with conflicts of interest, excessive greed for profit and even wars. The effects of global warming create humane crises and an unseen uncertainty and despair and show the weakness of the human society to efficiently organise itself over the long term.

In this context, where the economic rules often cause a race to the bottom, expert, independent and impartial organisations like BCCA represent an essential tool to manage the processes in the construction sector.

Through a mixed range of services, covering safety, proactive risk management, quality assurance, competence assurance and environmental protection, BCCA assists the sector with all its actors and roles for the sustainable design, the realisation and the maintenance of building structures.

The availability of building materials was not a problem here and was limited only by extraction and transport logistics, although masterful arts were displayed in that area.

However, until recently, man did not have to consider the impact of the extraction of materials on nature, the limitation of available energy and the pollution of the environment.

Today, we know that the exploitation of natural resources is finite and that we need to provide a liveable environment for 8 and more billion people, where there is also room for biodiversity.

And that is a huge complex but positive challenge that needs to be addressed collectively and internationally with competent urgency.

BCCA TAKES THE LEAD IN TERMS OF NORMATIVE AND TECHNOLOGICAL EVOLUTIONS

In this respect, BCCA follows the trend of regulation, where it is essential, but at the same time keeps supporting the building actors who are creatively taking responsibility voluntarily.

Contributions to **standardisation, certification** and **technical assessment** remain essential proactive relief mechanisms, but other complementary tools such as **digital monitoring, verification** and **validation of data** and information diffusion and training are gradually emerging.

Traditional mechanisms such as auditing, inspection, testing and calculation monitoring remain the basis for the neutral determination of neutral data, supporting digital modelling.

The need for a multidisciplinary approach, enabling appropriate solutions for any problem set, requires a continuous improvement and expansion of competences.

This situation offers a fascinating and whirlwind environment to motivated employees in which they can permanently develop.

It is essential that BCCA continues to develop its service package in consultation with the market, the authorities and economic operators and knowledge centres so that it is always up to date.



BASIC PRINCIPLES REAFFIRMED IN LIGHT OF THE CURRENT CHALLENGES

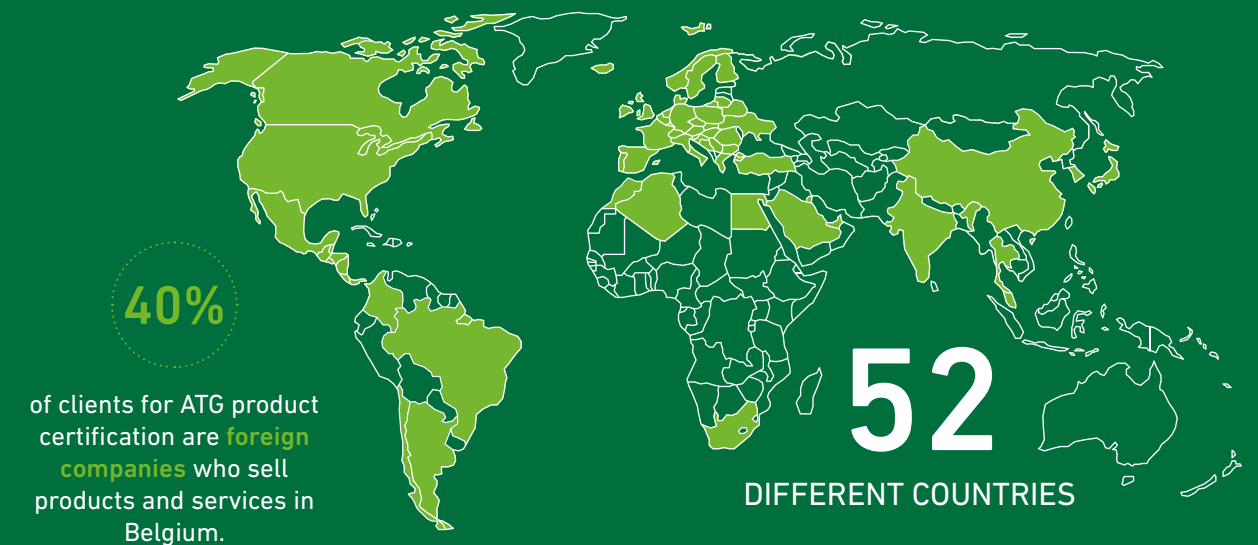
The main drive behind BCCA's **professional ethics** is the respect for **sustainable development** and **human values**. This leads to the pursuit of optimising the construction systems, promoting circularity and maintaining the technical consistency.

Miracles are not possible and fake solutions should be avoided, but a lot can be achieved through respectful and ethical behaviour, and BCCA wants to cooperate fully in this.





A WORLDWIDE PRESENCE IN THE FIELD



Since its foundation, BCCA has become an increasingly important **international player**. This success is based on the combination of different complementary elements.

The most important of these is the **high level of Belgian BENOR and ATG certifications**, which is due to the heavy demands that Belgian public and private users impose on the products and services that are implemented on their market. Prescriptibility in the specifications makes it necessary to establish a clear and risk-based reference framework, based on consensus. As a result, certification is strongly supported socially. A priori it is proportional and applied very systematically.

Foreign producers who wish their products to be marketed in Belgium require ATG or the BENOR mark in many cases. This trend has continued and was reinforced following the introduction of the **CE certification**. The legal compatibility between the application of the Construction Products Regulation (CPR) and voluntary certification has been closely studied.

This has earned BCCA an international reputation and the value of Belgian certificates is recognised worldwide.

In a turbulent international context, BCCA has expanded its activities in 2022, bringing the number of **countries involved in its certification activities** to **52**.

MEMBER OF THE NATIONAL AND INTERNATIONAL NETWORK FOR CERTIFICATION

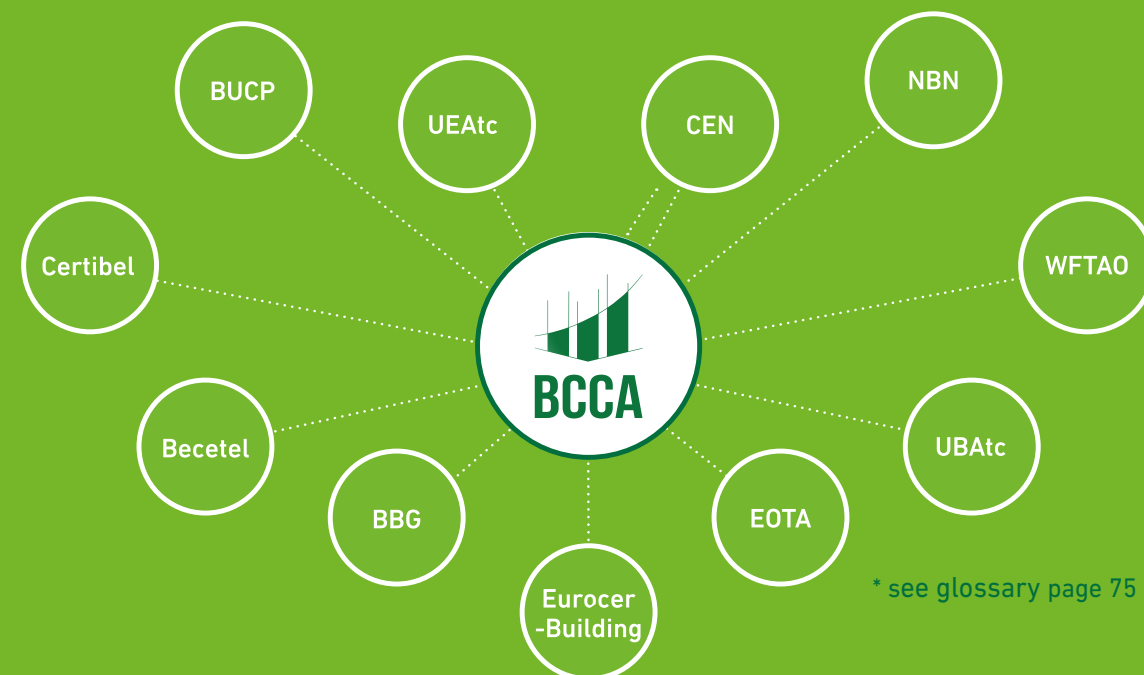
BCCA maintains and reinforces its strong involvement in **international consultations** on **certification** and **approval**.

BCCA has been a member of **Eurocer Building** (the association of European certification bodies active in the construction sector) since 1998. Through UBAtc, BCCA participates in the functioning of **UEAtc** (the Association of Accreditation Bodies in Europe), **EOTA** (European Organisation for Technical Assessment in construction products) and **WFTAQ** (World Federation of Technical Assessment Organisations). In addition, BCCA monitors **EA** (European Accreditation) activities on behalf of Eurocer Building.

BCCA has always been very active in exchanging technical approvals and certifications with sister institutions. This strengthens our position alongside major international groups and makes BCCA eligible for international certification contracts accepted in Europe and beyond.

Some leading Belgian industries operating worldwide, such as the steel fibre sector or the glass sector, have contributed to the international development of BCCA's activities.

BCCA was also the first certification body for the **KEYMARK** and now takes care of TIAQ (Thermal Insulation Association for Quality). The icing on the cake was BCCA's appointment as the global certification body for the **EUCEB** mark.



As notified body for the Construction Products Regulation (CPR), BCCA is also a leader, both in serving major industrial players as participating in sector consultation systems. BCCA is just as rigorous in exercising such activities as it is in managing voluntary certification in the Belgian environment.

This international success is down to the **service-minded approach**, **technical competence**, absolute **neutrality** and **language proficiency** within our team.

An abstract geometric composition featuring several white rectangular blocks of varying sizes and orientations, stacked and arranged on a dark grey, textured surface. A large, solid green rectangular block is positioned in the foreground, partially overlapping the white blocks. The lighting creates soft shadows, emphasizing the three-dimensional nature of the objects.

//OUR ACTIVITIES

TYPES OF SERVICES AND AREAS OF COMPETENCE

Currently, about twenty sectors call on BCCA's usual services, including the ATG certification, the BENOR certification, the CE marking and the certification of management systems, to name only the most well-known services. In order to meet the current demands of the sectors, BCCA is working on **integrating circularity and sustainability aspects into the content of the product certification**, among other things, and has added the

certification according to the **CO₂ performance ladder** to its services in 2022.

As can be observed, the combination of the certification sectors and certification systems at BCCA is constantly evolving to meet the needs and expectations of the wider construction sector.

	BENOR	ATG	ETA	CE-Marking	KEYMARK	EUCEB	People	Processes, services, QC	Quality frameworks	Management systems
CONSTRUCTION SYSTEMS AND STRUCTURAL WORK										
CERAMIC PRODUCTS										
FIBRE PRODUCTS										
NATURAL STONE AND SLATE										
ROOFING										
INSULATION AND FINISHINGS										
WINDOWS										
JOINERY										
FACADE SYSTEMS										
EXTERNAL INSULATION SYSTEMS										
PIPE SYSTEMS										
EQUIPMENT										
PASSIVE FIRE PROTECTION										
VENTILATION AND AIR TIGHTNESS										
RENEWABLE ENERGY										
BUILDING PERFORMANCE										
CONCRETE REPAIR										
SANITATION WORKS										
COVERINGS										
BUILDING CHEMISTRY AND RESTORATION										
WOOD CONSERVATION										
INNOVATIVE PRODUCTS										
ISO 9001										
ISO 14001										
VCA AND ISO 45001										
CO2 PERFORMANCE LADDER										
ASBESTOS REMOVAL										
SOIL REMEDIATION										

SERVICES THAT MEET THE CERTIFICATION NEEDS OF THE SECTOR'S ACTORS

BCCA is a multidisciplinary certification body that is active in the construction sector and particularly involved in the certification of construction products and systems. Public authorities as well as suppliers of products and services, private users and experts turn to BCCA to be reassured about the **quality** and the **fitness for use of the products** and, consequently, about the **risk management** of the built structures.

PRODUCT CERTIFICATION

The **PRODUCT CERTIFICATION SERVICES** are provided in the form of various quality labels and marks, mainly on a voluntary basis, with the exception of the CE marking, which is mandatory.

the Belgian construction sector to **inspire confidence in the use of innovative, unique and complex products and systems**, both for public and private works.

