# 1. The National Bank as a company\*

1.1	A year marked by inflation and implementation of the Bank's Strategy 2025				
	1.1.1	Central banking in times of inflation	17		
	1.1.2	Continued implementation of the Bank's Strategy 2025 and the development of a prudential strategy	21		
1.2	News	from the Bank's various departments	27		
	1.2.1	Furthering knowledge to inform public debate	27		
	1.2.2	Monitoring turbulence in the global banking system	33		
	1.2.3	Creation of a centre of excellence for crisis management in the context of banking supervision	39		
	1.2.4	Prudential supervision of insurance and reinsurance companies in uncertain times	43		
	1.2.5	Trends and developments in payments and the digital euro	45		
	1.2.6	Preparedness to resolve a banking crisis without recourse to the public purse	53		
	1.2.7	Statistics at the Bank: renewed resilience in a spirit of continuity	55		
	1.2.8	Increasingly efficient management of microdata	66		
	1.2.9	Further streamlining of the cash cycle	71		
	1.2.10	Financial markets, at the heart of central banking activity	74		
1.3	Innovation in support functions				
	1.3.1	Renewal of the IT landscape	77		
	1.3.2	Modern tools for effective cross-cutting support	79		
	1.3.3	Reform of human resources and remuneration policies	92		
	1.3.4	Non-financial risk management	95		
	1.3.5	The real estate project: an innovative strategy	98		

<sup>\*</sup> This section of the Corporate Report should be read in the light of the developments and trends described in the "Economic and financial developments" report for 2023. It may also be useful to refer to the list of abbreviations appended to that report when reading this section.

# The National Bank of Belgium at the service of society

The tasks carried out by the National Bank of Belgium – at the Belgian, European or even global level – are first and foremost in the general interest. Some of these tasks fall within the traditional remit of a central bank, such as:

- Putting into circulation and withdrawing banknotes (on behalf of the Eurosystem) and coins (on behalf of the Belgian Treasury).
- Participating in the preparation of the Eurosystem's monetary policy and the implementation of its decisions.
- Carrying out economic and financial research at the Belgian, euro area and international levels.
   These studies underpin both the Bank's own decision-making and the policy of the federal government and other levels of government in Belgium.
- Drawing up the Belgian balance of payments, financial accounts and statistics relating to financial markets and institutions.
- Working to maintain financial stability.
- Supervising, within a European framework, financial infrastructures established in Belgium.
- Managing, within a European framework, central bank settlement systems, large-value interbank transfers in euros and other transfers in euros.
- Providing advice to public authorities, both regularly and on a periodic basis.

In carrying out the above activities, many of the Bank's representatives sit on international bodies such as the IMF, the Bank for International Settlements, the OECD, the ECB, the Single Supervisory Mechanism, the three European supervisory authorities (the European Banking Authority or EBA, the European Securities and Markets Authority or ESMA, and the European Insurance and Occupational Pensions Authority or EIOPA) and others. The Bank also assists and advises the Belgian public authorities, in particular through the Council of the European Union and Belgium's Permanent Representation to the EU.

Printing banknotes was long one of the Bank's core activities, but as the purchase of banknotes proved more efficient, the Bank ceased its printing operations in 2019. Since then, the Bank has purchased banknotes from the Portuguese and Austrian central banks.



Over time, the government has entrusted the National Bank with other tasks, so that it now plays a unique role in the Eurosystem. Acting as State cashier, since 1850. Producing statistics on public

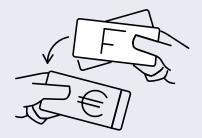
- Ensuring the prudential supervision of credit institutions, stockbroking firms, settlement and clearing institutions, electronic money institutions and insurance companies, whether or not in cooperation with the relevant European bodies.
- Performing tasks as the national resolution authority within the Single Resolution Mechanism of the banking union.
- Ensuring the continuity of the country's financial sector and crisis management.
- Preparing the national and regional accounts.

- finances.
- Managing a platform to collect and publish the annual accounts of most legal entities active in Belgium.
- Operating the Individual Credit Register, the Corporate Credit Register and the Central Point of Contact (CPC).
- Analysing microeconomic data on companies, industries and economic operators in general.
- Operating a securities settlement system for fixedincome financial assets.

# The National Bank of Belgium in 2023 in a few figures

73 931

Belgian franc banknotes
exchanged for a value of
1 871 040 euros



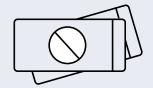


most attractive employer

in Belgium according to Randstad

22 blog posts





11 056

counterfeit notes

withdrawn from circulation or 16 per million banknotes (estimate)



563 895 130

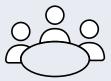
notes deposited

with the Bank totalling 19 925 280 790 euros

14

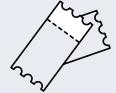
meetings of
the Governing Council

attended by the Bank's governor



52 720 followers on LinkedIn, X, Facebook and YouTube

32 873
visitors to the Museum
(a record number)





10 257 046 visits to nbb.be



## Central banking in times of inflation

A central bank carries out a wide array of tasks, such as ensuring the circulation of money in the country and the security of (cash and digital) payments. The NBB monitors the health of financial and payment institutions in order to reduce the risk of a financial crisis. It also carries out numerous studies and collects important statistical information that sheds light on the economic situation and outlook. However, one of the NBB's main tasks is to control inflation so that money retains its value. In this way, the Bank creates the confidence needed for a healthy economic climate in which businesses can invest and households can consume, enabling the economy to grow.

One of the key objectives of central banks' monetary policy is to keep inflation under control. In the euro area, monetary policy is determined by the Governing Council of the European Central Bank (ECB). As the head of a central bank that forms part of the Eurosystem, the Bank's governor is a member of the

Governing Council. Together with the other national central bank governors and the members of the ECB's Executive Board, he therefore plays a leading role in setting the ECB's interest rate policy.

The ECB aims for an inflation rate of 2 % in the medium term. Until 2021, inflation was below this level and the ECB had to conduct a very accommodative monetary policy to achieve its inflation target. However, in the wake of the reopening of the economy following the Covid-19 pandemic and Russia's invasion of Ukraine, a strong wave of inflation swept through the euro area. Between July 2022 and September 2023, the Governing Council raised interest rates at each of its ten monetary policy meetings; 2023 was thus largely marked by the fight against excessively high inflation in the euro area.

This chapter provides an overview of what high inflation means for a central bank like the National Bank of Belgium.

## The governor's role in interest rate policy

Inflation kept the governor and many of the Bank's departments and services busy throughout the year. In 2023, the governor played an active role in the discussions and assessments that preceded each interest rate decision, just as he was of course present when the ECB Governing Council determined the course of interest rates and/or purchasing policy. The international media consider Governor Wunsch to be hawkish when it comes to monetary policy and believe he is more inclined to fight excessively high inflation by raising interest rates.

As a member of the ECB Governing Council, the governor had to answer questions from the international media on interest rate policy and inflation expectations on an almost weekly basis. Following the IMF Spring Meetings and Annual Meetings in Washington and Marrakech, for example, the Bank's Communications team facilitated the organisation of interviews between the governor and reputable press agencies and specialised media outlets.

The governor's views on the ECB's interest rate hikes were set out in numerous interviews given to leading international newspapers such as the Financial Times, the New York Times and the Böersen Zeitung.

In the autumn, the ECB organised a meeting between the governor and around twenty Belgian and Dutch journalists to explain monetary policy and the

interaction between Frankfurt and the Eurosystem central banks. This meeting provided an opportunity for a fascinating discussion on the setting of interest rate policy and the role of central bank governors in this regard.

The governor also spoke about monetary policy at several international conferences. In the early spring, he was invited to take part in "The ECB and its Watchers" event in Frankfurt, while in the autumn he was a panellist at the Frankfurt European Banking Congress. Finally, when he presented the Bank's annual report to the Finance Committee, the governor dwelt at length on monetary policy and inflation.

## The Bank prepares interest rate policy

The governor can count on the support of the Bank's many experts in Brussels when preparing for monetary policy meetings. He can thus form an opinion based on their advice and is well equipped to take part in monetary policy discussions. These experts include monetary policy specialists in the Economics



Governor Wunsch spoke at, among other events, the 33rd Frankfurt European Banking Congress and the annual "The ECB and its Watchers" conference, also held in Frankfurt.

and Research Department and staff from the Financial Markets Department, the Legal Department and the International Coordination and Eurosystem Department. The Communications Department keeps a close eye on the international media, so that the governor is kept informed of statements made by his peers to the press or on social networks. This preparation is discussed in more detail later in this report (see section 1.3.2).

## The impact of inflation: study and follow-up

Twice a year, the Bank's Economics and Research Department publishes economic projections for Belgium, based on its own models. These projections are traditionally released in June and December. Inflation and the effects of interest rate policy on purchasing power or on the property market following the rise in mortgage rates, the risks of recession and the impact of inflation-induced wage indexation in Belgium are obviously important themes. The Bank's economic projections for Belgium also supply the euro area data on which the ECB bases its interest rate policy discussions. This past year, the Economics and Research Department also investigated whether Belgium had experienced "greedflation". Based on an analysis of microdata from several thousand Belgian companies, it concluded that, in general, companies had not sought to make excessive profits by raising their prices faster than the rise in their production costs.

In its capacity as the financial sector supervisor, the Bank also closely monitored the impact of inflation on financial institutions (banks and insurance companies). To find out more, see the section of this report on supervisory activity.

## Interest rates on savings accounts

The ECB's key interest rates obviously strongly influence market rates, which help to determine the interest rates charged by Belgian banks to borrowers and the interest banks themselves pay on current and term accounts. Several years of low policy rates kept the interest rates charged by banks at historically low levels in recent years. Following publication of the Bank's annual report in March 2023, the governor stated that, in view of the ECB's rate rise, banks certainly had room to raise interest rates on savings and



Vice-Governor Steven Vanackere shed light on the spring 2023 economic projections for Belgium during a webinar.

term accounts. However, he also pointed out that Belgian banks had many loans with low, fixed rates and long maturities on their balance sheets and that, as a result, the interest rates on savings could only be raised gradually. This point was widely discussed in the press and political circles.

In order to oblige banks to increase their interest rates more quickly, Parliament proposed linking the minimum interest rate on savings accounts to an ECB policy rate or the yield on ten-year Belgian government bonds. The Bank, as the supervisory authority responsible for ensuring the health of the financial sector, was asked to give its opinion on these legislative proposals. It concluded that such initiatives presented risks for the profitability and stability of Belgian credit institutions. The governor explained the Bank's opinion at a hearing before the finance committee of the Federal Parliament.

#### The new State note

Over the summer, the finance minister decided to put pressure on banks to raise their interest rates by issuing a one-year State note that benefited from advantageous tax treatment. The Bank's opinion on this note was also sought. Belgians subscribed massively, which led to a sharp fall in household bank deposits. The Bank, in its capacity as the supervisory authority, monitored the situation closely. Both the governor and the vice-governor gave interviews on the subject.

Behind the scenes, the Bank's Financial Markets Department played a key role in issuance of the State note. The Payments and Securities Department, for example, created a bond in NBB-SSS, the Bank's central securities depository. The Front Office closely monitored the participation of certain banks in shortand longer-term refinancing operations. The Financial Markets Department also kept a watchful eye on liquidity standards between payment platforms and answered questions from banks on lending facilities. The Back Office examined the effects of the liquidity provided by monetary policy on collateral (i.e. securities deposited by banks borrowing from the central bank). Finally, CASPER, the Bank's application that makes payments and manages the government's accounts, made daily entries and checked the balance at the end of each day of issuance.

## The impact of rising interest rates on payment defaults

A rise in interest rates on mortgages or consumer credit can impact households' ability to pay back their loans, especially if they have borrowed at variable interest rates and now face higher repayment costs. The Bank's Individual Credit Register records all loans extended by financial institutions in Belgium,

including those granted to businesses. If a loan is not repaid, the lender is obliged to notify the Bank, which will result in the borrower being placed on the blacklist of bad debtors. Monthly statistics are compiled based on the information recorded in the register. The Bank therefore has a very precise idea of the number of defaulting debtors in the country and can quickly assess whether a rise in interest rates on loans is putting Belgian households or businesses in financial difficulty. The good news is that this was not the case in 2023. As three quarters of mortgages in Belgium are fixed rate, the impact of the ECB's interest rate hikes has been limited. The number of defaults actually fell slightly last year. These statistics and more information can be found on the Central Credit Register pages on the Bank's website.

#### **Conferences and debates on inflation**

The Communications Department helped organise several debates and conferences on the subject of inflation and interest rates in 2023. The Bank's experts spoke on subjects such as the repercussions of inflation and Belgian wage indexation on the competitiveness of Belgian firms, the impact of inflation on businesses and households, inflation and its effects on purchasing power, and the risk of recession caused by the tightening of monetary policy.

# Continued implementation of the Bank's Strategy 2025 and the development of a prudential strategy

## Strategy 2025 and its follow-up: "Ability to execute change"

Faced with a host of challenges, the Bank launched a number of cross-cutting projects. Given their number, it was decided to favour an ad hoc or project-based approach, without losing sight of the need to make the Bank more agile in the face of a rapidly changing world.

## Efficiency, cost and performance management

The Bank faces significant workforce challenges, with around 30% of its staff set to retire in the next few years. While this represents a challenge, it is also a key factor in increasing the Bank's overall efficiency. Each department is responsible for identifying and launching a series of efficiency-enhancing initiatives to provide budget headroom.

A new performance management dashboard will be launched in 2024, aimed in particular at senior management. The tool will provide new indicators on the

Bank's recurring activities (e.g. supervision, economic analyses) as well as on cross-cutting functions (HR, finance, risk management). These indicators will be monitored on an annual basis. The new dashboard will complement the existing reports drawn up by various departments and services, as well as the dashboard used to implement the Bank's Strategy 2025.

These initiatives are designed not only to meet the challenges of mass retirement but also to modernise and optimise processes, thereby creating opportunities for long-term efficiency gains across the organisation.

## Finance and Strategy Department

The Finance and Strategy Department provides cross-cutting support to the Bank's stakeholders on financial information and management.

Its role goes beyond financial management and extends to providing senior management, departments and services with the methods, tools and resources they need to establish and implement strategy, stimulate innovation and increase management efficiency.

The department is also responsible for corporate accounting and the administrative handling of all

purchases.



## The midpoint in implementation of the strategic plan

The Bank aims to be a modern central bank at the service of society and at the heart of the Eurosystem. To realise this ambition, it devised a strategy for 2025 focused on four missions and three strategic objectives which it intends to achieve through 12 themes.



2023 is the midpoint of the Strategy 2025. In implementing this strategy, the Bank faces four major challenges:

- 1. The retirement of more than 25 % of its workforce by 2025.
- 2. The standardisation and digitalisation of internal processes.
- 3. A series of **crises and a rapidly changing environment** (flooding in Wallonia, the Ukraine crisis, high inflation, etc.).
- 4. The need to clearly delineate **the Bank's public advisory role**, as its advice and expertise are increasingly being sought on various subjects that are sometimes far removed from its core missions.

## Given these challenges, how has the strategy been implemented thus far and what are the results?

Twice a year, the strategy team organises a strategic review for the Board of Directors, senior management and those responsible for the twelve cross-cutting themes and three of the four strategic missions (monetary policy is the responsibility of the ECB).

Halfway through the strategic plan, steady progress has been made on the various projects. Of the 311 actions undertaken, 39 % have been completed and 45 % are in progress. It should be noted that, compared with 2022, actions relating to prudential supervision have been added following the completion by the prudential departments of their strategic plan.

At the same time, a number of initiatives have been launched, including a business architecture project aimed at describing the Bank's key activities and compiling an inventory of over 700 underlying processes. The next strategic reviews are scheduled for mid-June and early October 2024. The aim will be to take stock of what has been achieved thus far and what remains to be done, before looking ahead to the next challenges.



#### Under the banner of innovation

Innovation is one of the 12 themes of the Strategy 2025. The aim is to strengthen the Bank's relevance, efficiency and social responsibility. Convinced of the need to increase cooperation between the Bank's various departments and their commitment to innovation, the Board of Directors approved at the start of the year an action plan consolidating the ideas and proposals of each entity.