The most common product certifications are:



The **ATG with certification** is a favourable opinion with regard to the fitness for use of construction products

and systems, including a monitoring of their production, their use and the possible qualification of users (persons and companies). The validity of the ATG is continuously being monitored and this monitoring takes into account the evolution of the knowledge and the experience to allow the ATG to evolve if necessary. The ATG provides a real and recognised support for the benefit of the responsibility of actors of the construction sector.

It is a voluntary local certification; the ATG applications are based on specific local needs. For the past 50 years, the technical approvals have been the most important system in

What the **ATG** certification represents for

THE CONTRACTING AUTHORITY:

- ✓ Assurance of the fitness for use of the construction products and systems concerned
- ✓ Quality control of the manufacturer

THE MANUFACTURER:

- ✓ Proof that the construction product or system is in compliance with the implementation rules and that it is suitable for use in a specific field of application. Particularly interesting to give confidence to the market in the framework of innovative and complex products/systems.

THE ARCHITECT / THE DESIGNER:

- ✓ The ATG allows the designer and architect to easily check whether a product is suitable for a particular use.
- ✓ This allows them to focus their attention on their assignment and on the quality of the construction work.

THE CONTRACTOR:

- ✓ The installation or processing instructions are described in the ATG
- ✓ Less discussion possible on the correct use and the suitability for use



The **BENOR** mark: It is intended to certify the conformity of a product, process or service with a standard or normative document in the Belgian context.

It is a voluntary local mark that was created by consensus among stakeholders and that meets the user's need for assurance on aspects related to **quality, safety, fitness for use, health and consumer protection in general**. The BENOR mark is mainly used by private or public specifiers.

What the **BENOR** certification represents for

THE CONTRACTING AUTHORITY:

- ✓ Guarantee of the existence of an internal quality control at the manufacturer

THE MANUFACTURER:

- ✓ The proof that he complies with the implementation rules, the rules of BENOR npo and the Belgian standards (NBN)

THE ARCHITECT / THE DESIGNER:

- ✓ The BENOR mark guarantees the designer and the architect that the product has been manufactured in accordance with the Belgian standards, the Implementation Rules and the rules of BENOR npo. This allows them to concentrate on their assignment and on the quality of the construction work

THE CONTRACTOR:

- ✓ The on-site reception checks are facilitated. After all, the contractor can submit the necessary evidence (certificates/technical sheets/delivery documents) to the client or his representative.



The **KEYMARK** certification: is a voluntary conformity mark with a European standard (EN) that is mainly active in the insulation sector.

The KEYMARK certificate contains information about the production site, the certificate holder and the certification body. This information ensures that the **product or service can be identified and traced**. The certificate is valid for five years and can be renewed upon request. As a basis for the certification, the manufacturer must have set up a production control at the factory. This production control is monitored on an annual basis and is completed by a product test carried out at least every two years.

What the **KEYMARK** certification represents for:

THE CONTRACTING AUTHORITY:

- ✓ The guarantee of the existence of an internal quality control at the manufacturer and the regular monitoring of the products concerned as well as their traceability

THE MANUFACTURER:

- ✓ The proof that he complies with the European reference standard and that he satisfies the controls provided by the system

THE ARCHITECT / THE DESIGNER:

- ✓ The KEYMARK mark provides the designer and the architect with the assurance that the insulation product has been manufactured according to the applicable European standard and that it is traceable. This allows them to concentrate on their assignment and on the quality of the construction work

THE CONTRACTOR:

- ✓ The identification and the traceability of the product are ensured; the compliance of the products with the requirements of the specifications can thus easily be checked.



The **CE certification** and the **European Technical Assessment (ETA)**:

The **CE marking** according to the CPR (European Construction Products Regulation 305/2011) is intended to ensure the free movement of construction products within the European internal market, where this is **mandatory**.

The **ETA** application is a **voluntary** procedure required to draw up a declaration of performance and to affix the CE marking to a product that is not or not fully covered by a harmonised European standard. BCCA is notified for most of the fields that concern the buildings and is the operator of the UBAtc for the ETA.



The **EUCEB certification** is intended to certify that the manufactured mineral wool fibres have a chemical composition such that the classification as carcinogenic does not apply.

EUCEB was founded in 2000 to **enhance the trust of the authorities, clients and consumers in mineral wool** by providing information on its non-classification in the European Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures within the framework of the protection of human health and the environment.

The EUCEB certificate is a voluntary declaration stating that the mineral wool fibres have a chemical composition that is included in the series of risk-free reference fibres tested according to European protocols and in accordance with the stipulations of Note Q of Regulation (EC) No 1272/2008.

The EUCEB certificate holders **may affix the EUCEB mark** to products consisting of mineral fibres that meet the requirements of the certificate.

As from January 2017, BCCA acts as the certification body for EUCEB, the European Certification Board for Mineral Wool Products.

What the **EUCEB** certification represents for

THE CONTRACTING AUTHORITY:

- ✓ The guarantee that the mineral fibre-based insulation products are regularly checked and that there are no risks to human health and the environment

THE MANUFACTURER:

- ✓ The proof of compliance with the checks provided by the system in accordance with the above stipulations

THE ARCHITECT / THE DESIGNER:

- ✓ The EUCEB mark gives the designer and the architect the assurance that the mineral fibre insulation product they prescribe is free of risks to human health and the environment. This allows them to concentrate on their assignment and on the quality of the construction work

THE CONTRACTOR:

- ✓ The classification as non-carcinogenic of the mineral fibre insulation product is ensured; he can work safely and the compliance with the requirements of the specifications can be easily verified

These different **product certifications are long-term certifications**. In fact, the validity period of a certification generally extends over a period of **three to five years**, with intermediate audits being carried out annually in most cases. These checks take place in the factory, on the building site or in the form of digital data checks.

While **ATG and BENOR certifications are local certifications** that meet the needs or requirements of the Belgian construction sector; CE, ETA, KEYMARK and EUCEB certifications meet the needs/requirements at European or international level.

The time required to obtain these different certifications varies according to the complexity of the applications, the products/systems concerned and the type of certification scheme, which may be more or less complex and detailed.

In addition to these certification activities, BCCA also handles more specific requests from an individual applicant rather than from a sector or public authority, which may take the form of an attestation or a batch inspection.

- **The attestation** is the result of a specific request from a specific client that can concern any of BCCA's existing areas of expertise (see overview table).
- **The batch inspections** are used to validate whether the degree of reliability between the characteristics of the product of an (unambiguously) identified batch and a receipt document is sufficient, and whether the observed characteristics correspond to what is provided in the receipt document. A batch inspection of products may result in a written declaration from BCCA that there is sufficient confidence that the batch in question is in conformity with the receipt document.

Legend of tables

X	Always applicable
(X)	Not always or not fully applicable
X*	Strictly speaking, this does not involve certification
Minimum delay	This is the minimum time required to process a completely new application. The given time frame is under the assumption that all necessary information is easily available. This includes, for example: - Tests that can be carried out quickly - Audits that can be easily scheduled - An examination moment that is available soon - ...

OVERVIEW PRODUCT CERTIFICATION

		BENOR	ATG Certification	Attestation	Batch receipt	European Technical Assessment (ETA)	CE Marking			KEYMARK	EUCEB
							AVCP 1+	AVCP 1	AVCP 2+		
Type of BCCA activity	Certification	X	X				X*	X*	X*	X	X
	Attestation/ Agreement		X	X	X	X					
Target	Organisation	X	X	(X)	(X)	X	X	X	X	X	
	Quality	X	X	(X)	X					X	
	Environment			(X)							
	Safety			(X)							
	Energy		(X)	(X)							
	Health			(X)							X
	Sustainability		(X)	(X)							
	Legislation/ Government Policy			(X)		X	X	X	X		X
	Facilitate innovation		X	(X)		X					
	Assess equivalence			(X)	X						
Single mission				(X)	X	X					
Continuous assessment	Management type testing	X	X	(X)			X	X		X	
	Check Fitness for use	(X)	X	(X)							
	Audits/ Inspections of production sites	X	X	(X)			X	X	X	X	
	On-site Audits/ Inspections	(X)	(X)	(X)							
	Digital Controls			(X)							X
	Verification of calculations	(X)	(X)	(X)							
	Sampling	X	X	(X)			X			X	X
Depending on the needs/ questions of local actors		X	X		X						
Depending on European or international needs/questions						X	X	X	X	X	X
Minimum delay											
For a very new request	[in month]	>6	>9	/	>1	>12	>6	>6	>3	>6	>3

CERTIFICATION OF PROCESSES AND SERVICES

In addition to product certification, BCCA also offers the certification of processes and services.

THE PROCESSES being certified are

EXECUTION CERTIFICATION

for concrete repairs and for sewer rehabilitation. In this case, both the organisation and the quality of work are validated through random on-site inspections carried out thanks to the information entered by the companies concerned on the **MyBCCA** portal.



SUSTAINABILITY CERTIFICATION

such as the “**Menuiserie Durable**” certification is a scheme that combines product certification with the validation of corporate social responsibility (CSR) criteria included in the form of a charter that is signed by the clients who subscribe to it.



QUALITY FRAMEWORKS

- including:
- quality framework for **airtightness** in which BCCA intervenes to check the reliability of airtightness measurements
 - quality framework for **ventilation** for which

BCCA can demonstrate that efficient checks are being carried out and that the reports are correct. BCCA also works on the continuous improvement of the competence of the reporters through specific communications or webinars.

- quality framework for the **post-insulation of cavity walls**. In this case, the three parties involved are certified separately: the raw material suppliers, the ATG holders (insulation material manufacturers) and the users (contractors). The role of BCCA is to verify the conformity of the following elements: that the insulation systems used carry a Technical Approval and that the post-insulation work is carried out by qualified personnel in accordance with the requirements of Technical Specifications STS 71-1.

Specifically within this quality framework, BCCA organises initial and continuous training courses for qualified personnel on the assessment of the suitability of cavity walls for the post-insulation technique.



As for **SERVICES**, BCCA is, for example, involved in the certification of thermal values such as U-values. In that case, one can either validate the calculation process or validate the results of the calculations based on a random check and a risk analysis, or carry out the calculations themselves. BCCA regularly organises courses for the calculation of U-values in 2 or 3D.

Outside the scope of certification, **attestations can also be issued for processes and services**, for example for the validation of test results or calculations in a broad sense.

OVERVIEW CERTIFICATION OF PROCESSES & SERVICES

		Processes			Services			Attestation
		Execution certification	Quality Frameworks	Sustainability certification	Thermal calculations			
					(U-Values)			
					Calculation process	Attestation of calculations	Validation of results	
Type of BCCA activity	Certification	X		X	X			
	Attestation					X		X
	Validation			X			X	
	Acknowledgement		X					
	Declaration of validity				X			
Target	Organisation	X	X	X	X			X
	Quality	X	(X)	X	X	X	X	X
	Environment		(X)					
	Safety		(X)					
	Energy		(X)					X
	Health		(X)					
	Sustainability		(X)	X				
	Legislation/ Government Policy		(X)					
Single mission						X	X	(X)
Continuous assessment	Management type testing	(X)		X	X			X
	Check Fitness for use							X
	Audits/ Inspections of production sites	X	(X)	X				(X)
	On-site Audits/ Inspections	(X)	(X)					(X)
	Digital Controls	(X)	X		X			X
	Verification of calculations			(X)	X			X
	Sampling		(X)					
Depending on the needs/ questions of local actors		X	X	X	X	X	X	
Depending on European or international needs/questions						X	X	
Examination	Theoretical	(X)	X		X			
	Exercise	(X)			X			
Minimum delay								
For a very new request	[in month]	>3	0,5	>2	>2	>1	>1	>1

CERTIFICATION OF PERSONS



THE CERTIFICATION OF PERSONS that allows for the recognition of the knowledge and skills of persons, is being developed and meets the needs in very diverse fields.

- ✓ The certification of persons in combination with product certifications provides additional assurance, as is the case with the **ATG certification** of insulation products/systems. In that case, in addition to the ATG with certification for the system itself and for the raw materials used, the **installers recognised by the ATG holder** for implementing the insulation system, are also certified by BCCA. **The performances mentioned in the ATG are only applicable when the execution was done by certified installers.**
- ✓ The certification of persons, such as **painters** and **plastics welders**, also allows public authorities to qualify and select companies in a neutral manner.
- ✓ As a partner of the association **RESCert**, a certification scheme set up by the country's three regions for **small renewable energy installations**, BCCA verifies that the persons meet the conditions of the certificate and publishes them on its website to give them visibility.
- ✓ Certification of persons for building inspectors carrying out **condition measurements** according to the Dutch standard NEN 2767, in association with **Vlisog** npo, which promotes systematic maintenance of buildings



OVERVIEW CERTIFICATION OF PERSONS

		Certification of persons	VLISOG	RESCert
Type of BCCA activity	Certification	X	X	X
	Declaration of validity	X	X	
Target	Organisation	(X)		
	Quality	X	X	
	Sustainability		X	
	Legislation/Government Policy			X
Single mission				X
Continuous assessment	Audits/Inspections of production sites	(X)	X	
	On-site Audits/Inspections	(X)	X	
	Digital Controls		X	
	Sampling	(X)		
Depending on the needs/questions of local actors		X	X	X
Depending on European or international needs/questions				
Examination	Theoretical	X	X	X
	Exercise	X	X	X
Periodic training / reassessment		X	X	X
Minimum delay	[in month]	>2	>1	>1
For a very new request				

CERTIFICATION OF MANAGEMENT SYSTEMS



THE CERTIFICATION OF MANAGEMENT SYSTEMS completes BCCA's current offer of services.

The certification of **ISO 9001:2015** management systems for companies that are active in the construction sector and in related sectors is one of BCCA's first certification activities since its establishment.

Ever since, the range of certifications of management systems has greatly expanded, always to meet the needs of the sector, with both international and more local certifications.

It is no surprise that in response to one of the construction sector's biggest concerns - the improvement of the safety in the workplace - BCCA has added the **VCA:2017/6.0** certification, the **ISO 45001:2018** certification and the certification of **asbestos removal** to its services.

Another important and trending subject in which BCCA continues to invest: the environmental certification through **ISO 14001:2015**, **Achilles Zorgsysteem** (certification of companies that are active in soil decontamination in the Flemish Region) and more recently, the certification according to the **CO₂ Performance Ladder**.

The last certification is in line with the carbon neutrality goals that many companies are now setting themselves to align with the requirements of the European Green Taxonomy initiated within the framework of the European Green Deal.



OVERVIEW CERTIFICATION OF MANAGEMENT SYSTEMS

		ISO 9001	ISO 14001	ISO 45001	VCA (occupational health and safety management)	Achilles-Zorgsysteem (OVAM)	Asbestos removal (AR 28/03/2007)	CO ₂ Performance Ladder
Type of BCCA activity	Certification	X	X	X	X	X	X	X
Target	Organisation	X	X	X		X	X	X
	Quality	X						
	Environment		X			X		X
	Safety			X	X		X	
	Health				X		X	
	Sustainability							X
	Legislation/ Government Policy					X	X	(X)
Continuous assessment	Audits/ Inspections of production sites	X	X	X	X	X	X	X
	On-site Audits/ Inspections	(X)	(X)	X	X	X	X	(X)
Depending on the needs/ questions of local actors					X	X	X	X
Depending on European or international needs/questions		X	X	X				(X)
Examination	Theoretical				X			
	Exercise							
Minimum delay	For a very new request	>3	>3	>3	>3	>3	>3	>3



TRENDS AND EVOLUTION OF CERTIFICATION IN THE KEY SECTORS

The number, the nature and the scale of the challenges the construction sector is facing and the speed with which it is expected to react to them, is quite unprecedented. The sector is confronted with the objectives of the European Green Deal and with an unexpected energy crisis that requires adjustments, thorough revisions or the acceleration of developments that are already in progress. Together, these evolutions must provide answers to the technical, technological, energy, environmental and communication challenges.

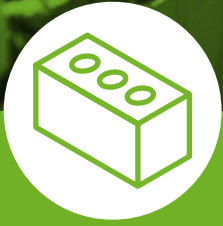
Irrespective of the sector involved, BCCA's teams work hand-in-hand with the various stakeholders to support and assist these evolutions in the best possible way. No lack of challenges!

CONTINUITY AND REINFORCEMENT OF TRENDS



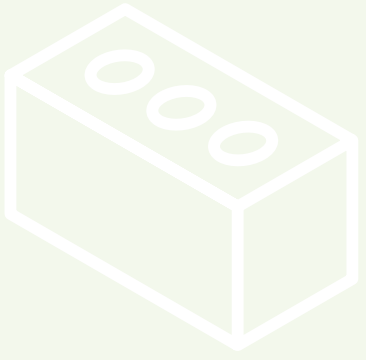
SECTORS

//OUR ACTIVITIES



SECTOR OF THE CERAMIC PRODUCTS

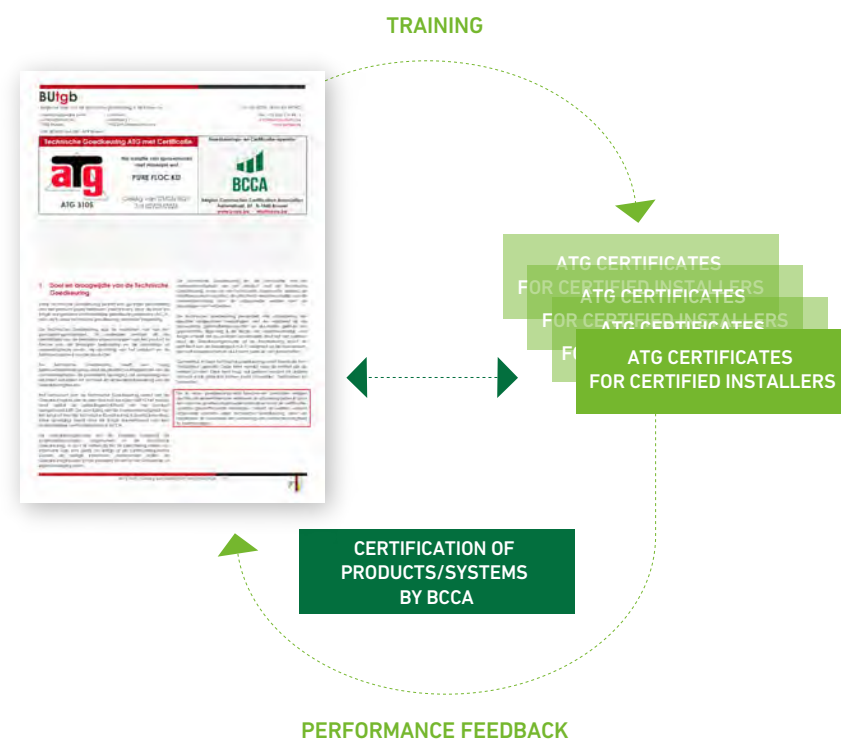
In the sector of the ceramic products, the main priority remains the optimisation of the production methods for both greater **energy savings** and a more rational use of the raw materials by integrating the **circular economy** wherever possible.





In the ETICS sector (**EXTERNAL THERMAL INSULATION COMPOSITE SYSTEM**), there has been a constant evolution of the different types of cladding, both in size and nature (bricks or other hard cladding). Besides the quality of the components of the system, an important aspect for the sustainability and the durability of an ETICS is the installation

of the system according to the best practices. The performances specified in the technical approval can only be attained if the work is carried out in accordance with the ATG holder's installation instructions by a **contractor trained by the ATG holder**.



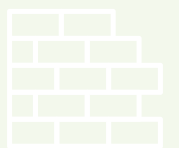
In 2022, the new techniques for building masonry walls have evolved significantly.

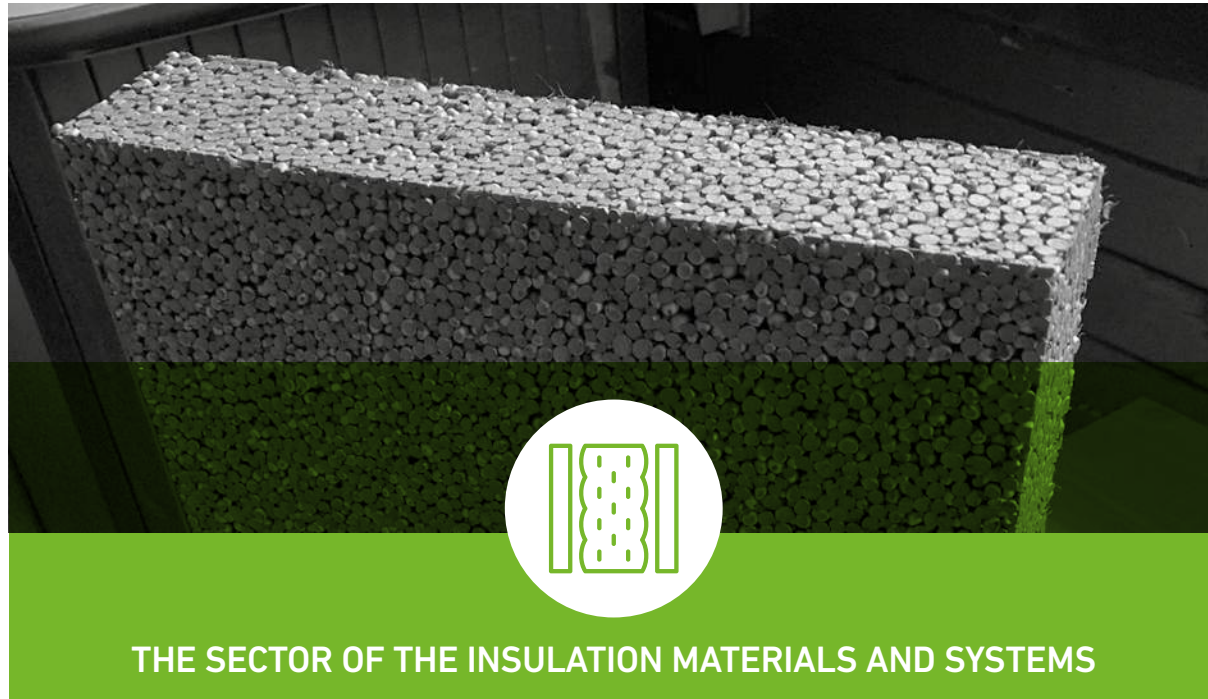
In fact, (non-)load-bearing internal walls made of clay, calcium silicate or autoclaved aerated concrete masonry units have nowadays thin layer joints composed of a performance enhanced masonry mortar known as "thin layer masonry mortar", which is more and more often replaced by a polyurethane adhesive. This trend is also reflected in masonry with aggregate concrete masonry units, but it is not yet widespread. For façades, general purpose masonry mortars (=traditional mortar) or thin layer masonry mortars are still popular with users for aesthetic reasons.

The past year was mainly characterised by innovations in the bricks themselves, with a pronounced interest from building specifiers and users in **products with a sustainable and circular character**. Projects include the development of bricks from recycled concrete or glass aggregates (see the project for the new wing of the DING museum in Ghent), the use of aggregates of natural origin, the

(re)discovery of unfired clay masonry units and the research into alternatives for cement as binder or into reducing the energy consumption of the production processes. These elements are the result of the European carbon neutrality targets and the energy crises that have occurred throughout the year.

The **circularity** for masonry translates not only in its components, but also in **its design**, with the introduction of stacked systems, without mortar or glue, and its demolition, with the reuse of bricks from existing buildings. To facilitate the dismantling and recovery of bricks in the future, an old tradition could become popular again: the use of a mechanically weaker lime-based mortar that can be more easily removed from the bricks so that they can be reused.





IN SITU PU INSULATION SYSTEMS

The quality assurance system in situ sprayed PU insulation system faced many challenges in 2022.

Because of a European Regulation (EC) No 842/2006, certain blowing agents (HFCs with a GWP of 150 or more) for in situ PU insulation systems can no longer be used from 1/1/2023. For this reason, BCCA has updated the approval guideline and the implementation rules for obtaining an ATG so as to be able to assess **in situ PU floor systems** with new blowing agents (HFO).