#### The Innovation Board

A strategic body composed of key members from all of the Bank's departments, the Innovation Board, which was set up in 2022, continued to guide and spur innovation efforts throughout the year. The constant support of its Steering Committee, whose members are the innovation officer, the head of the IT department, the chief data officer (CDO) and the project portfolio manager, was essential in ensuring that initiatives were aligned with strategic objectives.

One of this year's new developments was the creation of an "ideation room", an environment dedicated to creativity. A wide range of sessions was organised there, from simple brainstorming to project development and look-back exercises. This new space is intended to ensure and optimise collective stimulation and creativity.

## Putting innovation to the test

The commitment to innovation has been consolidated within the Bank through a case-based approach to allow new technologies to be tested, explore innovative ways of working and adopt forward-thinking solutions.

The "innovation intake funnel", introduced in 2022, confirmed its central role in formalising the process to identify, evaluate, launch and document innovative cases.

An "initiative hub" has been set up to optimise the sharing of innovative ideas and proposals within the Bank. It ensures comprehensive follow-up of the project development process, from preliminary analysis to development and final deployment. This approach has strengthened the Bank's ability to manage from start to finish the lifecycle of innovative projects, thus fostering a dynamic culture of innovation.

#### Several tools were tested:

- A supervision and inspection method using advanced data analysis techniques for prudential supervision.
- IoT (Internet of Things) solutions to test, understand and analyse systems likely to be used within



the Bank to optimise energy consumption, monitor the use of workspaces, etc.

- Production of a chatbot to answer questions from external users of the Central Balance Sheet Office.
- An automated solution for financial market payments that allows the processing time for ISIN code generation to be reduced and increases transaction quality.

Faced with the technological revolution embodied by the advent of ChatGPT and the expansion of LLM (large language model) solutions, an initiative was launched to:

 Demystify technology, its scope of applications and constantly evolving functionalities

INNOVATION WEEK INNOVATION WEE

- Test technology by developing use cases; a first case is being developed for the prudential services, to facilitate the search for decrees, laws, regulations and circulars.
- Put in place the infrastructure and environment needed to support technology, while assessing IT impacts and associated risks.
- Define a legal framework for the use of these technologies within the Bank, to ensure that generative AI is used appropriately, protect confidential data and avoid security breaches

#### Communication and a culture of innovation

Special efforts have been made to promote a spirit of innovation within the Bank:

- The Innovation Forum, set up in 2022, has been enriched through the sharing of new trends as well as by reports, conferences, use cases and so on. All of these developments are covered in a regular newsletter sent to staff members.
- "Design thinking" sessions have enabled certain departments to analyse their internal challenges and develop innovative solutions, some of which are currently being implemented.
- An innovation week enabled over 400 staff members to immerse themselves in the world of innovation, with a particular focus on generative artificial intelligence, data visualisation, blockchain, decentralised finance, the metaverse and their impact on the Bank's work.

## **Outside the Bank**

The Bank works closely with Belgian and international institutional partners (Belgian universities, the Eurosystem's Single Supervisory Mechanism, the Bank for International Settlements' Innovation Forum). Collaboration also continued with other central banks (De Nederlandsche Bank, the Banque de France and the European Central Bank, among others). These partnerships encourage the exchange of knowledge, co-innovation and the sharing of best practices in the financial sector.

## Digital, influential and efficient: the new prudential strategy

Against the backdrop of an ever-changing financial landscape, the National Bank of Belgium developed a prudential strategy in 2023 aimed at maintaining its relevance in the years ahead and fulfilling its societal missions.

This strategy is based on three pillars.



The Bank intends to meet a series of challenges in its supervisory role and has set itself ambitious targets for the coming years. This vision reflects the Bank's commitment to excellence and has been translated into a roadmap designed to ensure its relevance and efficiency in a constantly evolving financial sector.



The roadmap sets out four ambitions:

#### 1. Simple digital interaction

By adopting smooth and efficient digital processes, supervisors will be able to focus on their core tasks, so as to improve regulatory compliance monitoring and risk assessment. This will also promote a more streamlined operating environment both internally and externally.

Ambition: Supervisory teams will carry out their activities with a focus on digitalised processes, ensuring efficient and effective interaction with supervised entities.

## 2. Analytics to support supervisors

Leveraging big data and advanced algorithms will enable supervisory teams to conduct more accurate, timely and thorough risk assessments. This data-driven approach will comply with regulatory requirements, enabling supervisors to make quick and informed decisions.

Ambition: Supervisory teams will harness the power of analytical tools to enhance risk assessment capabilities, ensuring a proactive and agile response to emerging challenges.

## 3. Embedding the NBB in the suptech ecosystem

The Bank's teams will play a central role in the digitalisation of supervision through close cooperation with other national competent authorities (NCAs) and the Single Supervisory Mechanism (SSM). This approach positions the Bank at the heart of technological advances in supervision.

Ambition: The Bank will actively contribute to the development of digital and analytical solutions, fostering collaboration with NCAs and the SSM to shape the future of supervision technologies.

#### 4. Staying up to speed with financial sector developments

Anticipating and proactively responding to the challenges arising from fintech developments is a priority. The Bank's supervisory teams will adopt a proactive stance to interpreting regulations in the context of new business and technological models, ensuring that regulatory frameworks are aligned with developments in the sector.

Ambition: Supervisory teams will adopt a proactive stance to the interpretation of regulations, aligning them with fintech developments to ensure the stability and integrity of the financial sector.



## Pillar 2 - Being an influential supervisor

The Bank aims to play an active role in the Belgian financial sector, while strengthening dialogue with the entities it supervises, including by:

- 1. Supporting the strategic objectives of the sectors it supervises and promoting them with key partners. This involves encouraging initiatives considered strategic in order to make the financial ecosystem more robust.
- 2. Maintaining dialogue with supervised sectors on the subject of regulations and their implementation. One focus area will be support for innovative fintech initiatives (suptech, RegTech, insurtech, PayTech, etc.).

Various initiatives will be launched in order to implement this strategy. These include developing collaborations with the fintech sector and helping link strategic developments in the sector to societal concerns.



#### Pillar 3 – Being an efficient supervisor

The aim is to improve the Bank's performance by making new, leaner ways of working the norm across the organisation and digitising internal processes and relations with supervised institutions. Internally, the objective is also to develop mechanisms to facilitate the convergence of action plans in accordance with observed risks as well as with the Bank's missions and values. A transformation programme has been put in place to this end.

In conclusion, the Bank's commitment to a sustainable digital strategy reflects its ambition for excellence and innovation and its desire to remain a relevant partner in the constantly evolving financial ecosystem.



## Furthering knowledge to inform public debate

The fight against inflation triggered by the upheavals of the post-Covid-19 economic recovery and Russia's invasion of Ukraine continued to dominate the national and international economic landscape in 2023.

In this context, and building on its work in 2022, the ECB raised rates seven times during the year, pushing them to their highest level since the single currency came into being in January 1999. This more restrictive monetary policy stance was deemed necessary to guarantee price stability in the euro area, the Eurosystem's primary objective.

As a member of the ECB Governing Council, Governor Pierre Wunsch participates extensively in the Eurosystem's monetary policy decision-making. To this end, he draws on the detailed analyses of economic and financial developments in the euro area carried out by the Bank's Economics and Research Department.



## A higher interest rate environment

In addition to the economic analyses and cutting-edge research that underpin monetary policy decisions, several studies carried out by the department focused on the economic consequences of an environment marked by higher inflation and higher interest rates.

**Economics and Research Department** 

The Economics and Research Department consists of various teams dedicated to macroeconomic analysis and research. The fifty or so economists who work in this department boast expertise covering a wide range of subjects, from monetary and fiscal policy to labour economics, the real economy, competitiveness, financial economics, international economics and macroeconomic modelling.

On the one hand, the Bank's economists are responsible for producing detailed analyses leading to economic policy recommendations. Their work thus contributes to the shaping of the Bank's stance on monetary and macroprudential policy, public finances and structural reforms.

In addition, they inform the public debate on economic and financial developments in order to highlight economic policy choices and promote coherent decision-making.

Lastly, they ensure their work is communicated as clearly as possible to the general public. In this way, they provide citizens with information about the country's economic developments and the challenges that lie ahead.



An article published in the Bank's *Economic Review* showed that, despite the strong inflationary surge that hit the euro area, inflation expectations for the medium and long term (five or ten years) remained close to the ECB's 2% target. In other words, the rapid rise in inflation since 2021 was largely seen as temporary, not least because the ECB's credibility in maintaining price stability remained strong.

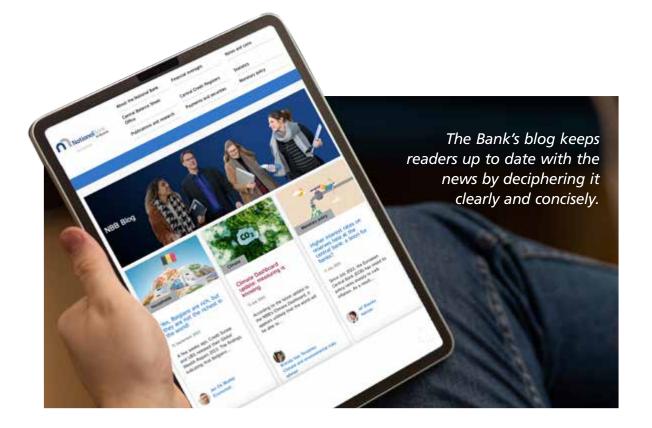
Another article demonstrated that the monetary policy tightening orchestrated by the Eurosystem between July 2022 and September 2023 had been transmitted fairly evenly across euro area countries. As a result, it did not rekindle concerns over the possible splintering of the euro area.

Other studies looked at firm-level behaviour in this particular economic context. One analysis found that price increases essentially reflected rises in input costs and that, in general, firms had not been taking advantage of the inflationary climate to pad their profit margins to the detriment of consumers. Another study shed light on the fact that the much higher level of energy inflation seen in Belgium in 2022, compared with Germany, was partly due to electricity price formation mechanisms. It also noted a link with the measure of inflation being used, which in Belgium reflects only the prices of new electricity contracts. Other research highlighted the effects of inflation on public finances, such as a temporary fall in the debt-to-GDP ratio.

#### A communications push

To make its work more accessible to the general public, the NBB has expanded its communication channels in recent years. The Economics and Research Department is resolutely committed to this objective, through its numerous contributions to the Bank's blog and the production of webinars and short videos, among other activities.

In 2023, the department produced blog posts on interest rate trends; the winner of the 2023 Nobel Prize in Economics, Claudia Goldin; Belgian household wealth; climate-related issues; and inflation. These publications are intended to be more topical and "accessible" than the department's other output, such as articles for the Economic Review and working papers, and help to clearly and concisely decipher current events.



Topics covered by webinars included the impact of high inflation on households and businesses, the economic consequences of artificial intelligence, and the economic strengths of Brussels compared with other European metropolitan regions. Webinars are regularly produced in collaboration with other organisations and institutions.

## **Key societal challenges**

Taking a step back from current economic and financial developments, the Economics and Research Department examined a number of major socio-economic challenges affecting Belgium: an ageing population, climate change, inequality, and the digital and energy transitions. These issues were identified as priorities in the Bank's Strategy 2025.

For the fifth time, the NBB coordinated the Belgian wave of the European Household Finance and Consumption Survey, which provides microeconomic data on the financial situation of households.

Finally, for the second year running, the NBB produced a climate dashboard, gathering information and indicators relating to climate change and sustainable finance. Through this initiative, the Bank aims to provide the general public with more information on the impact for the economy and the financial system of climate change and the transition to net zero.

## Deglobalisation, decarbonisation and digitalisation

Following the 2022 biannual research conference on the implications of household heterogeneity for economic policy, the Economics and Research Department is preparing for its next such conference in October 2024, which will focus on deglobalisation, decarbonisation and digitalisation. This event will look specifically at the impact of these phenomena on prices, profit margins and business productivity. Twelve research projects, which are being conducted with colleagues from other institutions and with academic researchers, have been selected for the conference, following a call for proposals by the Bank.

Improving information on the economic and financial consequences of climate change and the energy transition





# "CLIMATE CHANGE TAKES CENTRE STAGE AT CENTRAL BANKS"

Thomas STOERK / Climate economist in the Economics and Research Department

Thomas Stoerk is a climate economist in the Economics and Research Department of the National Bank of Belgium. In this capacity, he draws on a vast network that includes European central banks, international institutions and experts from academia, both in Belgium and at the European and global levels.

Thomas Stoerk: "I joined the Bank in 2021 as a climate economist. It's a new role at the Bank, one that shows that the issue of climate change has become very topical.

I advise colleagues from my department as well as from other departments who need advice on climate-related issues, in consultation with my colleagues from the Climate Hub (see below). Sometimes I work directly for Governor Wunsch who is very plugged into climate-related issues."

## A wealth of expertise

"The Bank has set up a Climate Hub, which I cochair with my colleague Brenda Van Tendeloo from the Financial Stability, AML Supervision and Banking Prudential Policy Department. The hub brings together around forty colleagues from different departments with a wide range of skills. The aim is to establish expertise in the field and exchange information. To this end, each member is active in various networks, within the European System of Central Banks (ESCB) or international institutions, e.g. the IMF, the European Commission, the OECD or academia. The result is a centre of excellence, capable of responding as quickly as possible to any question relating to climate change."

## Wide-ranging collaboration

"My work is based on research carried out by my colleagues, on the vast quantities of data collected by the Bank – which is a true statistical centre – as well as on collaboration with various recognised specialists, notably from the London School of Economics, Pompeo Fabra University, Duke University, Yale University, etc. And I would be remiss if I did not mention Mirabelle Muûls, Associate Professor at Imperial College London, with whom I have the pleasure of working regularly in her capacity as a Climate Research Fellow at the Bank. These various forms of collaboration enable us to carry out analyses based on different methodologies."



## Independent expertise

"The various parties making climate-related policy recommendations generally draw on their own analyses which, by definition, are not independent. Central banks play an important role in this regard by developing independent expertise. They are well positioned to formulate proposals to strengthen climate policies at the EU level, as we have seen in the area of carbon pricing."

## Central banks and climate change

"Climate-related risks are a matter of concern for all European central banks. In the long term, it is clear that climate change will have a pronounced impact on the economy. In the short and medium term, central banks are primarily focused on the cost of decarbonisation. They therefore need to develop methodologies to quantify its impact, particularly on price stability and the financial system – which is fully within their remit. This is how the European System Climate Change Forum, which ensures consistency in the actions carried out by its members, came into being. I represent the NBB in the Forum, along with my colleague Brenda Van Tenderloo from the Climate Hub."

### An optimistic note

"I'll end on an optimistic note: central banks are moving in the right direction, even if their role is essentially confined to research. Given the measures adopted at European level, I also believe that the climate transition is on the right track, but we must not lose sight of the fact that it is a dynamic process which needs to be constantly reassessed. There will always be work to do to ensure coherent and effective climate policy!"

"Central banks play an important role by developing independent climate-related expertise."

# Monitoring turbulence in the global banking system

In March and April 2023, the global financial system was shaken by turbulence in the banking sector. Tighter monetary policy and higher interest rates increased banks' funding costs and reduced the market value of their long-term fixed-rate assets. As a result, interest rate, liquidity and other risks materialised at certain institutions with specific business models, and the financial markets became increasingly nervous.

To avoid wider financial instability, the US authorities had to take action with regard to three medium-sized banks: Silicon Valley Bank, Signature Bank and First Republic Bank. The systemically important Swiss bank Credit Suisse also ran into serious problems, which led to its takeover by UBS. The prudential section of the Bank's Annual Report looks in detail at the causes and consequences of this financial turmoil.1

## **Tighter controls**

This turbulence in the banking sector had repercussions beyond the borders of the United States and Switzerland. Consequently, the NBB, in its capacity as the macroprudential authority responsible for overseeing financial stability, the microprudential authority or the financial supervisor, took the following measures, among others, to ensure close monitoring of the situation and to assess the consequences for the Belgian financial system.