The first ATGs with certification for in situ sprayed PU floor systems with an HFO blowing agent were delivered, as well as the first BCCA raw material certificates for the raw materials used for these insulation systems. The first installers recognised by the ATG holder to implement the in situ sprayed PU floor insulation system were certified by BCCA.



The **performances** mentioned in the ATGs with certification for in situ sprayed PU floor systems are only valid when the implementation is done by certified installers and are **valid for the in situ sprayed PU floor insulation system as applied on site**. This approach ensures that one can fully trust the performance described in the ATG.

The insulation sector has kept calling on BCCA for **CERTIFICATIONS WITH AN INTERNATIONAL SCOPE**.

In addition to applications for the CE marking, the number of applications for the **European voluntary quality label CEN KEYMARK** for the certification of insulation products (excluding their use) continued to rise.

In 2022, there were about 120 factory-made insulation products under **CEN KEYMARK** certification at BCCA.

There was also an interest in the CEN KEYMARK quality label from the sector of in situ sprayed PU insulation systems in 2022.

In 2022, BCCA issued its first CEN KEYMARK certificates as empowered certification body for EN 14315-1 "Thermal insulating products for buildings - In-situ formed sprayed rigid polyurethane (PU) and polyisocyanurate (PIR) foam products". It covers both open- and closed-cell foams and all variations in between.

The **EUCEB** certification for the recognition of the non-carcinogenic nature of the mineral fibres in mineral wool insulation products, on the other hand, experienced a complicated year in 2022. Because of the conflict between Russia and Ukraine and the subsequent EU sanctions, BCCA had to suspend 12 certificate holders. This was partly compensated by the exceptional growth with 8 new certificate holders. EUCEB is expected to continue expanding at a rate of 4-5% per year. To this day, there are 103 EUCEB certificate holders who are active in 37 countries worldwide.





THE FACADES SECTOR

In the facades sector, on the one hand, progress was made in 2022 in the facades systems themselves, more precisely in the measurement of the impact of the mechanical fixings on the thermal insulation level of facades insulated from the outside; and, on the other hand, progress was made in the «Menuiserie Durable» certification.

THE FACADE SYSTEMS

As a result of the evolution towards thicker insulation packages for facades as a result of the maximum U-value requirement of $0.24 \text{ W}/(\text{m}^2\cdot\text{K})$, external insulation systems for facades are being chosen more and more frequently. Such systems include mechanical fixings for anchoring the cladding to the supporting structure. These anchorages have a significant impact on the **thermal performances of the facade**.

Detailed 3D calculations show that the anchoring of the cladding to the underlying supporting structure greatly weakens the thermal performances of the insulation package when taken into account.

Although rules require these fixings to be taken into account when calculating the U-value, in practice the impact is often neglected.

However, given the impact on thermal performances, it is crucial to correctly assess these anchorages on a project-by-project basis. Furthermore, the accurate calculation will also act as an incentive to attain better systems and a better implementation of these systems, and thus **better thermal performances of the buildings**.

In 2015, BCCA formed the working group U-value calculation 'External insulation of facades (thermal performances of mechanical fixings of facades)' at the request of some stakeholders. The objectives of this working group are:

- Providing practical support to the sector for correctly calculating thermal performances of systems for the external insulation of facades

- Developing of a certification scheme for calculators (manufacturers, distributors, research bureaus, EPB reporters, etc.) of thermal performances of systems for the external insulation of facades
- Investigating a feasible method for calculating U-values in accordance with the rules

In consultation with the sector, BCCA made a major contribution to the fine-tuning of a **simplified calculation methodology for mechanical fixings of exterior insulation systems of facades**, which was included in the Transmission Reference Document for Flanders for planning applications as from 1 January 2023 (<https://www.vlaanderen.be/epb-pedia/gebouw/scheidingsconstructies>).

This methodology is intended to alert designers to the impact of mechanical anchoring on the thermal performances of the wall.

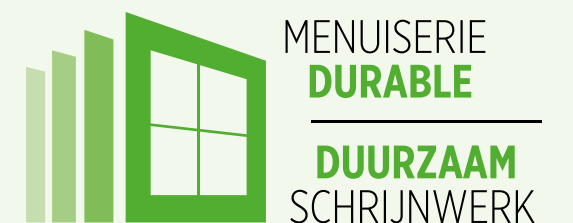
The inclusion of the simplified calculation methodology in the rules will encourage manufacturers and designers to use more detailed calculations for specific solutions and innovations that will **improve the thermal performances of the mechanical anchorages**.

EXTERNAL JOINERY

The aim is to also make this product certificate publicly prescribable. This will further increase the credibility and relevance of the certificate. This will allow BCCA to enhance its role in supporting the sector as a whole to become even more sustainable.

To achieve this, the rules will be further fine-tuned and the bar will slowly be raised. To create the necessary support for this, various stakeholders have been contacted again in 2022 and further consultations will be organised. 'Menuiserie Durable' will evolve into a system with points. This system will be based on an analysis of what is already being done within the sector today (benchmarking). This will further valorise the sector's efforts and also allow joiners to differentiate themselves even further.

At the request of stakeholders, the installation of external joinery will also be included in the product certificate in the future.





In 2022, the developments initiated in previous years were continued unabated. These developments mainly concern the Technical approvals ATG and focus on two topics:

1. The integration of the performances in terms of **resistance to an external fire of flat roof systems** in the Technical approvals ATG. This allows the end user (the building specifier, the research bureau, the final client, etc.) to check whether the prescribed or proposed flat roof systems, which include not only the waterproofing membranes but also all the other components that make up a roof (waterproof layer, insulation, support, etc.), meet the requirements of the applicable "fire" legislation in Belgium;

2. The revision of the **wind resistance performances of flat roof waterproofing systems**. The efforts are being continued and the assessment of the research into the integration of airtight or air-permeable roofs is still in progress since 2022. Moreover, the publication of the new standard EN 17686 confirms the approach recommended in the technical approvals ATG of this field of application.

2022 was also an important year for the sector of the roofs with Buildwise publishing the new Technical Information TV 280 'The flat roof', which is a revision of the outdated TV 215.

In 2023, the first ATG Approval Guideline for waterproofing membranes using bituminous binders (and subsequently for synthetic membranes) will be published, summarising the contributions of all these new developments and documents. This document will be a complete document for the applicants for Technical Approvals ATG containing the methodology for the technical assessment of waterproofing systems for flat roofs in order to obtain their approval.

But we are looking beyond 2023, and many new and exciting challenges will gradually emerge in the sector of the roofs in the coming years, such as:

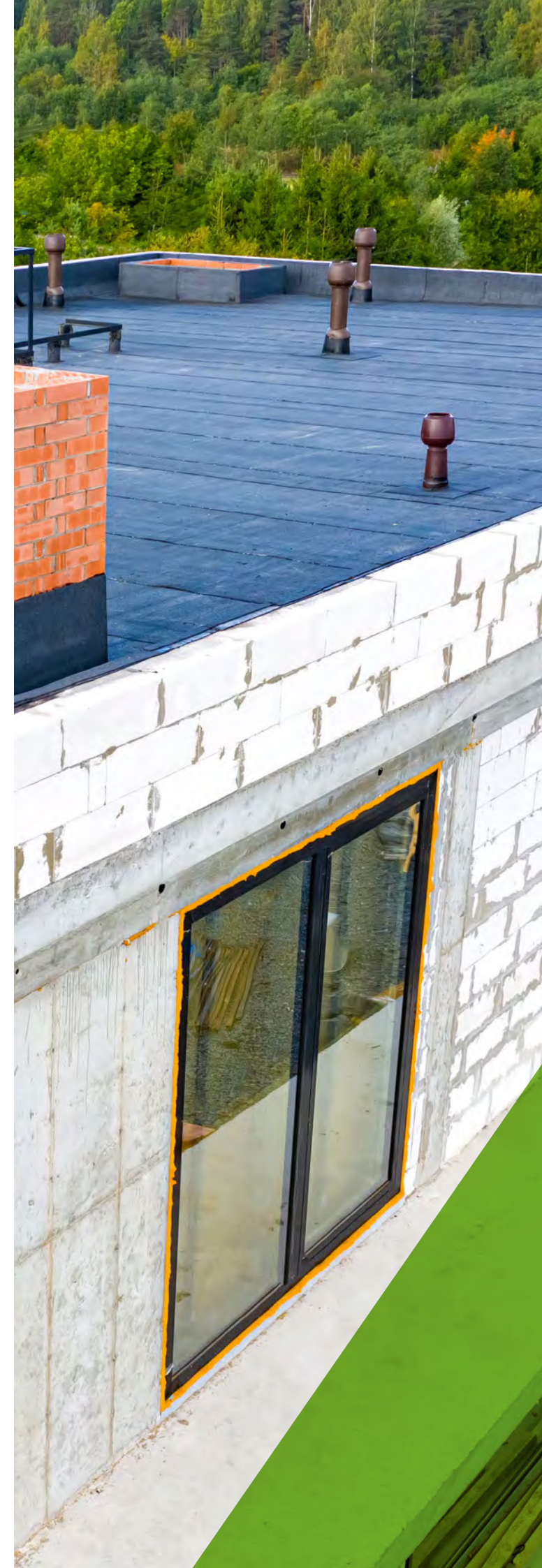
- The use of liquid waterproofing systems (known as LARWKs or "Liquid Applied Roof Waterproofing Kits") in warm roof systems within the framework of the Technical approval ATG, with the possibility of certifying the training of persons implementing the system;

- The development of Technical Approvals ATG for the use of membranes in roof terrace systems;
- The integration into Technical approvals of properties related to the **circularity of products** (use of recycled raw materials, reuse of products, etc.), **of installations** (possibility to deconstruct roof waterproofing materials, modular construction, etc.), ...

The CE marking is also an important part of the activities of the sector "Roofs" within BCCA, specifically through the development of the European Technical Assessment (ETA) for which BCCA is recognised as an Assessment Operator with EOTA.

BCCA is also notified as a certification body for many harmonised European standards that are relevant to the sector of the roofs, for the Assessment and Verification of Constancy of Performance (AVCP) of level 1 or 2+.

Finally, since the Brexit, BCCA has been working with the British Board of Agreement (BBA) within the framework of the **CE marking** and the certification with regard to the **UKCA Marking**, particularly for products in the sector of the "roofs".





THE SECTOR OF CONCRETE REPAIR

The portal MyBCCA was finalised in 2022 and was officially launched during the Concrete Day on 13 October 2022. Since January 2023, the portal is open to all contractors working with BCCA within the framework of the scheme of Process Certification of Concrete Repair.

It was agreed with the sector that we would regard 2023 as a transition year between the old and the new system of notification of building sites by the contractors.

Until 2022, our inspectors were required to contact contractors at regular intervals to ask whether they had a building site with concrete repairs in progress somewhere in the country. As from 2023, every contractor in the possession of a Process Certificate is expected to use the MyBCCA portal.

The main change is in the fact that contractors are now expected to register on the portal every building site where concrete repairs will be addressed, no matter how large or small. Moreover, the Qualified Workers (these are workers who have provided proof of their knowledge through a theoretical and a practical test) have to log on and off daily on the portal (through a system of check-in and check-out).

MY BCCA



This way, our inspectors have an up-to-date list of building sites where concrete repairs are in progress at all times, allowing them to schedule their tasks even more efficiently and to ensure that every responsible contractor can be checked for his knowledge of the necessary on-site processes within a reasonable period of time.

Besides having an overview of the presence on site, our inspectors also have other important information, such as which lot will be worked on that day, which phase of the concrete repair will be started that day and which products will be used. Through the check-in, the name of the Qualified Worker is also known. Furthermore, the contractors are expected to upload a number of basic documents (at regular intervals) into the system, such as a diagnosis report, a building specification text, daily and lot reports, pictures, results of bond strength tests (both internal and external), aftercare measures, ...

Obviously, the contractors should be accompanied in all this. Hence, it is our intention to provide them with ongoing **advice and assistance** throughout 2023 and beyond through the establishment of a helpdesk system. Since the end of last year, we also started a tour of Belgium to provide every contractor in possession of a Process Certificate with the necessary explanation regarding the portal during a F2F meeting.