## Market and sector surveillance

The Bank intensified its surveillance of developments on the financial markets and among financial actors. The potential impact of major events on the financial sector was documented and assessed.

1 NBB Annual Report 2023, p. 245.

## Horizontal analyses

The sensitivities and vulnerabilities of Belgian banks were the focus of in-depth analyses, particularly with regard to the specific risks that had put foreign banks in difficulty. These analyses included an assessment of Belgian banks' exposure to the institutions concerned, the composition and evolution of their

## Prudential supervision and resolution

## Financial Stability, AML Supervision and Banking Prudential Policy Department

This department ensures a wide range of prudential missions and tasks:

- The detection of risks liable to jeopardise the stability of the financial sector (financial stability) and the mitigation of these risks through the use of appropriate macroprudential policy instruments.
- Preventive monitoring of systems to combat money laundering and the financing of terrorism.
  - The definition and development, at international level, of prudential standards for banks and stockbroking firms and their implementation at national level.

deposit base, the proportion of deposits covered by the deposit guarantee scheme, the size and composition of liquidity buffers, certain components of capital buffers, and the specific sensitivities of interest rate risk management.

Analysis of the impact on financial market infrastructures

An in-depth analysis of the impact of developments on Belgian financial market infrastructures was also carried out.

 Frequent interaction with banks and financial market infrastructures

In this context, the Bank consulted Belgian banks and financial market infrastructures regularly, in order to monitor closely the impact of developments and, among other things, the risks and liquidity positions of these institutions.

## Intensive cooperation and communication

International cooperation is crucial in times of financial turbulence. As such, in its capacity as the supervisor of major Belgian banks, the NBB maintained contacts with other authorities, including the ECB and the Single Supervisory Mechanism (SSM). It was also in close contact with international bodies such as the European Banking Authority (EBA) and the Basel Committee on Banking Supervision, in order to exchange information and monitor the situation at international level.

Through regular communication with the cabinet of the finance minister, the NBB ensured that the government was kept informed of developments and the possible implications for the Belgian financial system, while the IMF, which was carrying out its periodic review of the Belgian financial sector as part of the Financial Sector Assessment Programme, was also kept up to speed.

Recent events underscored the need for a resilient banking system, supported by an effective governance structure, sound risk management, robust regulation and rigorous financial supervision. Crossborder cooperation remains essential, while central banks and supervisory authorities must adapt in order to be able to act quickly, step up their monitoring of financial markets and institutions and, where necessary, take crisis measures.

## **Analysis of the Belgian fintech sector**

In 2023, the National Bank conducted a study of the Belgian fintech sector, which involved extensive interaction with both national financial authorities and players in the field. Various services and departments from across the Bank contributed to this exercise, with the prudential departments and the Economics and Research Department pooling their expertise.

In 2023, fintech was identified as a possible strategic sector by the federal government. Belgium has several major advantages in this respect, including the presence of key structural players on its territory and the advanced degree of digitalisation of the financial products and services offered by Belgian banks. The federal government wished to identify the potential of the sector for the Belgian economy and any levers that could be used to strengthen Belgium's position in the global fintech market and optimise the conditions to carry out fintech activities domestically. The Bank's study entailed both quantitative and qualitative analyses.

## The quantitative dimension: mapping the sector

In quantitative terms, the mapping of the sector was based on a new database integrating various sources: the National Bank, public administrations, and the private sector.

A taxonomy of fintech products and services available on the market was drawn up prior to classifying the companies identified. Data from the Central Balance Sheet Office were used to estimate the value added and employment generated by the sector, as well as the financial profile of fintech firms.

The resulting mapping identified two main segments of the ecosystem:

 fintechs offering business-to-business (B2B) financial solutions, particularly to the financial sector (Tech4Fin) and  fintechs active in the payments segment, partly reflecting the presence of leading international players in Belgium.

## The qualitative dimension: an innovative and diversified ecosystem that would benefit from improved connectivity

A qualitative analysis was also carried out through interviews with representatives from the sector. The study covered various topics, including market structure, access to financial, human and technological resources, and the environment underpinning the fintech ecosystem.

These exchanges initially involved Belgian and international financial institutions with which the Bank maintains regular dialogue as part of its prudential remit (e.g. banks, insurance companies, payment institutions). However, as the sector is broader, the scope was extended to other key actors, such as

start-ups, incubators, venture capital funds and other investors.

It appears that the Belgian ecosystem benefits from a pool of talent and cutting-edge technological skills, due to the quality of Belgian scientific research and its specialisation in promising areas for the future development of digitalised financial services (i.e. cybersecurity, artificial intelligence, quantum computing, etc.).

Nevertheless, the scaling-up of start-ups to the growth and acceleration phase remains complicated. More could therefore be done to match start-ups with private and public funds that suit their profile.

Lastly, regular exchanges and consultation with the FSMA, as well as meetings with the cabinets of several government ministers, were organised in line with a roadmap and predetermined timetable. The results of the study will be published by the Bank in 2024.



# The National Bank plays a central role in the IMF's five-yearly assessment

According to the findings of the five-yearly IMF assessment of the Belgian financial system carried out in 2023, the Belgian financial sector proved resilient to the shocks of recent years and remains well capitalised and profitable. The Bank played an important coordinating role in this exercise and was satisfied with the results.

In 2023, the IMF assessed the Belgian financial sector and the quality of the supervision thereof. This exercise formed part of the IMF's Financial Sector Assessment Program (FSAP), which aims to assess the robustness of the local financial sector and provide countries and supervisory authorities with recommendations on how they should operate, particularly in the event of a financial crisis. In this context, the Bank presented its analyses and concerns to the IMF. As such, this was more of a collaborative exercise than a crisis review or simulation. The FSAP is in addition to the IMF's annual Article IV consultations, which focus on economic and fiscal policy.

The FSAP entails an in-depth examination of a country, focusing on financial stability, specifically the local financial sector, the statutory framework, the institutional framework and how supervision is exercised in practice. The Bank, in its capacity as the country's financial system supervisor, was closely involved and played a coordinating role.

Belgium is one of more than 30 countries that are required to undergo an FSAP every five years. The last such assessment took place in 2017. Belgium falls into this group due to the fact that it is home to a relatively large financial sector and important financial market infrastructures (such as Swift and Euroclear), meaning domestic problems could have repercussions for the global financial system.



## Three pillars

The FSAP is based on three pillars which together provide an overview of the general state of the financial system, the supervision thereof and its resilience in the event of a crisis.



### How is the financial system faring?

IMF experts use so-called stress tests to assess the health and resilience of the financial system. They also examine the main risks to financial stability.



#### International standards and best practices

The second pillar of the FSAP includes an evaluation of the prudential framework and policy, as well as (inter)national supervision.



#### Crisis management and safety nets

The third and final pillar of the FSAP entails an assessment of local financial safety nets and crisis management.

#### A dual role

The Bank acted as the in-country point of contact for the IMF and Belgian stakeholders and helped coordinate the organisation of some 200 face-to-face meetings. In practice, the entire process lasted for more than a year, from the initial phase in September 2022 to publication of the results in December 2023. The review also included a virtual exploratory mission at the end of 2022 and two in-person three-week missions to Belgium and Frankfurt in March and June 2023.

At the end of this process, the IMF delegation sent its provisional conclusions to the Belgian and European authorities and drew up a detailed assessment of the stability of the Belgian financial system.

## Challenges and recommendations

According to the IMF's final report, the Belgian financial sector proved resilient to the shocks of recent years and remains well capitalised and profitable. Belgian banks, insurance companies and investment funds are also capable of absorbing severe macro-financial risks and shocks.

Alongside this generally positive assessment, the IMF pointed to a number of challenges that need to be addressed. In its recommendations, it calls specifically for greater alignment of the Bank's powers to set macroprudential policy with its financial stability mandate and points to possible improvements to financial sector supervision and financial crisis management in Belgium.



The NBB's prudential departments will now examine the sixty or so recommendations related to the supervisory framework and, if they deem them feasible and necessary, will implement them in the coming years. The IMF will address these recommendations again during Belgium's annual Article IV consultation and assess the progress made by the Bank in implementing them, prior to carrying out another in-depth review during the next FSAP in five years' time.

## The National Bank at the centre of cooperation

The assessment was overseen by the Bank's Financial Stability, AML Supervision and Banking Prudential Policy Department and International and Eurosystem Coordination Department. The prudential services, Legal Service, Economics and Research Department and Resolution Unit also provided support. Other organisations were also involved in the review:

- Belgian authorities: the FSMA, the FPS Finance, the cabinet of the finance minister and the Guarantee Fund;
- European authorities: the ESM and the ECB.



# Creation of a centre of expertise for crisis management in the context of banking supervision

In the euro area, banking supervision is ensured by the SSM, which is based on cooperation between the ECB and the national supervisory authorities. The ECB directly supervises all significant institutions (SIs), with the assistance of the national supervisory authorities.

In 2023, the Bank participated in nine joint supervisory teams (JSTs), which carry out off-site supervision of significant Belgian institutions under the direction of the ECB. In addition, Belgian inspectors are involved

in the on-site supervision of Belgian SIs, as well as other SIs based in the euro area, through cross-border supervisory missions.

The national supervisory authorities continue to supervise less significant institutions (LSIs) directly. However, the ECB reserves the right to resume direct supervision to ensure the consistent application of supervisory standards.

## Prudential supervision and resolution

## Department for the Prudential Supervision of Banks and Stockbroking Firms

As the national supervisory authority, the Bank is responsible for the micro-prudential supervision of banks in the context of the Single Supervisory Mechanism (SSM) as well as of stockbroking firms. The department for the Prudential Supervision of Banks and Stockbroking Firms carries out this supervisory work both off-site and onsite and also examines internal models, with a particular focus on solvency, liquidity, the business model and governance.



## 2023: creation of a centre of expertise for crisis management

In 2023, the Board of Directors reviewed the Bank's strategy in terms of its prudential supervisory powers.

This evaluation revealed that it is essential to pool knowledge and expertise more effectively in the surveillance and prudential oversight of financial institutions subject to enhanced supervision. This applies to both the substantive and procedural aspects of such supervision.

Financial institutions can run into difficulties for a wide variety of reasons: problems relating to solvency, liquidity or profitability, but also concerning their organisation, management and administration, internal controls, fraud or compliance with statutory and regulatory provisions.

In such situations, the supervisory authority has a wide range of powers allowing it to act quickly and thoroughly. In this respect, it is essential not only for the supervisory authority to have direct access to operational resources but also to be able to support its actions with in-depth and reliable financial and legal analyses.

## A wide range of tasks

- Preparing protocols for cooperation with relevant departments within the Bank, such as the Resolution Unit and the Operational Risk Management Unit (payments, liquidation, etc.).
- Drafting a crisis management manual describing processes, the development of operational scenarios, governance within the Bank, recourse to external support and the establishment of contact lists, the policy on post-mortem analysis, etc.
- Establishing and maintaining contacts with the relevant Belgian, foreign and international competent authorities.
- Providing crisis management training.
- Taking part in testing exercises.
- Acting as a point of contact for external parties.
- Providing operational and technical support to teams dealing with the various aspects of crisis management.

To support the centre of expertise in its initial phase, the Board of Directors has assigned a legal position to the department for a temporary period (of two years).

## The choice of a single centre of expertise

While other supervisors have chosen to entrust the oversight of institutions subject to enhanced supervision to specific departments, the Board of Directors decided to create a single centre of expertise. Its mission is to enhance operational preparedness for crisis management, to establish a crisis ecosystem that builds strategic alliances with various stakeholders inside and outside the Bank, and to bring together the knowledge, experience and documentation needed to deal effectively with complex crises.

The centre of expertise will provide support to the operational supervisory teams when an institution under their supervision encounters serious problems that could lead to the restriction or even withdrawal of the institution's licence and/or jeopardise compliance with its obligations. In addition, the centre will serve as a link between prudential supervision and the resolution process in the event of the failure or likely failure of a credit institution that requires the intervention of the resolution authority.

In order to implement the decision of the Board of Directors, a team from the Prudential Supervision of Banks and Stockbroking Firms Department was entrusted with drafting terms of reference and an action plan for the centre of expertise.



## Artificial intelligence and prudential supervision: "If it works, it works!"

Given the increasing use of artificial intelligence in commercial banking, the Bank is developing its own tools to make inspections more efficient.

The Bank is increasingly developing Al-based tools for use by prudential supervisors, both to analyse the credit risks of commercial banks and to detect atypical behaviour or transactions as part of AML inspections. The experience gained not only strengthens supervisory activities but also allows supervisors to better understand commercial banks' business models.

## How does an approach based on artificial intelligence (AI) differ from traditional models?

Vincent Sapin, head of on-site inspectors for internal models: "The traditional approach relies on simpler, more comprehensible models, which generally focus on a limited number of variables. Al-based models, on the other hand, place the emphasis on predictive performance, sometimes to the detriment of transparency. They are based on large quantities of data, which requires a great deal of computing power. The pragmatic approach — if it works, it works — allows the use of unconventional data, such as text or images from social media."

## Why use AI?

"Because these complex models are often more efficient and commercial banks are using them more and more. As supervisors, we have to be proactive! In addition, the development of such techniques allows us to improve our inspections. We can also become more familiar with the technology and better understand how banks can take advantage of these developments, while mitigating the additional risks associated with these models."

#### But there are two sides to every coin.

"Al provides more accurate predictions, but it doesn't make it possible to determine the criteria on which they are based. This lack of clarity presents certain risks. A model that performs well on average across the whole population could still make biased or unethical decisions, such as refusing loan applications on the basis of an applicant's gender or ethnic origin, without prior explicit consideration of these criteria. Due to the complexity of the model, it may be difficult to identify the grounds on which the refusal is based, which can give rise to reputational risks.



Another example is what we call 'model deviation', that is performance degradation after deployment. In principle, an expert could remedy this. But how can you improve a model if you don't understand how it works? In other words, how can a risk manager validate the use of a model that they don't fully understand? In this respect, it is important to stress that such problems also apply to conventional models, to a certain extent. This is also why we are working with our colleague Kris Martens (head of off-site supervision) to develop supervisory expectations for the use of these models by banks."

## Who is responsible for these developments?

"These developments are put into practice by teams of on-site and off-site supervisors, with the support of the Bank's Data Science Centre and Innovation Board. This cooperation between supervisors and experts from outside banking supervision fosters the creation of synergies and enables rapid progress to be made."



## What does ChatGPT have to say?

"The use of artificial intelligence raises ethical issues, particularly with regard to the protection of privacy and liability in the event of harm caused by algorithmic decisions. Banks must use it responsibly and transparently, ensuring that decisions are fair and impartial."

## Do you work with other supervisory authorities?

"Technology is evolving rapidly, so it's important to keep abreast of progress within the supervisory community. This leads to enriching exchanges, including outside the SSM. With this in mind, representatives from the Bank's various prudential departments meet periodically within the NBB SupTech team. This enables them to stay informed of new trends in the various areas of supervision and to respond to staff needs. One result of this is the development of a chatbot project on prudential regulation, which is currently the subject of a feasibility study."

# Prudential supervision of insurance and reinsurance companies in uncertain times

Throughout the year, the Bank closely monitored the impact of interest rate fluctuations, inflation and developments on the financial markets on the insurance and reinsurance companies under its supervision.

rate increases and/or higher attachment points. In parallel, new reinsurance clauses have emerged. The Bank monitored these developments in 2023 and will continue to do so in 2024.

## Rising interest rates have impacted insurers' business model

On the one hand, life insurance companies are facing greater liquidity risk as higher interest rates could lead some households to surrender (or let lapse) life insurance contracts concluded at low rates in order to switch to investments that have grown more attractive, at a time when the value of certain assets held in the investment portfolio of insurance companies is deteriorating. Conversely, higher interest rates allow insurance companies to offer higher rates on new guaranteed-rate life insurance contracts and to reinvest in assets with higher returns. Companies regularly touched on these developments and their impact on asset-liability management in periodic interviews carried out by the Bank.