To date, most contractors are already registered on the portal and are taking their first steps into the world of MyBCCA. The plan is that eventually, in addition to the technique of carbonated concrete repair, other concrete repair techniques will also be included in this working method and even other schemes will be introduced into the portal.

In a second phase, (large) public building project managers will also have access to certain information on the portal. Exactly what information they will be able to access in what capacity is still part of an ongoing exercise.

The intended purpose of the portal still remains an **increasing awareness among contractors of the benefits of thorough internal control**. By doing so, we will converge to a point of **increased quality awareness** among all parties involved in a correct concrete repair.





THE SECTOR OF RAW MATERIALS FOR CONCRETE

To face the climate challenges of the future, the cement industry and more generally the concrete industry aims to reduce the environmental impact (reducing the carbon footprint) of concrete.

This explains the significant developments in the standardisation of the raw materials that make up concrete (e.g.: «low CO₂» cement according to NBN EN 197-5, cement made from recycled building materials), as well as the standards concerning ready-mixed concrete (e.g.: NBN B 15-001 of 2022, national supplement to NBN EN 206).

For all Type II binding agents and additives not covered by a product standard for use in concrete or whose use in concrete deviates from the requirements defined in NBN EN 206, NBN B 15-001, NBN EN 13369 and NBN B 21-600, Belgium has a normative framework (NBN B 15-100) since 2008 to demonstrate the general and specific suitability for an intended use. As such, Belgium is a pioneer in terms of the potential risks associated with the use of **new raw materials** marketed for use in concrete.

To complement the NBN B 15-100, in 2022 the standard NBN B 15-105 was published. This

standard describes the methodology for the assessment and certification of the suitability for use of inert raw materials for concrete. The publication of this standard now allows to better support the evolution of the market of raw materials (binding agents, type II admixtures and inert substances), which can be used as **raw materials in concrete, to reduce the environmental impact of concrete**. BCCA has always been active in this standardisation work.

In this context, BCCA was appointed by the UBAtc as approval operator in the field of alternative **raw materials** for concrete covered by NBN B 15-100 and NBN B 15-105, among others. The npo BE-CERT acts as a certification operator in this context. BCCA notes an increasing demand from the sector for technical approvals, but also a demand for standardisation of new types of products/binding agents that are not within the scope of the above standards. BCCA is involved in the ongoing dossiers as approval operator and carries out the risk assessment in the framework of the intended use. BCCA also takes into account the experiences of neighbouring countries. In this way, BCCA contributes to innovative developments in this sector, which is expected to continue to undergo major changes in the coming years.



THE SECTOR OF FIBRE CONCRETE

In 2022, the new version of the standard NBN B 15-001, the national supplement to NBN EN 206, was published in function of the evolution within the sector of ready-mixed concrete. Use was made of this revision to also include the evolutions concerning fibre concrete in a separate annex to the standard.

Within the framework of BENOR for ready-mixed fibre concrete, reference is made to the evidence under ATG and producers of ready-mixed concrete are exempted in whole or in part from carrying out Initial Type Tests on the basis of these data. Moreover, the **frequency of the tests for homogeneity of fibre concrete mixtures produced under BENOR is greatly reduced if reference can be made to the ATG and associated certification**.

In 2022, BCCA made the necessary adjustments to the ATG texts for this purpose, paying more attention to guidelines regarding the concrete composition, the maximum dosages to be used per fibre type and the correct incorporation of the fibres. If the BENOR-certified producer of ready-mixed fibre concrete adheres to

these guidelines and preconditions from the ATG, the homogeneity of the mixture is also guaranteed under the BENOR mark. This is important if one wishes to use fibres for concrete in structural applications for which the homogeneous presence of the fibres in a certain dosage is assumed in the calculations of the fibre concrete structural elements.

At a European level, in the course of 2021 and 2022, BCCA obtained an increasingly leading role in the developments at a European level regarding the **standardisation for fibres for concrete**. Both the chairmanship and the secretariat of CEN TC 104 WG 11 will be filled by BCCA. Recent developments also make it possible to create a platform within the European framework where aspects relating to fibre concrete as a product can be discussed and within which standards can be developed. This could provide a bridge between the fibres as a product for use in concrete and the new calculation methods, as provided for in the new version of EN 1992-1-1 (Eurocode 2) that is in full progress in the European framework.



BCCA is developing a new scheme for the ATG approval and certification of foundation piles.

For this purpose, a collaboration was set up between experts from different fields: SECO, Buildwise and some independent experts in the field of foundation piles.

The launch of this scheme came on the request of the market itself. The calculation of the theoretical bearing capacity of foundation piles must be based on the stipulations in NBN EN 1997, the corresponding Belgian annex (ANB) and finally the BBRI report 12/19. In this report, the use of some favourable factors (installation factor, model factor, safety factor) was linked to the presence of a quality system, the conformity with information sheets and the performance of instrumented pile tests.

However, the compliance with these quality conditions was not verified by an independent third party. Therefore, a request came from the association for foundation contractors (ABEF) for BCCA to integrate these aspects into an ATG with certification. The meanwhile published BBRI Report 20 therefore refers to these ATGs for the implementation of foundation piles with improved coefficients.

13 contractors submitted a total of 25 ATG applications for soil displacing screw piles, CFA piles, micropiles and other soil improvement techniques, among others. Initially, the choice was made to develop the largest group of ATGs (soil displacing screw piles).

The ATGs include a verification of the factors to be used, a check of the calculation methodology and the presence of a quality system to ensure proper implementation. To ensure the equal treatment of all dossiers, it was decided to draw up a generic approval guideline (GKL) and certification rules (TRA).

During the past year, intensive work was done on (1) improving the rules, (2) preparing the dossiers for soil displacing screw piles and (3) drafting templates.

1. Throughout the year, several adjustments were made to the approval guideline and rules. These are clarifications, additions or improvements following revision of the text by the Specialised Group and the Advisory Board.

2. These rules allowed all ATG applicants to conform to the regulatory requirements.

Once the FPC control system was sufficiently documented, the FPC audit was carried out at the applicants' premises. The findings with regard to the calculation methodology were also discussed during this audit. All comments formulated are followed up through a manufacturer action plan.

To verify the implementation of the internal procedures and work instructions, a building site check was carried out in each dossier. This involved following up on some pile installations and verifying all associated documents.

To corroborate the improved coefficients, the manufacturer can also provide experimental pile tests. These test data were analysed with regard to the compliance with the requirements of the approval guideline.

3. For the evaluation of these dossiers on the basis of the elements described above, general templates were drawn up: FPC audit, action plan, building site check, benchmark assessment, pile test evaluation, assessment report, certification agreement and ATG text.

At present, all the above documents are drawn up for 12 ATG dossiers of soil displacing screw piles and the ATG text was sent to the manufacturers along with the certification agreement for approval. The publication of this first set of ATGs is consequently expected in the first half of 2023.





THE PLASTIC PIPING SYSTEMS SECTOR

Given that plastic piping systems under BENOR exist for a long time and are standardised, the evolutions in the sector are rather limited to updating existing standards.

An exception in the past year was the replacement of the Belgian standard NBN T42-606 for water infiltration boxes by the European standard NBN EN 17152-1. In doing so, there were quite a few differences (including with regard to the requirements for long-term behaviour) between the two standards which meant that an evaluation of the existing certificates was necessary.

This resulted in a number of certificates being converted to the new standard but also a number of certificates being discontinued because the conformity with the new European standard could not be demonstrated. Overall, the European standard does bring better uniformity to the assessment of water infiltration boxes at a European level.

Since the standard is only being applied

for a short period of time, some minor adjustments are expected in the coming year, which will be followed up within the BENOR Sectoral Committee.

Within the sector of the **thermosetting** (glass fibre reinforced) **plastic piping systems**, the standards NBN EN 1796 (GRP piping systems for water supply) and the NBN EN 14364 (GRP piping systems for wastewater) **were replaced by the NBN EN ISO 23856**, which combines both old standards. The BENOR implementation rules were revised and the certificates in progress were converted to the new standard.

Overall, the trend at European level towards more **circularity, recycling** and **sustainability** continues. We see this also making its way to federal and regional levels in 2022. An example of this evolution is the inclusion of requirements in Vlarema 9 regarding the use of recycle in non-pressurised plastic pipes for public procurement. A number of requirements are imposed in it, which represent a major challenge for

the sector, which is taking new initiatives towards **recycling and reuse** to try to meet them.

For the sewerage sector, BCCA, in collaboration with COPRO and at the request of various commissioning authorities, has been developing **a certification system in the sectors of sewer rehabilitation and trenchless techniques** for several years now. This concerns the certification of processes of contractors operating in these fields.

An important aspect here is digitising the info that is relevant for the certification and making this info available in a simple way (both for contractors and BCCA). To make this possible, work is in full progress on the BCCA portal: MyBCCA that allows BCCA to monitor the various techniques at building site level. This portal was elaborated in 2022 for concrete repairs, the detailed development of this system for sewer rehabilitation is scheduled for 2023.





AIRTIGHTNESS

Since 23 Februari 2022, BCCA is recognised as **organiser of a quality framework for airtightness testing** and monitors what is going on in the international context through the membership of the TAAC (TightVent Airtightness Associations Committee) and as Gold partner of Tightvent, an initiative of the Air Infiltration and Ventilation Centre (AIVC). In 2022, we contributed to the VIP paper «Trends in building and ductwork airtightness in Belgium». The results were presented at the AIVC conference in Rotterdam.

Given current issues regarding high energy prices, it is to be expected that even more attention will be paid to the airtightness of buildings. As building airtightness requirements will increase, the importance of reliable measurements will certainly not decrease either.

VENTILATION

Through the ATG-E for demand-controlled ventilation systems, BCCA was involved in the first demand-controlled systems to enter the Belgian market and thus has more than 10 years of experience in this field. In demand-controlled ventilation systems, CO₂ detection is usually an important component, and in this way we were also able to follow the discussions on indoor air quality in relation to the spread of the corona virus.

At the end of 2022, the elaboration of the study on regulatory provisions relating to the improvement of the indoor air quality in spaces closed to the public was awarded to a consortium that includes BCCA. BCCA will develop this study together with Buildwise, Ghent University, VITO, Cerema and Knight moves in 2023.

Consequently, BCCA remains closely involved in evolutions in ventilation and indoor air quality.



For the past three years or so, renewable energy activities have been made more visible within BCCA by incorporating them into the **'Building Performances'** branch. This action was aimed at developing the technical know-how in the field of renewable energy. In this fast-changing world, knowledge and relationships are updated and supplemented through participation in specific events and training.

More than ever, renewable energy is primordial in society. In the face of the drive towards increasing electrification and independence from fossil fuels, end users want **high-quality and safe** installations of renewable technologies.

Combinations of technologies are more and more often fulfilling a home's energy needs. Solar panels, solar water heaters and heat pumps provide the electrical or thermal energy. Storage systems, such as buffer vessels or batteries, optimise the generation and use of energy. All this requires an arrangement adapted to the needs of the house and its occupants.

The combination of technologies creates integrated, more complex and more optimised systems.

End users need help to address a quality-oriented installer. To this end, installers can distinguish themselves through their participation in training and the confirmation from an independent party. And this is where BCCA is making its contribution to the energy system of the future.



COMMUNICATION

30 YEARS AT THE SERVICE OF THE CONSTRUCTION SECTOR

In 2022, **BCCA** celebrated its **30th anniversary**. This information was symbolically conveyed throughout the year through a variety of communication tools, be it in the media, on the website or in staff e-mail signatures.

And it is surrounded by the key players of the Belgian construction sector, mainly experts, building specifiers and designers, that BCCA wanted to celebrate its 30th anniversary on **Thursday 22 September** at the **Théâtre du Vaudeville**, in the heart of the Saint-Hubert galleries in Brussels; a mythical and emblematic venue of Brussels life. Through the show **SANDDORN BALANCE** performed by Japanese artist Miyoko Shida Rigolo, emphasis was placed on BCCA Direction's control over the **quest for a permanent structural balance** and a **great flexibility** to meet the sector's challenges.