## The impact of inflation

Inflation impacts not only companies' overhead but also the assessment of claims and, gradually, the (re) pricing of premiums in certain sectors. Monitoring by the Bank suggests that insurance companies absorbed the negative impact of inflation relatively well. The Bank also selected several companies for on-site inspections focused on this subject, in order to identify, among other things, best practices in the management of inflation-related risk by the insurance sector.

### **Reinsurance conditions**

Ongoing uncertainty, coupled with climate change, has also had an impact on reinsurance terms and conditions, forcing companies to accept substantial

## Interaction with key players

Over the past year, the Bank stepped up its interaction with various key players in prudential supervision to significantly strengthen its approach to complex files.

## Prudential supervision and resolution

## Department responsible for the Prudential Supervision of Insurance and Reinsurance Companies

This department oversees Belgian insurance and reinsurance companies in order to protect the rights of policyholders and guarantee the continuity of insurance companies. It ensures that these companies, whether small players, niche actors or large insurers with an international presence, comply with regulatory provisions and manage their risks soundly and prudently.



Depending on the case, these parties included independent directors,<sup>1</sup> other supervisors in the framework of supervisory colleges, and accredited auditors.

As in previous years, a large number of issues concerning subcontracting and document retention, as well as portfolio transfers, were the subject of operational inspections at insurance companies. Particular attention was also paid to the adequacy of life and non-life technical provisions, the preferential rights of insurance creditors, perpetual inventories, and cyber risks.

Lastly, in anticipation of imminent legislative changes affecting systemically important companies or groups, the Bank proactively initiated discussions on the development of pre-emptive recovery plans. It also participated in relevant discussions within the crisis management groups (CMGs) of insurance companies.

## **Solvency II Directive**

In 2023, progress was made on revision of the Solvency II Directive. The Bank's experts in prudential policy for the insurance sector actively supported the Belgian Permanent Representation to the EU in this field.

On 22 September 2021, the European Commission put forward a series of legislative proposals to revise the Solvency II Directive. These were intended to address the shortcomings of the current system and to support the EU's political priorities, such as financing the post-Covid-19 economic recovery, completing the capital markets union, and stimulating investment under the European Green Deal. On 17 June 2022, the Member States agreed on a common approach within the Council of the EU. The European Parliament, in particular the Committee on Economic and Monetary Affairs (ECON), also reached an agreement on 18 July 2023.

On 13 September 2023, the European Parliament confirmed the decision to start inter-institutional negotiations, during which the European Commission, the European Parliament and the Council worked together to resolve key issues. Spain led these discussions



in the second half of 2023, and Belgium took over in the first half of 2024.

The Bank's prudential policy experts supported the Belgian Permanent Representation to the EU in this matter. This support intensified in the second half of 2023, in order to ensure a smooth transition between the Spanish and Belgian EU presidencies. In December, a political agreement was reached on the revision to the directive, under the Spanish presidency. However, the technical aspects of the agreement still need to be finalised under the Belgian presidency by means of a new directive.

<sup>1</sup> Independent directors are directors who do not represent the company's shareholders. As such, they provide impartial advice, take an objective view of the company and ensure discipline and a sense of responsibility within the board of directors.

# Trends and developments in payments and the digital euro

## **Payment trends and developments**

Chaired by Director Tim Hermans, the National Retail Payments Committee (NRPC) aims to identify trends and developments in payments, facilitate the exchange of information, and discuss topical issues in this field.

The committee's members are active in various sectors directly involved in retail payments in Belgium. Five sub-groups support the committee in order to inform its discussions and carry out more specific work.

## Back-up payment cards

The number of purchases made using a payment card increases every year in Belgium. Although cash is still used for just under half of all transactions, cards have become an essential part of everyday life. The aim of the back-up payment cards sub-group is to identify those actors whose failure could have a significant impact on the functioning of card payments in Belgium and to examine the solutions that would make it possible to cope with the unavailability of their services.

These solutions are summarised in a "crisis manual" intended for key actors. This is not a contingency plan in the strict sense of the term, but rather an inventory of solutions and procedures that could be put into practice if necessary.

## Central bank digital currencies (CBDC)

The CBDC sub-group monitors the work of the European Central Bank and the Eurosystem with a view to the possible introduction of a digital euro. This project forms the object of a more in-depth article in this report.

#### **Instant payments**

The roll-out of instant payments in the European Union has been slow and uneven across Member States. As a result, the European authorities have proposed legislation aimed at developing this type of payment and stepping up its use in order to make it the new norm.

## Prudential supervision and resolution

## Supervision of Financial Market Infrastructures, Payment Services and Cyber Risks Department

This department is responsible for the prudential supervision of payment institutions and issuers of electronic money, as well as both domestic and international operators of central securities depositories established in Belgium. It also oversees the systems operated by these infrastructures, as well as payment systems, payment schemes and certain critical service providers. The department analyses IT risks as part of surveillance and prudential supervision procedures and works to increase the cyber-awareness and resilience of the most important financial entities.



The European legislative initiative aims to overcome the major obstacles to the introduction of instant payments. To this end, it sets out obligations for payment service providers, limits costs for users, harmonises the verification of compliance with sanctions and, to combat fraud, makes it compulsory to check that the IBAN matches the name of the beneficiary.

This sub-group's work focuses on this initiative and its implications for Belgium, where instant payments account for more than 20% of all transfers.

#### Cash

This sub-group focuses on the accessibility of cash and its status as legal tender.

In terms of access to cash, the high point of 2023 was undoubtedly the agreement reached between the banking sector and the federal government on access to ATMs.

As it is responsible for the circulation and quality of cash in Belgium, the Bank developed a model to measure the accessibility and capacity of the ATM network (see the article on "Cash" in this report). The model is based on a European methodology, refined to take better account of Belgium's high population density.

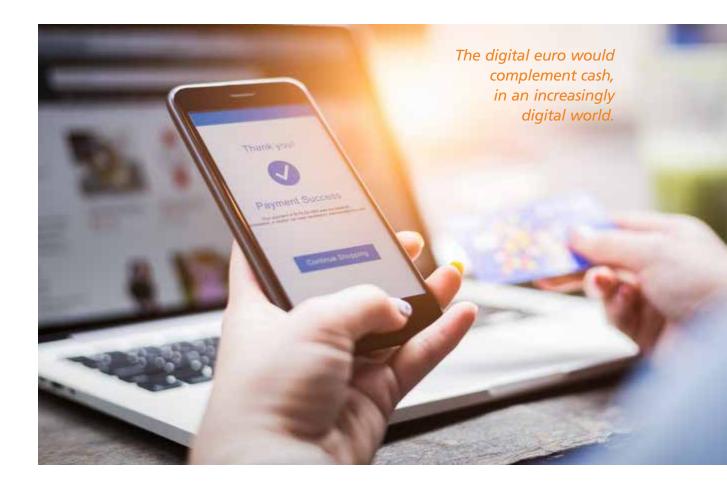
With regard to cash as legal tender, the sub-group follows the European Commission's proposal for a regulation in this area, the aim of which is to ensure that citizens can pay in cash if they wish to do so. The proposed regulation defines the concept of legal tender and sets out the obligations of Member States in terms of acceptance of and access to cash, as well as various organisational and procedural aspects (e.g. the designation of a competent authority, the establishment of indicators and sanctions, the role of the Commission in the event of non-compliance, etc.).

#### **Coins**

This sub-group is chaired by the General Administration of the Treasury (FPS Finance), which is responsible for issuing and financing coins. Its work focuses mainly on the availability of coins in the economy, with specific attention given to shortages of certain coins and the causes thereof, as well as the solutions deployed by the FPS Finance in response to this issue. Overall, the stock of coins in circulation in the country should be sufficient, but coin returns remain too low. In addition, a shortage of raw materials to meet demand is delaying the supply of new coins.

## The digital euro

The National Bank is actively working with the European Central Bank and the other central banks in the euro area to create favourable conditions for the possible introduction of a digital euro.



The first stage of the preparatory phase for a digital euro, which began in November 2023, will be completed in 2025. The aim is to put in place the necessary technical solutions and commercial agreements for the possible issuance of a digital euro. Depending on the results of this first stage and the progress made in the legislative process, the Governing Council will decide whether to proceed to the next stage, i.e. operational preparation for the issuance and rollout of a digital euro.

### A new, independent unit

Since 2020, management of the preparatory phase has been ensured by a number of working groups set up by the ECB, such as the High-Level Task Force (hereinafter the "HLTF") and the Project Steering Group (hereinafter the "PSG"), with which the Bank works closely. The HLTF is responsible for taking major decisions relating to the functionalities and intrinsic features of the digital euro, while the PSG plans and oversees the progress made on the project,

particularly with regard to possible procurement procedures.

It should be noted that the development of the project over the last few years has generated a growing workload. This led, in the summer of 2023, to the approval by the Board of Directors of the creation of a new, independent entity, the Digital Euro and Payments Policy Unit, falling under the authority of Director Hermans. This unit consolidates all activities carried out in this field, in line with the trend seen in many central banks in the euro area.





Filip CARON / Head of the Digital Euro and Payments Policy Unit

In October 2023, the Eurosystem launched the preparatory phase for a digital euro. The Bank is also working on this project, which led to the creation of a new Digital Euro and Payments Policy Unit. Since late 2023, the unit has been led by Filip Caron, who is very familiar with this subject.

### **ECB**

"I have headed the Bank's Digital Euro and Payments Policy Unit since 16 December. Prior to that, I was at the ECB, where I also worked on the digital euro. After completing my doctorate, I joined the National Bank in the field of prudential supervision. More specifically, I was responsible for overseeing Swift (Society for Worldwide Interbank Financial Telecommunication, the world's leading provider of financial messaging services). I also represented the Bank in international working groups on digital innovation and digital currencies. I then moved to Frankfurt because I wanted to be involved in the digital euro project. I hoped to

contribute to its design and approach the subject from a different angle, after having been in a supervisory role. I returned to the Bank as this newly created unit deals with some interesting issues. I'm pleased to be able to support this initiative.

During my time at the ECB, when we were still in the investigative phase, we started considering what a digital euro might look like. A number of major issues were raised, including in relation to privacy, the settlement of transactions and user criteria. We carried out an in-depth analysis at the European level, which now needs to be completed, including with information from local markets. This is part of the preparatory phase, which officially began on 18 October."

### **Preparatory phase**

"This new phase aims to answer the most important questions. In which situations will we be able to use the digital euro? What technologies are needed? Which infrastructure do we already have? How much money will we be able to hold? Are there specific local needs? Who are the potential suppliers? These are all questions that our unit will look into. This requires not only a great deal of analysis, but also information campaigns targeting future users, such as individuals and businesses. If the ECB ultimately



decides to issue a digital euro, major efforts will be needed to communicate, raise awareness and explain the subject to the general public.

The ECB has split the preparatory phase into two stages. An interim review will take place in two years' time. That may seem like a long time, but there's a lot of work to do! A project of this scale is incredibly time consuming. We also have to work with a large number of partners – all the central banks in the euro area – and develop a common vision with them.

After these two years, if the project continues, we'll get down to business. We will then begin preparations for a smooth launch, before gradually shifting up a gear."

### A public currency

"The main aim of the digital euro is to ensure that public money – with its unique and interesting features – remains available in the digital age. Everyone should be able to employ the means of payment of their choice, one that is relatively easy to use and adapted to the demands of the modern world. In addition, the development of strategic autonomy in Europe is an important aspect."

### A multidisciplinary project

"Fortunately, we are not the only ones working on the digital euro at the Bank. The idea, with this new unit, is to work in a more coordinated and structured way, drawing of course on the expertise of the Bank's many entities. For the legal framework, for example, which still needs to be further developed, we are working closely with the Legal Department, of course, but also with the department responsible for the prevention of money laundering. There are also economic, technical and security aspects, on which we are working intensively with various experts. It's a multidisciplinary project."

"Fortunately, we are not the only ones working on the digital euro at the Bank."

### The digital euro: what is and isn't it?

#### A complement to notes and coins

The digital euro would complement banknotes and coins. It would therefore be an additional means of payment for small amounts, alongside cash. This central bank currency issued in digital form would enable electronic payments to be made uniformly throughout Europe, free of charge, safely and securely, whether in shops, online or between individuals. It would also offer the possibility to make payments offline. The digital euro could be held in an electronic wallet with a bank or public operator.

### Not a cryptocurrency

The digital euro would not be a cryptocurrency, as it would be guaranteed by a central bank. Central banks are responsible for preserving the value of money, whether fiat or digital. Cryptocurrencies, on the other hand, are neither guaranteed nor managed by a central institution, which makes them risky and unstable.

### Protection of privacy

The protection of privacy is an essential condition for the design of a digital euro. Central banks would not have access to personal data. For offline payments, only the originator and the beneficiary would be aware of the transaction.

Phases				
Investigative phase	Preparatory phase			
Oct 2021	Nov Stage	1	Nov 2025	Stage 2
Concept definition, technological explora- tion, design proposal.	Preparation for development, selection of service providers, continued pursuit of technological exploration, support for the legislative process.		Once a legal framework for the digital euro has been established at European level, a final decision can be taken.	

#### Universal use

The joint work of the HLTF and the PSG has made it possible to prepare guidelines for the design and functionalities of a possible digital euro. The Eurosystem conceives of the digital euro as a multi-purpose currency, one that would be accessible both online and offline, covering all retail payment use cases, instantly and

free of charge (for basic use) throughout the euro area. Its main applications would include person-to-person (P2P) transactions, as well as e-commerce and point-of-sale (POS) situations, allowing payments to be made in public currency both in-store and online. The digital euro could also be used for government-to-person (G2X) or business-to-business (B2B) transactions, including the payment of allowances or subsidies.



However, it should be noted that all of these decisions, which are described in greater detail in the "Economic and financial developments" section of the Annual Report 2023 are the sole responsibility of the Eurosystem. They will therefore have to be confirmed by the European co-legislators: the Commission, the Council and the Parliament. These institutions will play a crucial role in the development of the legal framework for a digital euro, an essential step to enable the Eurosystem to potentially issue this new form of currency.

### Two sides of the same coin

In June 2023, the European Commission published the Single Currency Package. This initiative, which is currently being scrutinised by the European Parliament and the Council, recognises the importance of adapting the key characteristics of physical money to the digital context. More specifically, the draft stresses the need to adapt the fundamental aspects of physical money, such as confidentiality, offline use, resilience, compulsory acceptance and a distinct European identity, to the digital domain. The digital euro would therefore serve as a complement to cash in a world that is becoming increasingly digital. This is why the European Commission also included in the package

provisions on the status of cash as legal tender, aimed at preserving and protecting the role of cash in our society.

### A socially minded project

In addition to Europe's central banks and policy-makers, the common currency and its form – physical or digital – are a matter of concern for all citizens. This is why public consultations, discussion groups, advisory committees, such as the European Retail Payments Board (ERPB) at ECB level and the National Retail Payments Committee (NRPC) at Belgian level, and conferences were organised throughout the year. The aim of these initiatives was to raise as much awareness as possible of the project, thereby ensuring inclusive participation that is representative of society as a whole.

# Preparedness to resolve a banking crisis without recourse to the public purse

The difficulties encountered by some foreign banks in the first half of the year were a reminder of how important it is for the authorities to be prepared to manage crises. This is one of the National Bank's main tasks.

The National Bank carries out its activities as Belgium's resolution authority in the framework of the Single Resolution Mechanism, the second pillar of the European banking union. Resolution mechanisms should enable the authorities to resolve a

crisis affecting a credit institution without placing the burden on public finances and while preventing the impact of these disruptions from spreading to the system as a whole. Each year, the Bank draws up an action plan that reflects both its own priorities and those established for the European banking union by the Single Resolution Board. The 2023 action plan focused on four areas deemed crucial to ensuring, if necessary, the handling of a bank failure without impacting the real economy, affecting financial stability or resorting to the public purse.

## Prudential supervision and resolution

### **Resolution Unit**

The Bank has been designated as the national resolution authority and must therefore – in the framework of the Single Resolution Mechanism – make preparations so that credit institutions can fail without compromising the stability of the financial system and without the cost falling on taxpayers. The Resolution Unit acts as the secretariat for the Resolution Board, the body within the Bank responsible for this task, and ensures in particular that each credit institution has a resolution plan and meets the regulatory requirements for resolution.