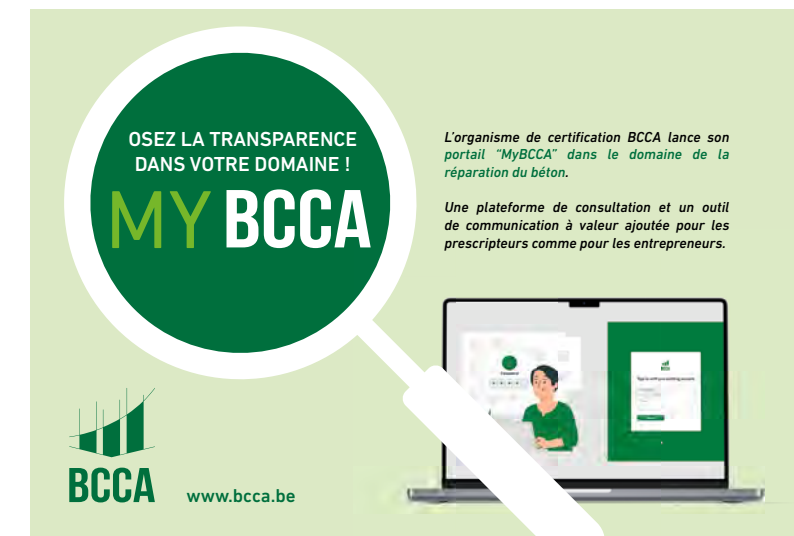


COMMUNICATION ON THE LAUNCH OF MYBCCA FOR CONCRETE REPAIRS

On the occasion of the **Concrete Day** in Leuven on 13 October 2022, BCCA officially presented its new portal: MyBCCA.

A specific **workshop** was organised to present the portal, its functions and objectives, and an article was published in the supplement of "La Chronique" illustrating the challenges of quality control of concrete repairs on building sites.

An **ad-hoc visual** and a banner in the e-mail signature of the staff involved in the activity were created to promote MyBCCA and will remain in the signatures through 2023 to maintain attention and to direct potential users to this new tool.



A **video clip** presenting MyBCCA as a digital tool that facilitates the organisation of the monitoring of the quality of concrete repairs carried out on site was recorded by Canal-Z on the initiative of the npo BENOR, in the framework of the programme Z-BOUW. This video clip can be viewed here.

[CLIC HERE](#)


Major changes and challenges facing the construction sector serve to strengthen BCCA's mission

PROVIDE **CONFIDENCE IN QUALITY**
IN ITS BROADEST SENSE



SUPPORT **INNOVATION**



RISK MANAGEMENT – FITNESS FOR USE

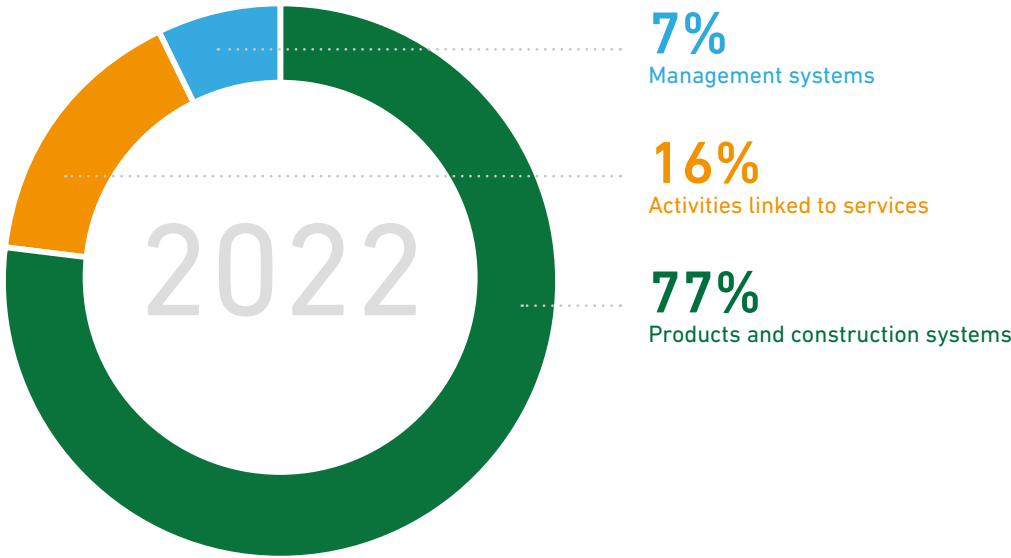


CERTIFICATION ACTIVITIES
2022 RESULTS

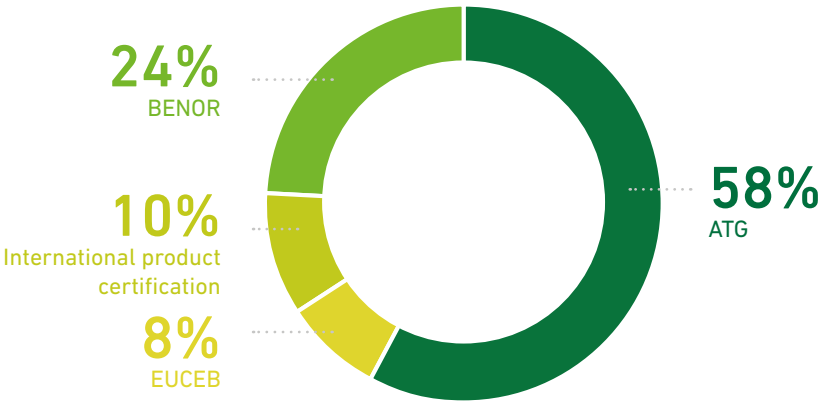
We note that the use of the **voluntary certification for construction products and systems** increases every year; reflecting the dynamism of the construction sector, especially in terms of product innovation.

In 2022, this activity accounted for **77%** of BCCA's total activity volume, which is a slight increase compared to 2021.

Service-related activities account for **16%** of the volume, while the certification of **management systems** represents **7%** of the total volume.

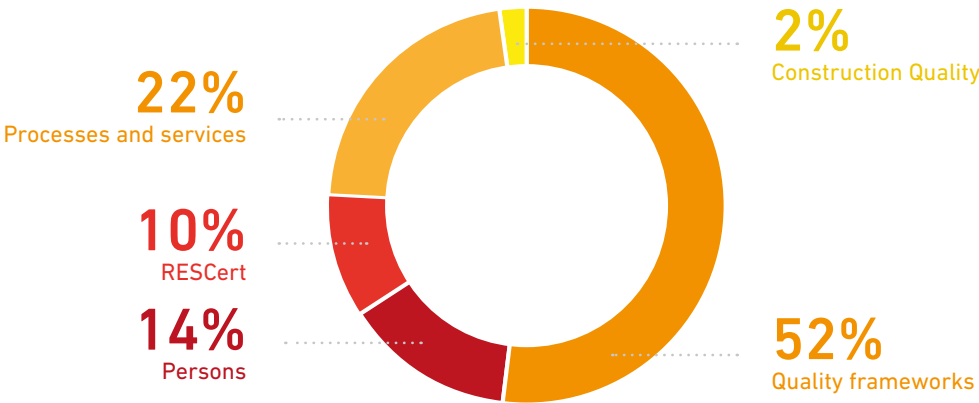


Certification of construction products and systems



Within the framework of the product certification, the two local voluntary certification marks, namely the **ATG** with certification and the **BENOR** mark, are the core activity of BCCA for a wide range of sectors. The assessment of the fitness for use of products and the accurate determination of the performances in the building are becoming increasingly important for efficient and sustainable construction. Gradually, **circularity criteria** are being incorporated into these certifications to meet the ever-increasing requirements for carbon neutrality and the protection of natural resources, but also to meet the requirements of the European Taxonomy.

Certification in relation to service activities



Quality frameworks are an important part of BCCA's service provision activities. This is especially the case of the quality framework for the **post-insulation of cavity walls**. The energy crisis has made both the general public and the professionals even more aware of the importance of insulating buildings and, more specifically, cavity walls.

Having **qualified staff** has also become a challenge in the construction sector. The need for training is very high and having trained and qualified personnel, whose training is recognised, is becoming a necessity as products and execution techniques are becoming more complex.

PRESENTATION OF ACTIVITIES 2022 (IN NUMBERS)

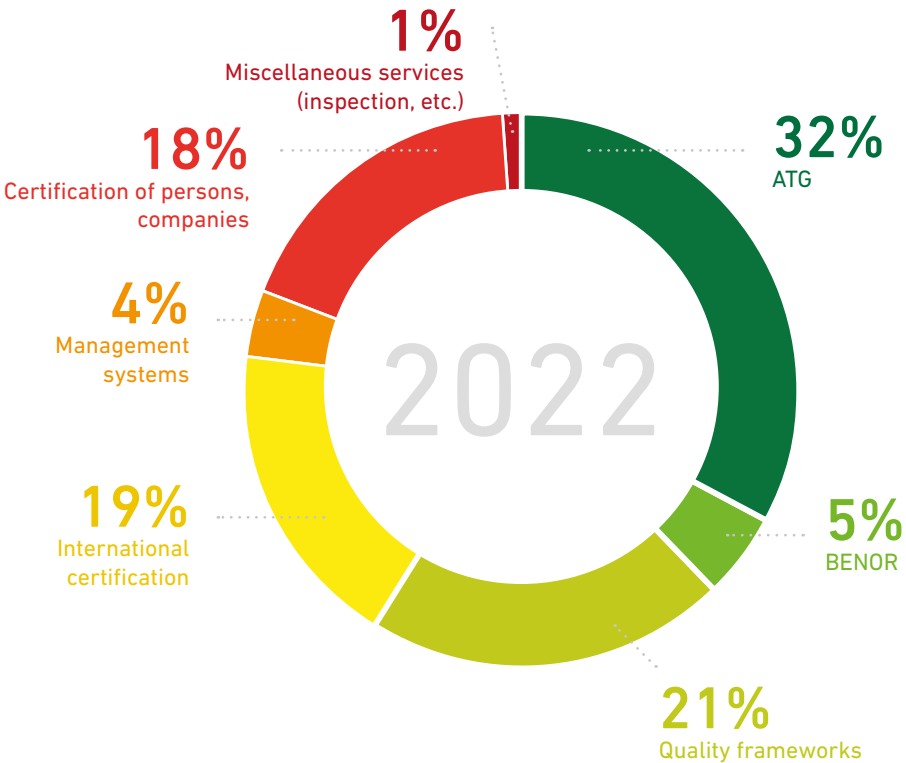
In 2022, BCCA managed more than 9700 certificates, attestations and quality labels for a wide range of applications.

The volume of activity was particularly high in 2022, reflecting, on the one hand, the high level of activity in the construction sector in general and, on the other, an unabated interest in the recognition of the quality and the fitness for use of construction products and systems. The evolution of the need for recognition of the skills of persons was also strong in the sector of the renewable energies, a true trend that continues.

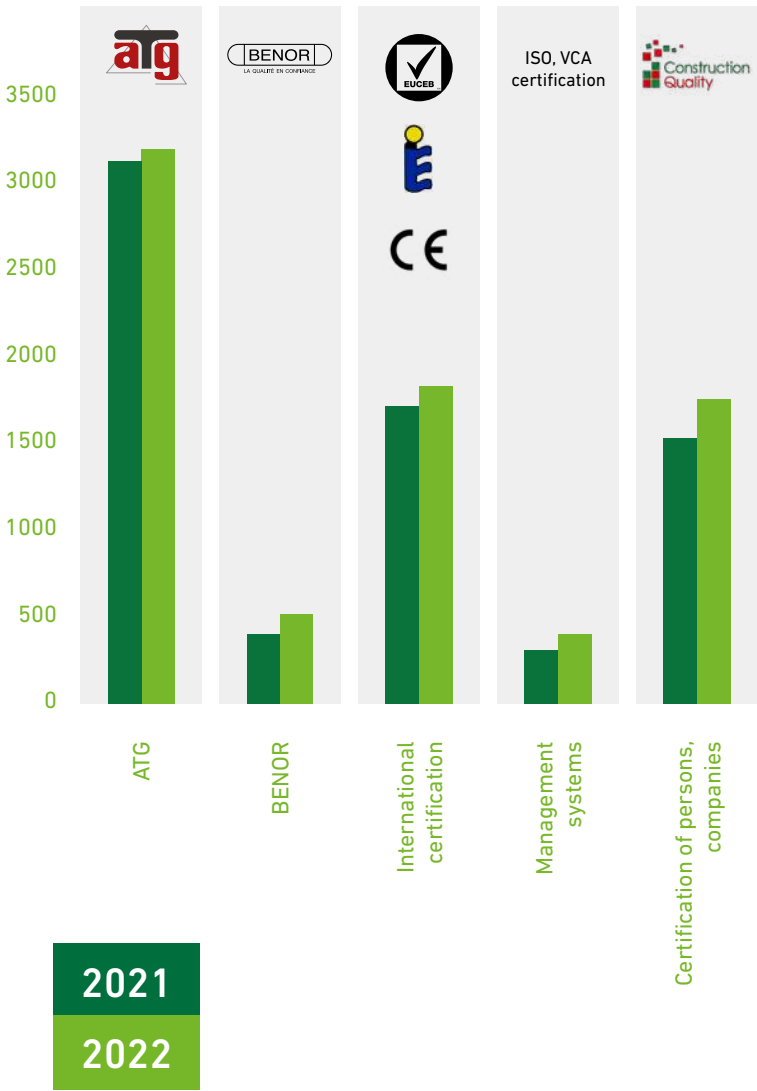
The distribution of the volume of activity across different types of certifications remains fairly stable.



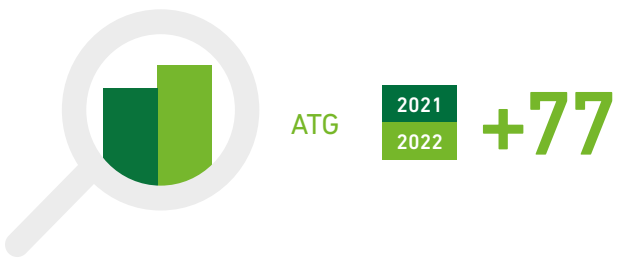
Each request is specific and each sector or initiator of a certification request has its own expectations and obligations. Within this complex framework, BCCA adapts its approach when necessary. The various services proposed are not really comparable, but they illustrate BCCA's ability to innovate in order to meet the increasingly varied demand.



PRESENTATION OF ACTIVITIES 2022 (IN NUMBERS)

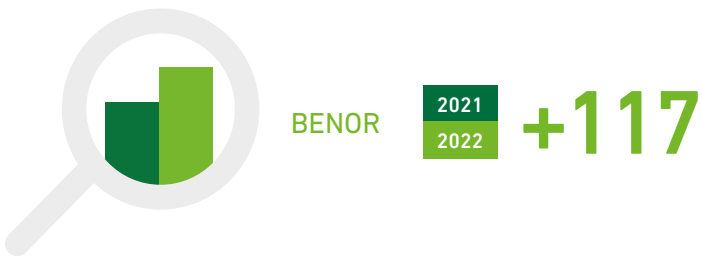


Focus on the evolution of the certification activities



The **ATGs** and the certification rules are regularly updated to take into account the technological developments of products, the national and international standardisation and the evolution towards new applications. The dynamics observed in the technological evolutions among manufacturers and the numerous normative evolutions had a significant impact on the increase in the number of ATGs delivered in the various sectors concerned in 2022. This is particularly true for the sectors of insulation, flat roofs and fibre concrete, for which BCCA has made the necessary adjustments to the ATG texts by paying more attention to the guidelines on the composition of concrete.

The encouragement of innovation and the gradual integration of **circularity criteria** into the ATG texts make this certification an undeniable ally in supporting the technological evolutions of the future.



2022 was a fairly busy year for the delivery of **BENOR** certificates, mainly in two sectors. On the one hand, for the sector of the plastic pipes and fittings, an evaluation of the valid BENOR certificates was carried out and a certain number of these certificates were converted to the new European standard NBN EN 17152-1 for **boxes for infiltration systems**. In the sector of the **thermosetting plastic piping systems**, the BENOR implementation rules were modified and the certificates that were still valid, were converted to the new standard NBN EN ISO 23856.

On the other hand, in 2022, in the sector of **ready-mixed fibre concrete** with BENOR mark, BCCA, in consultation with the manufacturers of fibres for concrete, drafted new prescriptions for the monitoring of the certification and will ensure that these rules are correctly applied as from 2023.

Focus on the evolution of the certification activities



In terms of certifications with an international scope, the **CE marking** has seen diverse evolutions, depending on the sector, but especially depending on the geographical area concerned. As a result of the Russia-Ukraine conflict, BCCA has had to suspend a number of certification dossiers in the insulation sector, while at the same time, as a result of the Brexit, the cooperation between BCCA and the British Board of Agreement (BBA) has been established within the framework of CE marking and of the certification related to the **UKCA Marking**.

The applications for the **European voluntary quality label CEN KEYMARK** for the certification of insulation products (without their implementation) also continued to develop positively. In 2022, **more than 120 factory-made insulation products** were manufactured under a CEN KEYMARK certification delivered by BCCA.

The **EUCEB** certification was also affected by the war in Ukraine; as a result, the certification of 12 certification holders was suspended. Furthermore, the demand remains very dynamic. In a context where the measurements and requirements regarding the indoor air quality in buildings are increasing, the recognition by a third party of the non-carcinogenic nature of the insulation products composed of mineral fibres is obviously more relevant than ever. In 2022, BCCA has granted the EUCEB certification to **8 new holders** and a future growth of 4-5% per year is expected.



In 2022, the most important ISO certifications were renewed, the majority of which were the **ISO 9001:2015** certification, often extended to the environment (**ISO 14001:2015**) or to safety, through **ISO 45001:2018** and **VCA 2017/6.0** certifications, which continue to experience strong growth.

This year was also marked by the introduction of the certification according to the **CO₂ Performance Ladder**, which is currently being tested in the country's three regions and for which the needs of the sector's companies are constantly evolving. This new demand is directly linked to the carbon neutrality targets that most companies, especially the large ones, have set themselves within the framework of the European Green Deal.



The certification of professional skills of **persons** is on the rise, which is partly due to the training for the quality frameworks, but is also linked to the context of new technologies such as the installation of photovoltaic panels, heat pumps or solar water heaters. The added value of working with **qualified staff** is indisputable, especially in an environment where materials, building systems and installation techniques are becoming increasingly complex. These applications are additional to applications for renewal of the certification of industrial painters and welders of plastic pipes and membranes.

The **certification of services and processes** (including the certification of U-value calculations) is still progressing in the sectors of external joinery, façades and concrete repairs and protection. In 2022, for the façade sector, BCCA also worked with the stakeholders concerned to develop a simplified calculation method for **the measurement of the impact of mechanical fixings on the thermal insulation level of externally insulated façades**. This method is effective in the Flemish Region since 1 January 2023 for all new building applications.

The background of the slide is a composite image. The top right portion shows a calm sea meeting a light grey sky at a distant horizon. Below this, the image transitions into a series of overlapping, wavy, ribbed patterns. On the left, these waves are a vibrant green, while on the right, they are a muted grey. The waves appear to flow from the bottom towards the top right, creating a sense of movement and depth.

//OUR ORGANISATION

MANAGEMENT STRUCTURE

The **Board of Directors** met on 10 June and 25 October 2022. The General Assembly took place on 10 June 2021. A Extraordinary General Meeting was held on 13 December 2022 to approve the amendment to the articles of association to take effect on 1 January 2023 (see text box).

The **Management Committee** held 10 meetings in 2022. The functioning of the Management Committee is described in the internal rules. For instance, in delegation of the Board of Directors, the Management Committee proactively monitors and reports on the implementation of BCCA's strategy and operational functioning.

The **General Management Committee for Certification & Approval** held 43 meetings in 2022. This committee works in delegation of the Management Committee and reports to it. Its task includes the general management of the rules for certification and approval and the validation of certification concepts, the certification operations and the certification decisions.

During 2022, special attention was paid to the risk management in relation to COVID, the impact of the conflict in Ukraine, the accreditation, the rationalisation of the certification processes and the structural approach of the organisational system.

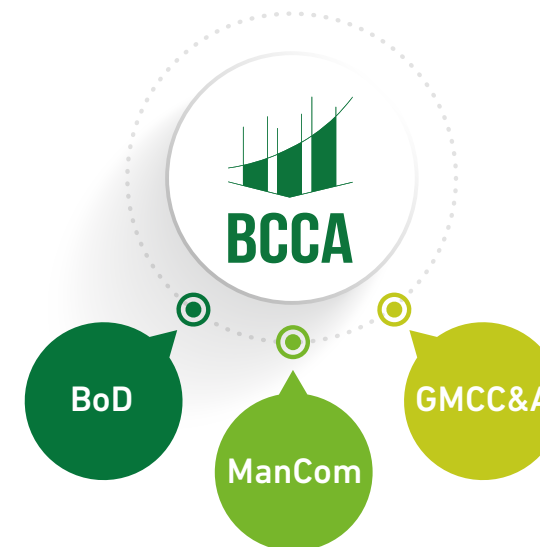
BOARD OF DIRECTORS

Position	Member	Name
Co-Chair	SECO	E. Van Celst
Co-Chair	BUILDWISE	J. Willemen*
Director	SECO	BH Group SA, with permanent representative B. Heiderscheidt
Director	BUILDWISE	O. Vandooren
Director	SECO	O. Delbrouck
Director	BUILDWISE	B. Michiels*

* resigned on 15/12/2022

MANAGEMENT COMMITTEE

Position	Member	Name
Chair	BUILDWISE	B. Michiels
General Manager	SECO	O. Delbrouck
Technical Manager	BUILDWISE	E. Winnepenninckx
Innovation & Communication Manager	SECO	C. Hiernaux
Technical observer	BUILDWISE	O. Sabbe
Finance Manager	SECO	M. Coppieters
General Advisor	SECO	B. De Blaere



GENERAL MANAGEMENT COMMITTEE FOR CERTIFICATION & APPROVAL

Composition of the Committee

BCCA General Manager:
Olivier Delbrouck

BCCA General Advisor:
Benny De Blaere, acting as chairman and validates by signature the certificates and approvals

BCCA Technical Manager:
Eric Winnepenninckx, who mainly intervenes for the ATG system

General Certification Manager: Sammy Gruss (until 20/05/2022), succeeded by Jean-François Labrouche, who monitors the day-to-day operations of the certification.

Observer: Frederic De Meyer (who will take over as Technical Manager from Eric Winnepenninckx as from 1/1/2023).

AMENDMENT OF ARTICLES OF ASSOCIATION

(valid from 1/1/2023)

At the Extraordinary General Assembly on 13 December 2022, the amendment of the articles of association was approved by the members. The main amendments are the following:

- The removal of the reference to the founding members
- The broadening of the objectives to include activities to achieve the aims with
 - the awareness, the training, the guidance and consultancy related to the certification and approval of products, quality systems, persons, environment and safety, and this within the framework of the applicable standards and laws; and
 - the techniques of quality control and in particular those of organisation, design, products, execution and maintenance.
- The number of effective members shall not be less than two, of which at least one shall be of category A. Furthermore, the effective member category B will be divided into B1 (Buildwise) and B2 (other). The voting rights per category of members (60 votes in total for effective members of category A, 1 vote per effective member of category B) are maintained.

- The amendment of the principle of co-chairmen to one chairman
- The composition of the Board of Directors which will henceforth consist of at least four members of which (i) three will be appointed on the nomination of the effective members of Category A, (ii) one will be appointed on the nomination of the effective member of Category B1 and (iii) to the extent requested by the effective members of Category B2, one will be appointed on the unanimous nomination of the effective members of Category B2.
- The Board of Directors can only make valid decisions when at least three administrators are present or represented, at least two of whom must be nominated by the effective members of category A. All decisions are taken by a simple majority of votes. In case of a tie in votes, the chairman's vote will be the determining vote.
- The day-to-day management is carried out by a «General Manager».
- The amendments according to provisions of the new Code for Companies and Associations.