#### These four areas cover:

- 1. The preparations made by each banking group established in Belgium, as well as stockbroking firms, to strengthen their resolvability. The National Bank, together with the Single Resolution Board, ensures that these groups are sufficiently prepared to apply resolution tools in the event of failure. This implies, among other things, the integration of resolvability considerations into their governance.
- The development of a statutory and regulatory framework that is sufficiently robust to allow failures to be dealt with rapidly. This framework must, among other things, define preparedness requirements for credit institutions and stockbroking firms, including in relation to the structure of their liabilities.

In particular, at the request of the Council, the Commission adopted on 18 April 2023 a proposal amending certain aspects of the bank crisis management framework. This proposal focuses on the resolution of medium-sized

and smaller banks. In its capacity as an independent expert, the National Bank is participating in the negotiations on these initiatives at European level and will play a leading role



under the Belgian Presidency of the Council of the European Union.

- 3. The development of crisis management capability, based on the drafting of crisis manuals describing the various steps to be taken, both legal and operational, to implement the various resolution tools in a Belgian context.
- 4. The creation of resolution funds, pre-financed by the sector, to ensure that funding is available when resolution tools are needed. This funding essentially takes the form of a European resolution fund. In 2023, the Single Resolution Fund raised contributions amounting to €11.7 billion, bringing it to €77.6 billion. Belgian credit institutions contributed €330.1 million to the fund in 2023, compared with €447.6 million in 2022.

At the crossroads of law and finance, the resolution framework provides a favourable environment for lawyers and financial analysts to develop their talents. It requires analytical, conceptual, negotiating and diplomatic skills, as well as the ability to develop solutions that must be put into practice in a Belgian and European environment, working with credit institutions and the Belgian and European authorities.

### Statistics at the Bank:

### renewed resilience in a spirit of continuity

In 2023, the General Statistics Department continued to provide internal and external users with relevant, high-quality statistics for macroeconomic and monetary policy. At the beginning of the year, the new head of the department took up his post and, in September, a new director was given responsibility for the department.

### **General Statistics Department**

The General Statistics Department plays a key role in providing figures that are essential to gain a proper understanding of the workings of the Belgian economy. The figures produced by the Bank also have a direct influence on the day-to-day decisions taken by public authorities, businesses and citizens. By working with the most recent data, the Bank keeps its finger on the pulse of the Belgian economy and its place in the world. It also contributes to the public interest and serves society. The Bank produces and disseminates statistics by focusing on innovation and relevance, with a strong European and international dimension, in order to guarantee quality and reliability. In this way, it contributes to achieving a better economy and society.



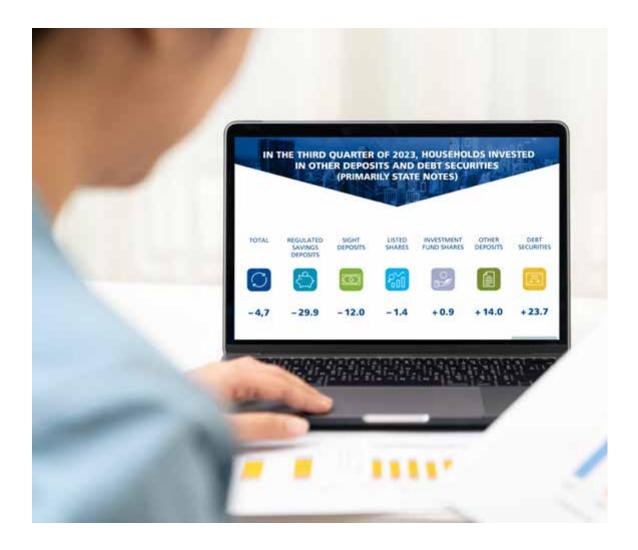
In 2023, the department thus embarked on a process of change and renewal, the top priority of which is to develop a new strategy for the Bank's statistical services. The aim is to ensure continuity in the production and dissemination of the Bank's statistics while meeting the highest standards in terms of quality. In this context, the Bank remains attentive to new user needs and innovative best practices in official statistics, based on international standards. It pays particular attention to the accessible dissemination of its statistics and provides targeted support to members of the Statistics Department in this regard. In this way, the Bank aims to contribute to the production and dissemination of statistics in the public interest.

In order to apply these principles, various initiatives will be launched in the coming months and years. Their main objective will be to produce and disseminate relevant, high-quality statistics for the widest possible audience. In particular, this will entail strengthening the coherence and cross-disciplinary nature of the work carried out by the department's various entities, as described in more detail below.

# New figures on savings and payments, the distribution of household wealth and climate-related indicators

### Major shift in household financial assets

The rise in interest rates was not passed on at the same pace to different types of savings vehicles in 2023. This led to a significant shift in the composition of household financial assets. These developments were closely tracked in the monthly statistics on bank interest rates and household deposits and loans, as well as in the quarterly sector accounts. On 3 October 2023, the Bank published a blog article entitled "Belgian households flock to new State note, leading to record fall in bank deposits", which examined the success of the State note that



resulted in a shift in household financial assets and an outflow of funds for banks. Infographics were regularly published to present the impact to the general public.

### Mapping of Belgian payment habits

Since 2022, the Bank has been collecting more and more data on payment transactions. This information provides insight into how, where and to whom Belgian households, businesses and public authorities make payments. On 14 April 2023, the Bank published a blog post entitled "Mapping the payment behaviour of Belgians", describing the wealth of information contained in the new payment statistics. Initial findings for the first half of 2022 were also presented. In January 2024, the Bank published data for 2022 and the first half of 2023 on its website (NBB.Stat), including on transfers and card payments.

#### Distribution of household wealth

At the beginning of 2024, the Bank published distributional wealth accounts (DWA) for the first time. These new experimental statistics add a distributional dimension to the macroeconomic aggregates of the national financial and non-financial accounts relating to household wealth. Statistics users and policymakers increasingly want to be able to better assess, among other things, the impact of economic shocks on household wealth.

With this in mind, the ECB developed a new methodology in cooperation with the Bank, using microdata from the Household Finance and Consumption Survey (HFCS). The DWA make it possible to break down the various types of household assets into deciles or according to demographic variables. Other indicators are also calculated, such as the Gini coefficient, average and median wealth, etc.

The initial results show a slight reduction in net wealth inequality between Belgian households in recent years, as measured by the Gini coefficient or the percentage of wealth held by the top 10 %. The DWA are available as from 2010 and will be updated quarterly. These statistics are also published by the ECB for the euro area and by other member countries.

## Further improvement of climate-related indicators

The effects of climate change continue to dominate the news and political debate. The Bank supports the further development of experimental climate-related indicators for the financial sector. These are published by the ECB on its website and provide information, among other things, on the climate-related risks to which financial institutions are exposed through the securities and corporate loans they hold in their portfolios.

2023 was marked by the preparation of methodological improvements and extension of the indicators relating to the physical risks associated with climate change. The scope of the indicators on sustainable finance was broadened to include data on sustainable instruments, which formed the object of an external study. The Bank mainly contributed to the indicators relating to corporate greenhouse gas emissions in financial sector portfolios. Efforts focused in particular on improving data coverage and analysing the determining factors in the evolution of

# Statistics in the public interest: towards better communication of our figures

As an organisation that serves the public interest, the Bank strives to continue to play a leading role in the dissemination and communication of financial and economic data and statistics. In this way, it aims to support policymakers and public debate.

The Bank facilitates and oversees the submission of statistics to national and international institutions, in accordance with legal requirements. In addition, a new strategy for the communication of data and statistics is currently being developed. The emphasis will be on transparent and accessible disclosure to as broad an audience as possible, i.e. both experts and the general public. To this end, the Bank has begun to reorganise the teams responsible for disseminating statistics. New staff with the necessary knowledge and experience have also been recruited.



In addition, obsolete software and database infrastructure will be replaced. These innovations will form the backbone of the new strategy. To facilitate the visualisation of data, the Bank is examining the possibilities to integrate relevant innovative technologies. It has also begun drafting a set of standards designed to ensure consistent visualisation of the figures it produces.

One of the first results of this new approach is the creation of an interactive dashboard summarising the Bank's main statistics, to be published on its website by the end of 2023.

these indicators over time. Information on the new indicators and their benchmarks can be found on the FCB's website

In the "engine room": innovations and improvements in the production and distribution of the Bank's statistics

# Continuous improvement of the national accounts methodology

Given the importance of gross national income for the European budget, the national accounts methodology is constantly being improved. Every five years, Eurostat checks the accuracy and consistency of Member States' calculation methods. The current cycle runs from 2020 to 2024. Belgium, considered a low-risk country, was visited by Eurostat in June 2023. The visit focused on an analysis of the trade sector and identified eleven areas for improvement. Work on the methodology began in 2023. The revised national accounts incorporating the latest improvements are expected to be published in October 2024.

## The NAPA project: a new data architecture to assess gross value added

As part of the NAPA project, the Bank is working on a new method to calculate the gross value added of the various sectors of economic activity

### Last (transversal) reservation concerning Belgian gross national income (GNI) lifted

On 9 October 2023, the General Statistics Department was informed by Eurostat (acting on behalf of the European Commission) that the last specific outstanding reservation concerning Belgian gross national income had been successfully dealt with by the Large Cases Unit (LCU). The LCU is the unit within the Bank responsible for ensuring the enhanced statistical monitoring of multinationals. Globalisation is increasing the importance of multinational groups in the Belgian economy. Through the LCU, the Bank strives to gather the knowledge and information necessary to improve correspondence between the national accounts



and the balance of payments as well as the quality of the statistics produced.

The transversal reservation stemmed from Eurostat's 2016-2021 audit cycle and related to globalisation. It required the Member States to cooperate with one another and arrange for the recording of statistical issues related to globalisation in a coherent and consistent manner in the macroeconomic statistics. More specifically, pursuant to this reservation, each Member State had to ensure the statistical monitoring of three large multinationals.

in Belgium. This project uses advanced calculation methods and techniques to improve the accuracy of these estimates. The aim is to establish a clearer link between financial data on the national and regional economy through the introduction of data storage at the most fundamental level. The first tests of this new method, carried out in 2023, were successful and further improvements are planned for 2024. The ultimate goal is to align regional statistics with national statistics better and faster.

#### **CSDB**

The General Statistics Department collects and analyses data on the issuance and holding of financial instruments in order to gain insight into and visualise the financial relationships between the various sectors of the economy. To better manage these complex financial data, the department developed and has been using a new system called the CSDB (Centralised Securities Database) since the end of 2023. This system converts the financial data provided by external sources and the Bank's own departments into a standardised statistical format, allowing detailed statistics on financial instruments to be compiled and shared with internal and external users.

# Other examples of innovation: Bessy, R, Python and SALSA

In 2023, the General Statistics Department developed a new tool for compiling external statistics, called Bessy (Belgian External Statistics System). Bessy is used to calculate the balance of payments, the international investment position and international trade in services.

In 2023, the Bank also introduced major innovations in its statistical analysis methods. By using programming languages such as R and Python, the Bank is aligning itself with wider developments in statistical information systems, in which the importance of the application of data science is growing. Consequently, the Bank is also investing in providing the necessary support for its expert analysts.

Finally, under the name SALSA, the Bank is working on a complete overhaul of its software. SALSA allows the Bank to receive and store statistical data, send

# An ambassadorial role: contributing to innovation in statistics at the international level

In order to ensure the relevance of the Bank's statistics in an international context, experts from the General Statistics Department participate in international working groups and forums so as to keep up to date with the latest developments in economic and financial circles and incorporate them into statistics. Indeed, in a globalised and rapidly changing global economy, it is important to contribute knowledge and expertise to new initiatives by international organisations such as Eurostat, the ECB, the OECD and the IMF. Through its proactive participation in these discussions, the department also contributes to the Bank's ambassadorial role. one of the twelve themes identified in the Strategy 2025. In 2023, the Bank's representatives took on a number of additional responsibilities in international working groups with the aim of contributing to important new themes. For example, they participated in discussions and working groups on topics such as measuring green investments, sustainability and well-being, and the modern communication of statistics.





The KULeuven Faculty of Social Sciences elected Roeland Beerten, head of the NBB's Statistics Department, as an alumni ambassador in September 2023. "Roeland has dedicated his career to the effective communication to the general public of independently produced statistics," said KUL professor Jan Van Bavel in his congratulatory remarks. "This is an especially important task in times when we are often bombarded with numbers and figures in public discourse."



them to international organisations and make them available on its website. The technology is based on the SDMX international standard for statistical reporting. This integrated solution includes several components based on the .STAT suite developed by

the OECD and will provide a user-friendly interface for internal and external users.

### Progress on the ECB's Integrated Reporting Framework (IReF) for banks

In 2023, the ECB's European Statistics Committee adopted strategic decisions on the further development of the Integrated Reporting Framework (IReF). The aim of this project is twofold: to reduce the reporting burden on banks and to ensure a harmonised process for compiling banking statistics.

### Towards a single set of rules

After a cost-benefit analysis published in 2021-2022 demonstrated the benefits of the IReF, despite a high initial investment, a further such analysis was conducted in 2023. The results, published in early 2024, will determine the extent to which (i) country-specific reporting requirements can be integrated into the IReF, (ii) reporting can be extended to include, for example, relevant climate-related data and (iii) alignment with solo FINREP prudential reporting can be improved.

As a next step, a full cost-benefit comparison will be carried out to serve as the basis for drafting the IReF Regulation, which will replace the various existing regulations on the statistical reporting obligations of banks.

#### The research phase is underway

In addition to the development of a regulatory framework, the research phase focuses on organisation of the statistical business process and the development of IT solutions to support this process. This IT infrastructure will allow common data management (CDM) principles to be applied within the European System of Central Banks and the Single Supervisory Mechanism. These principles will provide for the exchange and security of data, as well as the use of harmonised reference databases on financial instruments and counterparties.

### Extension to prudential reporting and resolution

The IReF project also provides for cooperation with the European Banking Authority (EBA) to eventually integrate prudential and resolution reporting. To this end, the Joint Bank Reporting Committee (JBRC) was set up at the beginning of 2024. This is a consultative body made up of representatives of various European and national competent authorities and the banking sector. The Eurosystem is already working closely with the banking sector to optimise reporting and reduce the burden through the Banks' Integrated Reporting Dictionary (BIRD). BIRD provides a logical data model that allows banks' input to be transformed into the data to be reported to the authorities.

### Consequences at national level

With the introduction of the IReF, national reporting frameworks for statistical purposes, such as Scheme A, will be replaced by a single reporting scheme. However, Scheme A is also used for prudential supervision. The Bank is therefore working on an alternative and is examining how the figures needed for its various tasks can be retrieved via the IReF or other (existing) reporting frameworks, such as FINREP Solo. In 2023, dialogue was initiated between the sector and the Bank on this issue. This analysis will continue in the coming years in order to find an appropriate solution that meets the needs and allays the concerns of both the Bank and the banking sector.





# A WOMAN ON THE BOARD

**Géraldine THIRY** / Director

Géraldine Thiry was appointed to the NBB's Board of Directors on 1 September 2023. She is the first female director since 2018 and is responsible for overseeing the General Statistics Department and the Resolution Unit.

The Bank is well known to Director Thiry. Since 2021, she had been a member of the Council of Regency, in which capacity she shared her perspective from the academic world, where she was involved in developing indicators of economic sustainability at the European level. By joining the Board of Directors, this academic moved from theory to practice. A step she took with enthusiasm.

# A(nother) woman on the Board of Directors of the National Bank of Belgium: it's about time!

"Above all, I think it's an important signal that this type of position is accessible to women, or indeed to any other profile that is statistically under-represented on management bodies. That said, I have been warmly welcomed by the Board and feel respected for my skills and the manner in which I perform my duties, without regard to my gender. I've encountered a lot of goodwill and respect, in line with the Bank's values!"

# Statistics is your area of expertise. Is it as complex as it seems?

"Statistics are often viewed as a tool used to describe reality. However, we mustn't lose sight of the fact that they reflect a set of conventions, standards and methodological choices. For example, when is a price increase considered to be due to inflation or rather to reflect an improvement in the quality of the product?