CHANGE OPERATORSHIP UBAtc

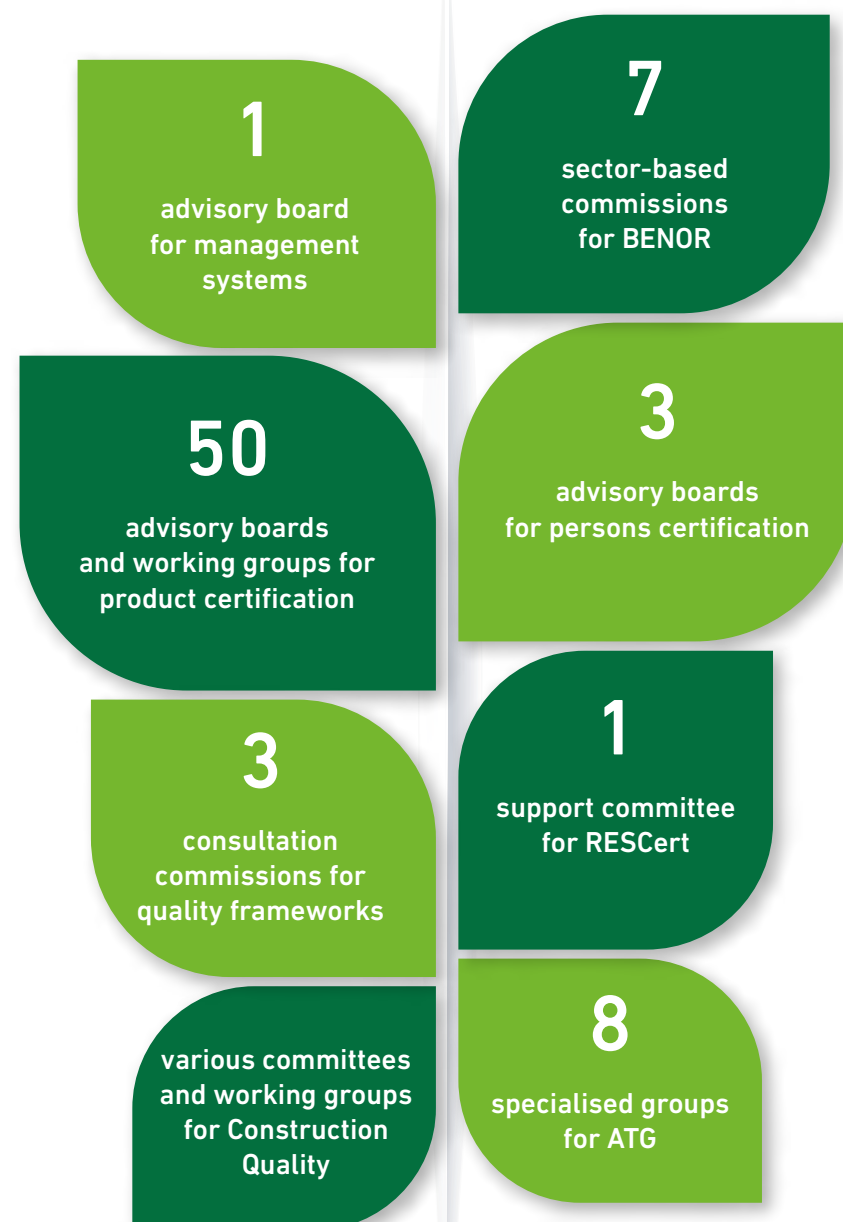
As from 2023, SECO Belgium SA and BUILDWISE will become the approval operators for the UBAtc. BCCA will remain certification operator and will take on the logistics and the financial organisation as single point of contact for the clients.

2023

CONSULTATION PLATFORM

BCCA plays a central role as a facilitator in organising consultations between stakeholders. They rely on BCCA to **set up the advisory boards and relevant sector-based technical commissions** that will **set the certification rules, reflect on quality management, evaluation rules, risk prevention management, standardization and any aspect pertaining to quality.**

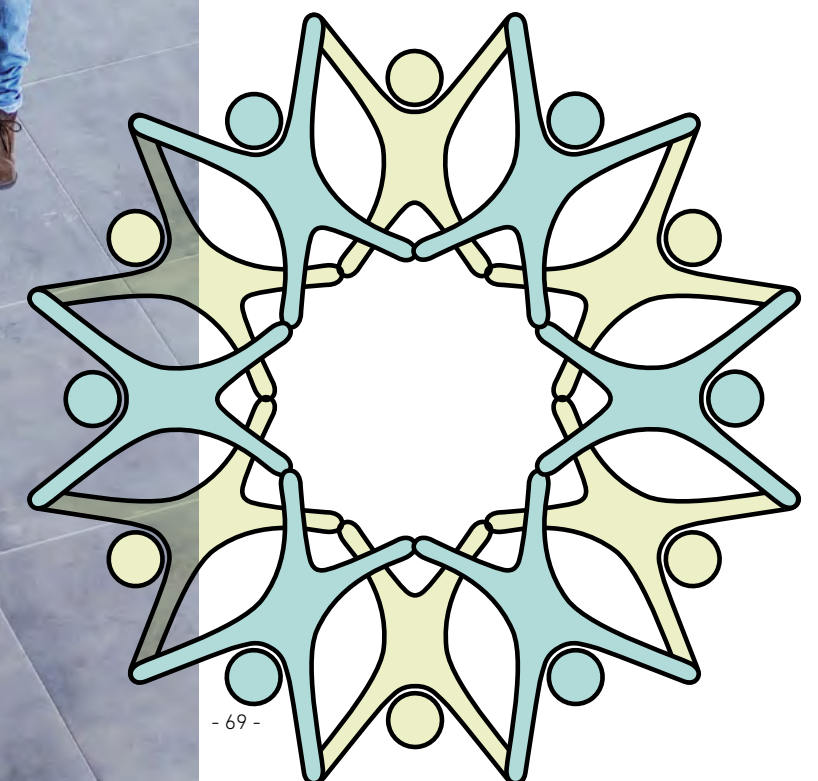
The operational structures in 2022 were as follows:



STAFF- TESTIMONIALS

The diversity of the skills, the high level of qualifications, the enthusiasm and the dynamism of the teams working for BCCA are undoubtedly the company's main strength in facing the new challenges of the 21st century, such as climate change, the energy crisis and technological developments.

Thanks to motivated employees working in an exciting environment in which they can constantly develop, both locally and internationally, BCCA can count on a team with a very wide range of professional experience, as demonstrated by the following testimonials.





CONGRATULATIONS !



ir. Nadia Barhdadi

After graduating with a degree in civil engineering in construction in 2011, I joined BCCA in the «Facades» department. As a young graduate, I was then trained to become an Assessor and soon became Sector Manager for building systems. Since I started at BCCA, I have been continuously in training and learning every day from highly experienced colleagues who are always available to share their technical knowledge.

There is no routine in my daily work, the tasks and sectors are very diverse and varied. Production audits both nationally and internationally, building site inspections, drafting thermal calculation notes, participating in various working groups, reporting for technical approvals ... Being able to participate in improving the quality in the building products sector is very satisfying and enriching.

One thing I particularly like about my job is the great flexibility we get. This has become even more important now that I am a mother. I can organise my work optimally to combine family and work. The small bonus is that I am surrounded by a large number of female colleagues, which is not common in this rather masculine world!



CONGRATULATIONS !



ing. Baudouin Verriest

Almost 35 years ago, after graduating from ECAM with a degree in industrial engineering in construction, I started my professional career at SECO.

Although I was initially hired for a short-term assignment in the IT department, which then consisted of two passionate civil engineers, this became a permanent assignment of almost 25 years. Alongside this assignment, I was able to participate in the deployment and control of the BENOR mark, applied to natural aggregates, a true part of the history of quality control, for about ten years.

After a brief period of working on building site inspections, another important part of SECO's missions, while pursuing my IT assignments, I had the opportunity to focus fully on a full-time collaboration with my colleagues in SECO/BCCA's Inspection/Certification departments.

My work there is very varied, as I apply my energy and skills to diverse sectors such as wood preservation, fire doors, natural slates, natural stones, natural aggregates, concrete,... and in addition to these responsibilities, I continue to provide IT support to my colleagues within the framework of our ERP!

With this short story, I can conclude that a professional career working for the same employer can be rich in diversity and full of interesting encounters, both with colleagues and with clients.





ir. Ophélie Masson

I graduated from UCL (Louvain-la-Neuve) in 2017 as a civil engineer in chemistry and materials science. After my studies, I worked in the nuclear sector for four years. When I wanted to change jobs to develop new skills and learn new things, I discovered SECO - BCCA through the internet.

Eight months ago, I joined BCCA as an Assessor at the «Insulation» department. As an Assessor, I mainly carry out audits at manufacturers of insulation materials. I visit manufacturers to check whether the products they produce meet certain quality requirements during their certification and whether the company has a quality system to ensure the performance of its products. Another part of my job is keeping informed about the applicable standards and rules and participating in meetings related to certification activities.

Before starting work as an Assessor, several months of training are required, as one has to master several elements (standards, rules, how to conduct an audit, etc.). This training consists more specifically of sharing experience and knowledge with the colleagues of the team.

In short, as an assessor at BCCA, you will have the opportunity to learn a huge number of new things about certification and building materials, to get to know different companies, to ensure a certain level of quality in the building products that are marketed, ... It is also a job where you have some freedom in your organisation and the opportunity to travel.

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ir. arch. Daan Goossens

In 2021, I graduated as an engineer-architect from KU Leuven. After my studies, I was looking for my first job and that's how I ended up at BCCA. Because of my background as an architect, the construction sector is definitely a sector that interests me and I was mainly looking for a job in the technical side of this sector.

At the beginning of my training at BCCA, a lot of documents came my way: from European and Belgian standards to technical prescriptions and rules. By going through these documents and meanwhile visiting clients with colleagues, I began to understand the requirements to which products and systems must conform. I learned in the field how we proceed as auditors or assessors to check all the aspects involved. After a few months, I was already able to perform certain checks independently while I was also still in training for other sectors and certification schemes.

This job offers me a lot of freedom as I can schedule everything on my programme myself during the year. That independence and also the great diversity is what attracts me at BCCA. Despite this independence, my colleagues are always available if I have any questions and consultation is also always possible if there are doubts.

I now work in the sectors of post-insulation of cavity walls, suspended ceilings and pile foundations, among others. This work is done within the framework of CE marking or technical approval ATG. Another thing that strongly appeals to me is that I can be involved in the entire (production) process, ranging from, for example, the production of the raw materials to the installation on site. The fact that I can go to many different places and end up both at a large manufacturer with many employees and at a very local company makes it interesting.

In other words, a challenging job!

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ACCREDITATION AND NOTIFICATION

Where accreditation is possible or has been granted, BCCA carries out its activities under BELAC (Belgian Accreditation Body) **accreditation**. Accreditation confirms the reliability and impartiality of BCCA activities. BELAC accreditation indicates that our services meet international standards (NBN EN ISO/IEC 17065, 17021-1, 17024 and 17020) and are recognised accordingly.

BCCA is **notified** as a **certification body for Construction Products Regulation**. This means that the FPS Economy notified it as a certification body before the European Commission, meaning manufacturers can use our services to fulfil their obligations under European legislation on construction products.

MANAGEMENT SYSTEMS	PRODUCTS, PROCESSES AND SERVICES	PERSONS	INSPECTIONS
under ISO 17021-1	under ISO 17065	under ISO 17024	under ISO 17020
 021 EMS	 021 PROD	 021 PERS	 021 INSP
ISO 9001 ISO 14001 ISO 45001 VCA Achilles Asbestos removal	    U-value certification	Professional painters and welders	Various schemes

GLOSSARY

BBG: Belgian Concrete Group

Becetel: Belgian Centre for technological research of pipes and fittings

BUCP: Belgian Union of certification and attestation bodies, inspection bodies and Belgian laboratories for construction products

CEN: European Committee for Standardization

Certibel: Belgian Association for certification and inspection bodies

EOTA: European Organisation for Technical Assessment in the construction products field

Eurocer-Building: Association of product certification bodies in Europe operating in the construction sector

NBN: Belgian National standardization Body

UBAtc: Belgian Union for Technical Approval in construction

UEAtc: Union of European Approval Bodies (BCCA is an indirect member through the UBAtc)

WFTA0: World Federation of Technical Assessment Organisations (BCCA is an indirect member through the UBAtc)



BELGIAN CONSTRUCTION CERTIFICATION ASSOCIATION NPO

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