These conventions shape the way we present economic and social facts and impact decision-making in the area of economic policy and, of course, monetary policy and financial stability.

However, they are not immutable and often reflect the geopolitical, historical or cultural context in which they were developed. The world is changing, in social, economic and environmental terms. Statistics therefore need to be adapted to the current reality if they are to remain relevant. This means regularly revising the System of National Accounts (SNA). The last review took place in 2008. The next one is scheduled for 2025 and, like other statistical authorities around the world, the Bank's teams are already working on it. It's a complex and time-consuming project, but one that is essential to ensure the relevance of our work."



# Climate-related aspects are becoming increasingly important for our figures. What should a central bank do in this regard?

"Central banks certainly have a role to play in producing high-quality statistical data on the climate and energy transitions, both for research purposes and for the general public. The Bank is no exception in this regard and publishes a regularly updated climate dashboard on its website. This type of communication is also a way for the Bank – which is an institution that serves the public interest – to demonstrate its social responsibility.

Of course, climate aspects are also taken into account in monetary policy, which is set at the level of the ECB's Governing Council, on which Governor Wunsch sits. Finally, as a supervisory authority, the Bank plays an important role in ensuring that the institutions it supervises implement the regulations imposed on them and fulfil their reporting obligations."

# Bank resolution is also one of your responsibilities. How did you get up to speed on this subject?

"I got up to speed with the subject fairly quickly, in the wake of the Silicon Valley Bank and Credit Suisse crises. These crises could have caused a wave of panic, but that was not the case in Europe. I see this as proof of the importance of having a credible prudential supervision and resolution framework. And the Bank is working on this, within the Single Supervisory Mechanism and the Single Resolution Mechanism!

Resolution is a long-term process. Its aim is to prevent contagion effects if a bank fails. The Single Resolution Mechanism was launched in 2014 in the wake of the 2008 global financial crisis. It marked two important milestones in 2023:

- the Single Resolution Fund a European fund that can be used to facilitate the resolution of banks, funded by banks themselves – now totals around €77 billion;
- almost all banks meet the conditions to be "resolvable" set out in the Single Resolution Board's Expectations for Banks, in other words they are as prepared as possible to deal with a failure.

"I feel respected for my skills and for the manner in which I perform my duties, without regard to my gender."

It all looks very good on paper. All that remains is to put it to the test, which is on the agenda for 2024, as part of a more empirical strategic review being prepared by the SRB. The Bank's Resolution Unit will therefore have its work cut out for it. In addition to this review, the Bank will work on two major matters under the Belgian Presidency of the Council of the European Union, namely a directive on the recovery and resolution of insurance institutions (IRRD) and crisis management and deposit insurance (CMDI). But let's not get ahead of ourselves."

# What's your take of the situation five months after joining the Board of Directors?

"Apart from the fact that I feel I am in the right place, I would say that it's a pleasure to work with people with so much expertise, in the areas of both statistics and resolution, and who demonstrate a high degree of professionalism combined with high availability."

### Increasingly efficient management of microdata

The Microdata Management Department organises and collects data from external sources, such as (financial and non-financial) companies, public authorities and households. These data are used for prudential supervision and research purposes. They are also used to compile financial and non-financial statistics, some of which are made available to the Belgian public authorities.

### Microdata Management Department

The Microdata Management Department centralises the collection and validation of the economic and/or financial data produced by the National Bank of Belgium. In doing so, it facilitates the task of filers by acting as a single interface, while minimising costs and guaranteeing that the quality of the data provided meets users' needs.

The department also heads up the Enterprise Data Management programme, which aims to ensure that the Bank's data are organised and processed in a modern and efficient way, so as to maximise quality and availability.



### A growing volume of data

The department supports the Bank's strategy that aims to gather a growing amount of data and provide increasingly high-quality economic and financial analyses. It also contributes to the task of supervising the financial sector with a view to guaranteeing financial and monetary stability. At the same time, it works to achieve operational efficiency and cost control objectives.

In 2023, projects started in previous years were pursued. Efforts to guarantee the stability, confidentiality and security of operations were continued, while aiming for greater operational efficiency, including through optimisation of the interfaces for external parties providing data, be it voluntarily or further to a legal obligation, as well as improvement of the services provided to the users of these data.

The Enterprise Data Management (EDM) project continued to look at ways of improving data management, with a view to developing a cross-cutting vision for the Bank as a whole.

### **Achievements in 2023**

In practical terms, 2023 was marked by a number of developments that are gradually changing the ways in which data are collected and validated. With regard to data collection, for example:

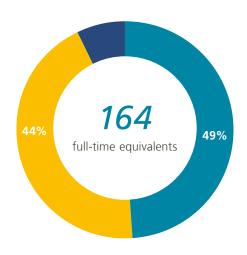
- Improvements were made to the website to make it easier for filers to navigate.
- Identification of OneGate users was further strengthened to enhance security.
- Computerisation of the business surveys to make them more representative continued.

Data management rules are currently being tightened to increase security and confidentiality for users. As the data are stored in a cloud environment, this can be done without compromising ease of use and flexibility. This project requires not only training efforts – in particular the establishment of a Data Academy – but also the documentation, description and inventorying of all aspects related to data management.

This work is being carried out in cooperation with the IT Department, the data protection officer (DPO), the chief data officer (CDO) and the data governance office (DGO). It forms part of a process to take into account legislative developments, such as the reporting required by the Corporate Sustainability Reporting Directive (CSRD), Country-by-Country Reporting (CBCR) and the Integrated Reporting Framework (IRef) for the banking sector.

### **HR challenges**

At the Bank, 164 full-time equivalents perform data collection and validation activities:



Statistics and research

Tasks entrusted to the Bank by law: the Central Balance Sheet Office, the Central Point of Contact and the Central Credit Registers

Prudential tasks



Managing staff is challenging given that the average age is close to 50 and 22 % of employees are over the age of 60. Fifteen percent of the workforce was renewed this year, and the next few years will require a large number of new hires, which will mean major efforts in terms of training and integration while, most likely, continuing to rely heavily on external consultants to carry out one-off assignments.





# "ARTIFICIAL INTELLIGENCE IS AN INVALUABLE TOOL FOR IMPROVING CUSTOMER SERVICE."

Catherine CRABBE / Head of the Contact Centre for data collection

Every year, 500,000 companies file their annual accounts with the National Bank's Central Balance Sheet Office. This activity peaks in July and August, months when the Contact Centre is regularly besieged with questions, by telephone and e-mail. How can we best manage these numerous requests and ensure that they are dealt with efficiently and on time? The answer can be summed up in one word: a chatbot.

Catherine: "The Central Balance Sheet Office's Contact Centre is the first point of contact for anyone with a question about the filing of annual accounts with the Bank. Given that there are around 500,000 filings each year, this works out to around a hundred calls a day and 150-200 daily emails at peak times."

A two-fold advantage

The same questions tend to pop up again and again. There is of course a list of FAQs, but this is not sufficient

Catherine: "Artificial intelligence offers interesting opportunities for a department like ours. We came up with the idea of developing a chatbot to answer questions on the Central Balance Sheet Office's webpage. Our aim was twofold: to lessen the workload of Contact Centre staff so that we can focus on the more complex questions we receive and, above all, to improve the user experience.

Cybo – the name of our chatbot – can answer the most frequently asked questions directly. It's much faster than a phone call or e-mail, which it can sometimes take us a while to get around to answering. In this way, we free up time to deal with more complex matters. This represents a major step forward in our work. You could even say it's a revolution!

### Chatbot 2.0

Cybo has only been up and running for a few months, so it's too soon to draw definitive conclusions. However, the initial feedback is encouraging: we see that customers are using it. What's next?

"Artificial intelligence offers interesting opportunities for a service like ours." Catherine: "The current chatbot is relatively basic, with a limited number of functions. For the time being, we're the ones who 'feed' it with the answers it needs to reply to customers. Our aim is to move to a version 2.0 in the relatively short term, one that allows the chatbot to search for information on the Central Balance Sheet Office's website on its own. By 'short term', I mean possibly as early as mid-2024, so stay tuned."



### Further streamlining of the cash cycle

Through controlling costs, monitoring the quality of banknotes in circulation and ensuring the accessibility and acceptance of cash, the Bank strives to rationalise the cash cycle, which will become even more efficient in 2024 with the inauguration of its new cash centre

### Streamlining the cash cycle

The Bank aims to streamline, insofar as possible, the lifecycle of the cash it puts into circulation through banks and cash-in-transit companies.

A large proportion of the banknotes in circulation is recycled directly by private companies in accordance with strict standards set and overseen by

the National Bank. Banknotes that are not recycled are returned to the Bank. In 2023, this concerned a total of 563,896,130 banknotes with a value of €19,925,280,790. The Bank checks both the authenticity and quality of these notes using the most-efficient and best-performing machines available, equipped with high-tech detectors specific to central banks. As a result:

- 11,056 counterfeit banknotes were withdrawn from circulation in 2023, a fall of 8% compared with the preceding year; €20 (35%) and €50 (38%) bills remain the most counterfeited in Belgium.
- 70,788,720 euro banknotes were withdrawn from circulation for destruction and replacement.





Only authentic, good-quality notes are put back into circulation.

It should also be noted that Belgian franc banknotes issued since 1944 can still be exchanged at the Bank. In 2023, 73,931 Belgian franc banknotes were exchanged, with a value of €1,871,040.

### An accessible means of payment...

The National Bank is responsible for supplying the country with banknotes and ensuring the quality of the banknotes in circulation. In this context, it pays particular attention to ensuring that cash remains an accessible and accepted means of payment, in the same way as electronic payments. Everyone should be able to use the payment method of their choosing.

As a result of the closure of many bank branches as well as initiatives by the banking sector to consolidate and rationalise ATM networks (including Batopin), the number of cash withdrawal points in Belgium is declining.

In this regard, it is important to examine the effects of the reduction in cash machines in terms of the impact on users, not necessarily in terms of numbers. To this end, the Bank developed a model to assess the accessibility and capacity of the ATM network in Belgium. This model served as the basis for negotiations between the government and the banking sector, which resulted in an agreement on access to ATMs in March 2023. The targets set out in the agreement will be assessed each year based on analyses carried out by the Bank.

### ... and one that is accepted

Cash must remain not only accessible but also accepted. Ensuring that cash is universally accepted is an essential part of any payment system and in keeping with the legal tender status of cash. Consumers should be able to choose their payment method, and people who do not have access to electronic payments should not be placed at a disadvantage.

In this respect, the European Commission recently tabled a proposal for a regulation on the legal tender status of cash. The aim of this proposal is to ensure



Suggested illustration: 3D aerial view of the new centre.

that citizens who so wish can continue to pay with cash. The regulation is intended to clarify an important ruling by the Court of Justice of the European Union in this area and to specify the obligations of the Member States in terms of both the acceptance of and access to cash.

### A new cash centre in 2024

The Bank's new cash centre will open in 2024. The building will meet the latest security standards and will have a fully automated vault and robot-fed banknote sorting machines. The resulting efficiency gains should lead to a 30% reduction in the number of staff working on cash-related activities.

# **Financial markets,** at the heart of central banking activity

In 2023, the Bank took two major steps in its portfolio management to further the transition to a net-zero, sustainable and inclusive economy. It also played a central role in the issuance of the one-year State note, the success of which exceeded all expectations. The year also saw the launch of a new payments platform. The Bank's earnings are not covered in this section. You can find more information on this subject in part III of this report, "Annual accounts and reports on the year".

# Financial Markets Department

The Financial Markets Department is responsible for carrying out the Bank's fundamental operational tasks as a national central bank and a member of the Eurosystem. The department thus makes an essential contribution to the twin missions of ensuring price stability and efficient payment systems. As an operational entity, this department is not engaged in either research or supervision. It is composed of independent, open-minded experts who contribute to the preparation and development of policy at national, Eurosystem and international levels, thanks to their experience and expertise in markets, transactions and infrastructures.



### **Day-to-day monetary policy**

The National Bank plays a crucial role in the implementation of monetary policy. Since the creation of the euro, this task has been carried out jointly by the central banks of the euro area countries, in collaboration with the European Central Bank. Operational aspects are decentralised, with each national central bank providing the commercial banks in its country with liquidity. Loans by the central bank to commercial banks are made on a short- or longer-term basis in exchange for collateral, which takes the form of securities or other assets, meaning a large number of transactions take place on a daily basis.

The Bank is also an active participant in the various bond purchase programmes (sovereign, corporate, etc.) launched almost 10 years ago, including programmes related specifically to the pandemic (PEPP). These purchase programmes, which are gradually coming to an end, have contributed to the strong growth of its balance sheet.

### **Payment systems intermediary**

In its role as a financial intermediary, the National Bank of Belgium manages payment and securities settlement systems. It helps to ensure that everyone can make payments and/or transfer securities in a safe, reliable, efficient and swift manner, be it in Belgium or abroad. More than 1.5 million transactions were processed in 2023.

These financial market infrastructure services include:

- T2 (Target2): for the settlement of payments,
- T2S (Target2 Securities): for securities settlement,
- TIPS (*Target Instant Payment Settlement*): for the settlement of instant payments.

The TARGET services apply ISO20022. A new consolidated platform was launched on 20 March 2023.

### **Investment of foreign currencies**

The Bank holds and manages the Belgian State's official foreign exchange reserves (gold and foreign currencies). These reserves are earmarked for tasks and operations in the public interest. The Bank invests these currencies in portfolios of various assets, the management of which must meet four objectives set by the Board of Directors: liquidity, safety, return and sustainability.

Climate-related aspects are also important. In 2023, the Bank took two major steps to further the transition to a net-zero, sustainable and inclusive economy, namely:

- Sustainable and Responsible Investment Charter

  Williams

  And the sum of springs trained to the sum of the sum
- the publication of a Sustainable and Responsible Investment Charter and
- the publication for the first time of climate-related financial disclosures for its non-monetary policy portfolios.

The Bank also changed the benchmark for its equity portfolio to an EU climate transition benchmark. The underlying assets are selected, weighted or excluded to place the portfolio on a decarbonisation path.



### **Central securities depository**

The Bank acts as a central securities depository (CSD) through its management of NBB-SSS (National Bank of Belgium Securities Settlement System). This system holds dematerialised bonds and ensures their automatic settlement on both the primary market, where new issuances are made, and the secondary market, where existing bonds are traded. These transactions are carried out by transferring securities between the accounts of participants in NBB-SSS. The securities traded are mainly issued by the Belgian State, but also by other public bodies and commercial entities.

A major milestone for NBB-SSS was reached in July 2022 with the European Commission's decision to rely on it for the issuance of securities by the European Union and Euratom with a view to financing, in particular, the NextGenerationEU programme. This project will gradually double the volume of securities issued through NBB-SSS, which already handles more than 1.5 million transactions a year without losing sight of the quality of the services provided.

### **State cashier**

The Bank is responsible for managing the State's cash position, which it does using a tool called Casper. In particular, it keeps the government's cash accounts and makes a limited number of payments on behalf of the government. The Debt Agency can monitor this position in real time, with a view to carrying out the transactions required for day-to-day cash management.

#### **State note**

At the end of the summer, Belgians flocked to the new one-year State note, a government bond targeting retail investors (gross rate: 3.30 %, net yield:

2.81 %). The issuance raised a record €21.896 billion, of which €7.1 billion was subscribed directly by the Treasury, and led to the sharpest fall in retail bank deposits in 20 years, causing a considerable liquidity shock for both Belgian banks and the Debt Agency, which had to revise the Treasury's financing plan.

The Bank – more specifically its Financial Markets Department – was instrumental in settlement of the State note in the Bank's central securities depository, NBB-SSS (see above). It should also be noted that the resulting liquidity shock had an impact on monetary policy liquidity operations, while the TARGET team, responsible for monitoring flows between banks, had to cope with a sharp increase in the volume of transactions.



### Renewal of the IT landscape

As in previous years, the IT Department focused heavily on the renewal and standardisation of the IT landscape over the past year.

For example, a new application for secure cash management went live at the Bank. This application will also be used by De Nederlandsche Bank and will be rolled out to several ESCB countries in 2024. The infrastructure for the new cash centre in Zellik was prepared in 2023, with maximum use being made of the latest automation techniques and technologies.

### **IT Department**

The IT Department provides the technology, expertise and policies that enable the Bank's various entities to carry out their tasks. It helps staff work productively and efficiently and the Bank's departments to provide efficient services to stakeholders. It constantly strives to reduce the risks associated with the use of technology in innovation, automation and digitalisation, bearing in mind the availability of digital solutions, the growing threat of cybercrime and the need to preserve data confidentiality.



#### **TARGET 2**

The new TARGET 2 payment system went live in the Eurosystem, providing a European platform for processing large-value payments for central and commercial banks. The IT Department worked with colleagues in the Financial Markets Department to achieve this, adapting all of the Bank's payment applications with a view to optimum integration with TARGET 2.

### **Enhancement of the cloud environment**

The Bank's cloud environment was enhanced through the introduction of technologies that can be deployed in all business areas. The objectives of greater scalability and agility, as well as faster access to new technologies and applications, are the main drivers of this push. The choice of transversal standards, promotion of the re-use of technology already in place and the integration of a high level of IT security allow the department not only to provide technical solutions but also to ensure risk management and integrate sustainable maintenance and long-term innovation into its approach.

In 2023, for example, the Bank's Automation Platform was extended to include various chatbots, including for users of the Central Balance Sheet Office.

To support the Bank's EDM (Enterprise Data Management) strategy, the data platform has been expanded to include a data catalogue and many staff members have been trained in new business intelligence and data science tools, while the Economics and Research department is facilitating access by universities to data and research through collaboration on the data platform.

In the cloud-based innovation sandbox, IT Department staff are testing new generative AI technologies through various proof-of-concepts, together with colleagues from other services. The aim is to enable secure and targeted integration of these technologies in 2024.

To ensure the secure and efficient coupling of applications in the NBB landscape, the department has also added a new API gateway to the integration platform. (An API or application programming interface is software that allows two applications to communicate

with each other.) Given that the Bank wishes to integrate not only its own applications but also those of the Eurosystem and those proposed by the market, integration tools are an important part of its strategy.

# A cross-cutting, forward-looking strategy

All of these initiatives fit seamlessly with the Bank's strategy to deploy new technologies and their advantages in a transversal and standardised manner. The idea is to develop cutting-edge, innovative tools to improve efficiency and security while enabling smooth integration into the Eurosystem. In the coming years, the department will continue to invest in the renewal of its applications in accordance with their lifecycle and in the integration of solutions to meet new business requirements.

This ongoing renewal of the Bank's IT landscape will only be possible if sufficient attention is paid to the new IT skills required and to the adoption of digital technologies by all of the Bank's staff, which is a crucial part of the IT strategy.

In these various initiatives, the Bank aims for sound IT risk management, an essential task of the IT Department. The IT Department achieved excellent results in 2023 in terms of its service levels (handling of incidents and application availability) which it continues to monitor closely.

In 2023, the IT Department also created an IT security service, with a clear mandate and solid knowledge of cyber-risk policy and management. Its objective is to be able to offer innovative technological solutions while guaranteeing security and stability.

### Modern tools for

### effective cross-cutting support

### **Paperless project**

Led by the General Secretariat, the paperless project is a key initiative in the Bank's organisational strategy, one that plays an important role in modernising the institution's working methods and significantly reducing paper consumption through the adoption of innovative digital tools. Digital solutions are at the heart of this transformation. Likewise, operational processes are being reviewed and optimised.

The paperless project is not just a green or technological initiative. It is a strategic part of the Bank's drive to work more efficiently in a more modern, flexible environment. This multi-year project requires cross-cutting collaboration with all of the Bank's departments and services, thereby underscoring our ongoing commitment to innovation and operational excellence.

#### **General Secretariat**

The General Secretariat provides crosscutting support to the Bank's various departments, services and bodies in the areas of management, coordination, international relations, CSR, public affairs, events, translation, communication and public relations. The General Secretariat supports the work of the Bank's management bodies, including the Council of Regency and the Board of Directors. It also organises the annual general meeting and is responsible for the Bank's auditorium and museum, which have been modernised in recent years to accommodate hybrid events and meetings.







# "IN THE BANK OF TOMORROW, ALL DOCUMENTS WILL BE DIGITAL."

Jille FLORIDOR / Enterprise Information Manager

The best paper is that which never leaves the printer! As a socially responsible company, the National Bank of Belgium has been working for several years to reduce its paper consumption. This digital transformation is at the heart of the strategy to make the NBB a modern and efficient central bank. As well as doing away with paper, the project entails reviewing working methods and, more broadly, the way in which the Bank manages its documents.

Jille: "While the basic idea was to reduce our dependence on paper, it very quickly became clear that we needed to go further by reviewing and adapting our document management processes and ensuring that they are anchored in the digital world. It's not possible to go from being a paper-based business to a digital one in the blink of an eye. If, from one day to the next, we no longer print anything, that means all our documents are now in electronic form. How do we manage them? Where do we save them? And where do we archive them, if necessary? How do we share documents with colleagues? How do we work together on a single document? These are all practical questions that require a systematic and organised approach.

Three projects, for the time being

"We are currently focusing our efforts on three major projects. Firstly, the introduction of a digital signature solution to facilitate the conclusion of contracts and exchanges with external parties, especially now that remote working has become widespread. Secondly, workflow management, i.e. the management of workflows involving electronic document management and approval processes. For example, all of the stages involved in preparing, proofreading and publishing a press release. This is a complex process, involving a large number of players and requiring many different exchanges. And finally, digital archiving, the final stage in the lifecycle of a document.

### From start to finish

"Our aim is to cover every stage in the lifecycle of a document, from creation to archiving, and to streamline document management. It's a gigantic jigsaw puzzle, because there are so many different processes and so many people involved, each with their own specific needs. For example, a prudential supervision

"The paperless programme is more than just a green initiative; it's part of our drive to achieve greater efficiency."

service will have completely different processes from a department like Communications. But, first of all, what we're trying to do is introduce new tools and develop an overall digital document management policy that applies to everyone at the Bank. Then, of course, the various services and departments can turn to us to find the solution that best meets their needs.

It's a long-term project which involves other aspects that I haven't mentioned. Of course, the methods we're developing have to be user friendly; after all, we don't want to complicate our colleagues' lives – quite the opposite! But these new working methods must also meet very high security standards, particularly in a context where documents are managed and backed up in the cloud. These are all aspects that we need to address, while new ones are emerging, such as the issue of artificial intelligence. But that's also what makes this project so exciting!



## International Coordination and Eurosystem

The International Coordination and Eurosystem team plays an important role in preparing the governor for meetings of the ECB Governing Council.

The Governing Council is the main decision-making body of the European Central Bank (ECB). It comprises the six members of the ECB's Executive Board and the 20 governors of the national central banks of the euro area countries. The members of the Governing Council attend meetings in a personal and independent capacity: they do not represent their country or their central bank. They act in the interests of the euro area as a whole. For the Bank, in addition to Governor Wunsch, Vice-Governor Steven Vanackere also takes part (as an alternate) in meetings of the ECB Governing Council. Outside holiday periods, the Council meets around twice a month to take the decisions necessary to carry out the tasks of the ECB and the Eurosystem.

Every six weeks, the Governing Council meets to take decisions on monetary policy in the euro area. These decisions relate to key interest rates, purchase programmes and other instruments used to steer the course and transmission of monetary policy with a view to stabilising inflation at 2 % over the medium

term. While regular Governing Council meetings are often held virtually, monetary policy meetings are always held in person, usually at the ECB's headquarters in Frankfurt. At these meetings, the members of the Governing Council hold in-depth discussions on macroeconomic, financial and monetary developments that have a bearing on inflation in the euro area. Monetary policy decisions are taken by consensus and are then commented on in detail by the ECB president and vice-president at a press conference.

At the Eurosystem level, the Bank, like other national central banks in the euro area, is closely involved in the preparation of monetary policy meetings and decisions. Prior to each meeting, the ECB provides extensive documentation including in-depth analyses of, among other things, the European economy, inflation and inflation expectations, employment, the financial sector and financial markets. Each quarter, the Council is provided with new macroeconomic projections for the euro area, which it uses to assess economic developments and risks to price stability. The documentation for the meetings and the macroeconomic projections are prepared in collaboration with experts from the national central banks and discussed in various ESCB committees.



© Andrej Hanzekovic/ECB

In the run-up to a monetary policy meeting of the Governing Council, the Bank organises a preparatory meeting attended by the governor and the vice-governor. The Economics and Research, Financial Markets and Legal Departments are those most closely involved in the substantive preparations for these meetings. International Coordination and Eurosystem is responsible for overall coordination of the process and organisation of the meeting. During the preparatory meeting, staff comment on the latest economic developments, in their respective areas of expertise, and the impact thereof on price stability. The documentation for the meetings provided by the ECB forms the starting point. The discussions are enriched by the ECB's own analyses, with a view to obtaining as comprehensive an overview as possible and addressing the various policy options on that basis.

**Communications Department** 

In the context of the Bank's outreach strategy, the Communications Department continued its efforts in 2023 to optimise communication with various stakeholders.

The "green key" studio was successfully launched in the spring, enabling the Bank to create its own webinars and audiovisual productions. In particular, the webinars organised to coincide with the publication of the Bank's economic projections were broadcast live from this new studio.

Again as part of it outreach strategy, the **editorial**, **copywriting and rewriting** teams made substantial efforts to improve the linguistic accessibility and readability of external and internal publications. In collaboration with Training & Development, training courses in this area were also offered to staff. The purpose of these workshops was to teach staff how to better tailor their language to the audience the Bank aims to reach with its publications.

#### Redesign of the Bank's website

Since 2022, the Communications Department has been developing a new website. The goal is to tailor the website more closely to the expectations of the Bank's various target groups. Unlike the current site, which is structured around the Bank's internal



organisation, the new site will focus on making the information visitors are looking for more readily available and accessible.

A needs analysis, supplemented by the results of internal and external user surveys, was completed in the spring of 2023. Following a public call for tenders, an external partner was selected to support the Bank's internal experts in developing the new website. Throughout the year, the **web team** worked hard on the new site, which is scheduled to go live in late 2024 or early 2025.

#### **Media relations**

#### Press coverage in Belgium

In 2023, the Bank's main interaction with the press concerned the presentation of its annual report and Financial Stability Report, as well as the spring and autumn economic projections for Belgium. As always, the press conferences organised by the **external communications team** attracted a great deal of interest.

Numerous studies and publications from the Economics and Research, Statistics and Cash Departments as well as figures from the Central Balance Sheet Office were published in newspapers and magazines, or on websites. The wide range of subjects covered included the digital euro, household loans, public spending and debt, pensions and pension expenditure, corporate profit margins and inflation, the effects of interest rates on businesses, climate policy, the impact of inflation on public finances, figures from the Central Balance Sheet Office, the results of consumer confidence and business surveys and various statistics. The external communications team ensured that the governor and members of the Board of Directors were not the only points of contact for the press; experts in various fields were regularly called upon to respond to interview requests.

The fact that the increases in key ECB interest rates were not matched by similar increases in interest rates on savings accounts gave rise to much public debate, including at Rue de la Loi. The press asked the Bank to comment on this issue on several occasions. The opinion issued by the Bank on this subject, at the request of the finance minister, received substantial press coverage.



The press conference on the Bank's annual report always attracts a great deal of interest.

In 2023, the Bank's Communications Department also took part in the hit Radio 2 (VRT) programme "Mysteries of Flanders", more specifically an episode devoted to the SNCB's "golden railway line" which ran from the north-south junction in Brussels to the Bank's headquarters.

Most of the press coverage was neutral, positive and/ or very accurate. However, over the course of the year, the Communications Department noted that, on occasion, research results or statements by members of the Board of Directors or NBB experts were reported or presented in an incorrect or unbalanced manner. Journalists have an increasing tendency towards precipitation in their reporting and are under pressure to produce arti-

cles that attract as many clicks as possible (clickbait). This is an unfortunate trend which other central banks have also witnessed.



#### International press coverage

The ECB's change of course in monetary policy, which began in the autumn of 2022, was the subject of substantial press coverage over the past year. Almost every week, Governor Wunsch received questions from the international press in his capacity as a member of the ECB Governing Council. The Communications Department regularly organised meetings with media outlets such as Reuters, Bloomberg, CNBC and numerous specialist media on the occasion of the IMF's Annual and Spring Meetings. The governor's views on inflation also received extensive coverage at the ECB Forum on Central Banking in Sintra.

Another highlight was the long live interview the governor gave to CNN, for which the well-known anchor

Richard Quest travelled to Brussels. This was the first time in the history of the Bank that its governor had been invited to appear on this prestigious American news channel. The governor's position on ECB rate hikes was also widely covered in interviews with leading newspapers such as the *Financial Times*, the *New York Times* and the German daily *Böersen-Zeitung*.

As mentioned in the section entitled "Central banking in times of inflation", the governor's remarks on monetary policy at the ECB Watchers event and at the Frankfurt European Banking Conference resonated strongly with both the press and opinion leaders on social media. The governor also accepted an invitation from the prestigious Peterson Institute for International Economics in Washington, DC, where he gave an enthusiastically received speech on the macroeconomic implications of climate action.

"The ECB's change of course in monetary policy, which began in the autumn of 2022, was the subject of substantial press coverage over the past year."



#### Stakeholder outreach

The Bank communicates not only through channels such as its website, social media, press releases and press conferences. Events organised at the Bank or elsewhere in Belgium are also important, as they enable the Bank to meet its various stakeholders in person and engage in direct dialogue with them. Experience in 2022 and 2023 showed that, despite the development of digital communication channels such as webinars, physical meetings remain essential and are much appreciated by stakeholders.

The **Economic Relations Division** is responsible for organising these face-to-face events, which take the form of debates, conferences and presentations. Around half of these events are organised in-house, while the other half are organised in cooperation with the Belgian Financial Forum.

The division's flagship event is the annual outreach campaign on the annual report, which attracted a great deal of interest in around fifteen cities across the country this past year. The public response to conferences and debates on topical subjects such as the digital euro, pensions, artificial intelligence, the sustainability of public finances, inflation and its impact on businesses was also very satisfactory.

#### Other activities

In 2023, the **internal communications team** prepared for the launch of a new staff magazine and conducted a large-scale employee satisfaction survey on internal communication, the results of which will enable the team to further improve its efforts for the benefit of staff.

The Communications Department also plays an active role in the Bank's paperless project. As part of its digitalisation efforts, the Digital Printing Room (DPR) is increasingly scanning incoming mail and documents, which also furthers this purpose.

#### **Art collection**

The General Secretariat is responsible for overseeing the Bank's contemporary art collection, which now numbers more than 2,000 works and was established

in 1972. In 2023, a participatory artwork entitled "1001 Plateaux" was created. This work is discussed in more detail below. The Bank aims to share its art collection with the general public. In 2023, 21 works of art were lent for exhibitions in Belgium and abroad.



**Plate**:

Sharing

07.09.2023 > 10.11.2023







# ANOTHER – MORE HUMAN – SIDE TO THE BANK

Anne BAMBYNEK / Curator of the Bank's contemporary art collection

Pauline LANDA / Curator of the Museum of the National Bank of Belgium

The Bank is first and foremost known for its independent experts, who carry out complex tasks in the areas of economics and finance. For those unfamiliar with these fields, understanding what goes on can be a challenge. Through its museum, the Bank is able to make its activities known to the general public in a more accessible manner. The Bank also has a contemporary art collection which it uses to build bridges and create ties.

2023 was a special year, as the museum and the art collection joined forces on a project to create a participatory artwork with 155 colleagues. The "1001 Plateaux" project helped to forge ties between colleagues, between staff and the Bank's collections, and between the Bank and the art world.

## Anne Bambynek: A project that created ties that bind

"The most immersive project I worked on in 2023 was undoubtedly '1001 Plateaux'. Carine Fol, the external adviser to the Bank for its contemporary art collection, came up with the idea. We entrusted execution of the project to Brussels-born artist Françoise Schein. She led workshops in which 155 staff members painted their own interpretation of a work from the collections [of the Bank and the museum] on porcelain trays. All of the trays together make up the artwork entitled '1001 Plateaux', which is now part of the Bank's collection

It's hard to explain this project in just a few sentences, because there are so many layers to it: the preparation with Françoise, the workshops with colleagues, and the crowning moment: the unveiling of the artwork, when we were finally able to share it. It was a very moving experience for me. And then there were the artists who came to see the interpretation of their works, the colleagues who proudly passed by with their friends and family and those who organised guided tours. This project represents more than just the realisation of a work of art; it's a permanent trace of the Bank's ambassadorial mission. And it's important to point out that the work is of very high

quality, as visitors from the art world have unanimously expressed.

The art team, of course, notched up other achievements over the year:

- We purchased works by five artists, paying particular attention to diversity: Ana Torfs, Jean Katambayi Mukendi, Elise Peroi, Léa Belooussovitch and Françoise Schein.
- We organised the '1001 Plateaux' exhibition and produced a brochure presenting the works.
- We took part in the Eclectic Architecture Biennial and organised lunchtime outings for colleagues (such as visits to exhibitions and the presentation of a book) as well as various tailor-made guided tours.

Finally, we worked to raise the profile of the collection through loans in Belgium and abroad, exchanges of information with similar collections and partnerships with organisations and universities."

## Pauline Landa: An all-consuming passion

"The '1001 Plateaux' project was important for me as well. It was an excellent opportunity to get colleagues actively involved and to enhance the museum's visibility. People who work at the Bank are surrounded by works of art; this project helped them really connect with these works and reconnect with each other after the pandemic. It was easy to convince 155 colleagues to take part.





With '1001 Plateaux', we minted 155 ambassadors [for the Bank] at one go, not to mention many other colleagues who may regret not having dared to take the plunge.

This unique, participatory project become a real passion, to which a great deal of energy was devoted. In addition, the museum's team completed a number of other projects over the year. In 2023, we welcomed no fewer than 32,873 visitors. In principle, we're only open during the week, from Monday to Friday, but we also take part in evening and weekend events, such as Heritage Days, Museum Night Fever, Pyjama Day and so on. In May, we organised "Tales at the Museum" with guided tours and, during the school holidays, we offer an educational "trail" for children to follow.

But our greatest achievement is that our museum, which is free of charge, is open to everyone: schools, senior citizens and associations (for example for migrants learning French or Dutch). In this way, these groups get to know our language and a part of Belgian history in a very different way."

"All of our achievements are only possible thanks to excellent cooperation with the various teams and departments within the Bank. We would like to thank everyone warmly for this!"

# Reform of human resources and remuneration policies

Following lengthy negotiations between the social partners, a collective bargaining agreement was signed in 2023 formalising the reform of the Bank's human resources and remuneration policies.

From 2024, the Bank will be able to rely on redesigned processes for career development (recruitment, internal mobility and promotion), organisational charts, job descriptions, the salary model and benefits management.

This reform creates a more motivating and transparent human resources system, with remuneration in line with responsibilities, skills and performance. A single human resources system now applies to all staff, both employees and management personnel.

#### **Hybrid working policy**

In 2023, the evaluation of hybrid working was completed and the Bank's teleworking policy was enshrined in a collective agreement.

#### **Human Resources**

The Human Resources Department comprises two entities. The first, Payroll and Employee Benefits, is responsible for managing employment contracts, salaries and benefits. The second, Human Resources Management, oversees skills acquisition, recruitment, the integration of new employees and talent development.





Members of staff whose duties allow them to do so may telework. The rule is that, on a quarterly basis, they must work 50% of their time at the Bank's premises in Brussels. On-site work remains possible at all times, particularly for members of staff whose teleworking environment is not ideal.

To ensure that hybrid working time arrangements are effective and sustainable, management is encouraged to conclude sound agreements with staff. Raising awareness is also a major priority. Particular attention is paid to issues such as the right to disconnect, social cohesion and training for new colleagues.

Hybrid working is an integral part of one of the Bank's strategic projects, called New Ways of Working, the aim of which is to organise work according to the activity performed. Employees choose their place of work according to the tasks they have to carry out. Around a third of staff already have a working environment that has been redesigned in this way. This should be the case for the entire workforce by the end of 2025.

#### With respect and trust

In 2023, the Bank's values of "respect" and "trust" were put in the spotlight. In keeping with these values, actions were taken in the areas of psychological safety, feedback, employee well-being and engagement.

The starting point was the organisation of a Bankwide survey on well-being and engagement, in which 62% of staff took part. The survey resulted in a positive score of 78%. Afterwards, teams were able to choose the theme they wished to focus on: 23% chose feedback and 25% psychological safety.

Team workshops were organised on these two themes, each introduced by a role play. Over 850 employees took part.

The remaining teams opted to focus on engagement and organised a workshop on this theme.

# Fifth place in the Randstad Employer Brand Research

After ranking sixth in 2022, the Bank did even better in 2023, coming in fifth out of 182 participating Belgian companies with more than 1,000 employees. Remuneration, job security and work-life balance were some of the criteria for which the Bank received high marks.

#### **Pioneering Employer award**

In November 2023, the Bank was recognised as a Pioneering Employer for a period of one year.

This joint initiative of the Antwerp Management School, Jobat and De Lijn focuses on three themes

- less travel;
- smarter, greener mobility; and
- hybrid work that is centred around people.

Candidates must present a one-year pathway on one of these three themes.

The Bank picked the third theme, i.e. hybrid, people-centred work.

In this context, issues such as feedback, psychological safety, engagement and well-being were some of the focus areas.





#### **Diversity and inclusion**

Over the past year, the Bank finalised its policy on diversity and the inclusion of people with disabilities, based on a quantitative assessment and the findings of the multidisciplinary working group that studied this subject in 2021 and 2022.

The Board of Directors decided on measures to support the recruitment and retention of people with disabilities with the objective of achieving a win-win outcome, i.e. one that is also beneficial for the business as it allows it to assume its social responsibility and to offer teams the opportunity to welcome colleagues with unique life experiences under the best possible conditions, thereby strengthening their cohesion. For people with disabilities, a more suitable welcome and working environment are a precursor to a lasting and sustainable career.

Although the Bank has not set a quantitative target, it will remain attentive to the evolution in the number of employees requiring specific adaptations in order to perform their duties. But the most significant development was undoubtedly the heightened attention paid to the harmonious functioning of teams in which people with disabilities work, which benefited from support ranging from generally accepted adaptations to reinforced human resources.

The Human Resources Department and the internal health and safety service took a number of measures designed to facilitate the recruitment and integration of people with disabilities. For instance, they launched an awareness campaign, which included the publication of several in-house articles, the creation of a testimonial video and the organisation of interactive workshops. Attention was also paid to accessibility in recruitment procedures and how disabilities can be taken into account in renovation projects.







## Non-financial risk management

#### Three lines of defence

The Bank's non-financial risk management framework is based on three lines of defence.

The **first line** consists of all operational and cross-cutting departments which are responsible for identifying, assessing and dealing with the risks inherent in their activities. These front-line departments carry out analyses of the risks arising from their activities, to ensure that they remain within acceptable limits in order to achieve the objectives that have been set.

On the **second line**, the Bank has a fully-fledged unit dedicated to implementing and monitoring the non-financial risk management framework. It develops and updates the various components of the Bank's risk management system and provides support to the first line in managing all non-financial risks,

particularly in the areas of physical security, business continuity, outsourcing, IT security, information protection and cyber security, as well as compliance, including with anti-money laundering legislation, the General Data Protection Regulation (GDPR) and the code of ethics.

Finally, the **third line of defence** is responsible for independently and objectively assessing the effectiveness of internal controls and, where necessary, making recommendations to strengthen risk management.

In 2023, the Bank continued to develop and expand a major focus area of its non-financial risk management framework. Working closely with other departments, a comprehensive inventory of all business processes and key sub-processes was compiled. Among other things, the impact that a serious disruption to one of these processes could have on the proper functioning and reputation of the Bank was examined. This exercise makes it possible to set more focused priorities and allocate resources to the most business-critical processes and their main risks in the context of non-financial risk management. In addition, the first manual on managing the risks inherent in employees' use of generative artificial intelligence was produced.

#### **Second Line of Defence**

The Second Line of Defence deploys an overall risk management framework for the first line of defence, i.e. the Bank's departments, services and units. It also conducts risk analyses and independently ensures the effective and appropriate management of non-financial risks and compliance with laws and regulations.

"In 2023, the Bank continued to develop and expand a major focus area of its non-financial risk management framework."



## Cybersecurity and business continuity

In the area of cybersecurity and business continuity, the Bank is constantly striving to develop and improve the maturity and robustness of its security and prevention rules.

In this respect, heightened attention was paid to the potentially disruptive effects that cyber-attacks could have on the Bank, as well as on its essential service providers and critical utilities companies, be it directly or indirectly. A specific point for attention was the threat of ransomware attacks. Over the past year, an extensive simulation was carried out to mimic a ransomware attack and test internal controls. This exercise was conducted with the help of various experts and departments from within the Bank.

To keep staff alert to potential cyber threats, such as phishing emails and other malicious techniques, unannounced campaigns are regularly organised, during which real threats are simulated in a controlled manner. Staff who receive these emails and fail to respond

appropriately or are misled are asked to undergo refresher training to brush up on their skills.

In order to further improve awareness and training and tailor them to the specific needs of different target groups such as new hires, IT and other experts, and (senior) managers, it was decided to work with an external company specialising in awareness and training programmes.

In 2023, the Bank's Crisis Management Committee successfully navigated two real crises. In addition, the Bank organised a three-day conference for Eurosystem central banks on the topics of operational risk management (ORM), business continuity management (BCM) and resilience. The conference covered important topical issues such as the use of cloud services and their impact on cyber resilience, best practices in this area and protection against cyber threats from external service providers.

1 Namely, a water leak that caused a fire in an electrical installation and the attack on Swedish football fans in the centre of Brussels.



## Update of the information security policy

As far as information security is concerned, roles and responsibilities are clearly divided between the first and second lines of defence. The Bank thoroughly revised its information security policy in order to clarify the rules that need to be complied with by all employees when it comes to securing data and information systems. The policy covers aspects such as the protection of personal data in accordance with the GDPR and the handling of sensitive data at work-places outside the Bank (at home or remotely, given the widespread use of teleworking).

In addition to clear governance, user awareness also contributes to better information security. That's why the Bank provides online awareness training for all staff. Moreover, in order to deal appropriately with the risks associated with the use and migration of applications and data to the cloud, the eponymous working group has drawn up guidelines and a decision tree for operational departments. The aim is to assess whether and under which conditions applications and data can be transferred to the cloud. Compliance with legislation and the protection of personal data in accordance with the GDPR, as well as the applicable contractual agreements with third parties, are of particular importance in this respect.

#### Frequent checks of banknotes

As part of the second-line monitoring of banknote activity, an independent team within the Central Cash Office carries out checks on an ongoing basis to detect and prevent risks. This activity includes cash inspections, the handling of cash discrepancies and complaints from financial institutions, internal verification of damaged banknotes and incorrectly packaged valuables, offline destruction of valuables, admission testing of BPS machines, supplier checks, and actions related to the prevention of money laundering and terrorist financing (AML/CFT). Compliance checks are also carried out using independent video footage to ensure that staff are aware of and comply with internal instructions and procedures.

## Second-line oversight of compliance and the protection of personal data

In accordance with the code of ethics and the EU General Data Protection Regulation, the Compliance unit dealt with a total of 48 questions of interpretation, six requests for authorisation of a financial transaction and 125 benefit declarations from members of staff and management in 2023. It also handled 25 GDPR-related requests.

Pursuant to the requirements of the GDPR, the implications of several new operations likely to present a high risk to privacy were assessed. To comply with the provisions of the Belgian legislation on the processing of personal data, transfers of personal data to other authorities were formalised by means of a protocol published on the Bank's website.

On 1 June 2023, a number of new rules and standards of conduct relating to the Bank's code of ethics entered into force, transposing two ECB guidelines defining the principles of an ethics framework for the Eurosystem.

### The real estate project: an innovative strategy

The foundation stone for the new cash centre in Zellik was laid in 2022. Work has progressed well in the meantime, with completion scheduled for the spring of 2024. This will be followed by a phase during which the infrastructure will be tested, banknote processing machines and valuables transferred and staff relocated, with the aim of being fully operational by early 2025.

This step is a crucial milestone in the Bank's real estate strategy, as the renovation of the head office cannot begin until the new cash centre is up and running.

Building a cash centre in the heart of a residential area poses a number of challenges, given the impact it will have on local residents. The Bank is grateful for the understanding they have shown towards the inconveniences inherent in a project of this scale (dust, dirt and noise) and will remain attentive to the proper integration of its site in Zellik.

In terms of environmental considerations and sustainability, solar panels and a geothermal system will significantly reduce the building's dependence on fossil fuels, while minimising its ecological footprint.

Biodiversity has not been forgotten either. A substantial number of trees and shrubs will be planted on the site to encourage its ecological development, and the main building will be surrounded by a large water feature which will be naturally purified by means of aquatic plants.

#### **Facilities Department**

The Facilities Department manages the Bank's real property (buildings and technical installations) and provides general services to all entities. It ensures that these assets are constantly adapted to changing needs in terms of workspace and the specific security requirements of a central bank. Over the next few years, the Bank will be carrying out a major renovation of a portion of its property portfolio with a view to ensuring its long-term future, sustainability and energy efficiency.

In addition, the department is responsible for catering services, organising the cleaning of premises, managing the flow of goods within the Bank, the mailroom and general logistics services. It also plays an important role in the promotion of sustainability within the Bank.

#### NBB1

In 2022, the Bank commissioned a multidisciplinary engineering firm to transform, renovate and restore its headquarters in Brussels. The contract was awarded to the Statuur Consortium, which includes the architecture firms of KAAN and Low.

The renovation of its headquarters forms part of the Bank's ambitious real estate strategy, which aims to make its infrastructure more modern and efficient. The new cash centre will enable highly automated cash processing, carried out under optimum security conditions and in accordance with international recommendations. The renovation of NBB1 will bring together the Bank's staff in a modern, pleasant and user-friendly building, one that is fully adapted to the Bank's needs. By centralising its staff and activities in





The new headquarters will be an energy-neutral and future-proof building designed in accordance with circular economy principles.

a single building, the Bank will be able to make more efficient use of its operational resources. Its operating costs will also be considerably reduced thanks to the sale of the building on the other side of Boulevard de Berlaimont.

The project submitted by the Statuur Consortium aims to transform the headquarters into a sustainable, future-proof, energy-neutral building that meet the principles of the circular economy, while maximising the potential for re-use of existing materials. The idea is to create high added value with minimum intervention. The renovation is complex and the challenges daunting, as the various parts of the building, some of which have significant heritage value, need to be integrated into an efficient whole, with a focus on sustainability and energy performance.

In 2023, the initial specifications were revised in depth to take into account the changed context resulting from the pandemic and the energy crisis. On this basis, a preliminary design is being drawn up and will be definitively validated at the beginning of 2024 so that the application for the environmental permit can be submitted and works on the final project can start.

## Refurbishment works in NBB2 and NBB3

In 2023, the Bank continued to refurbish the building on the west side of Boulevard de Berlaimont (NBB2) and the office building on Place Sainte-Gudule (NBB3). The aim is to accommodate all staff in these buildings during the renovation works on the main building which are scheduled to start in 2025.

To avoid empty office space and unnecessary operating costs, the number of physical workstations for staff has been limited to 70 % of the workforce.

Overall, the works are on schedule. By the end of the first half of 2024, more than half the Bank's staff will have moved. In 2025, the remaining staff, around 700, will follow suit.





# A PASSION FOR SUSTAINABLE DEVELOPMENT

**Thibault ROY** / Project manager in the Facilities Management Department

Project manager Thibault Roy is faced with the Herculean task of bringing the NBB's main building, most of which dates from the 1950s, into the 21st century, a daunting technical feat. We sat down with him to learn more about it.

"Renovation is by definition a challenge," he explains. "Harmoniously integrating the NBB's multiple functions into a building that was never designed for that purpose is a real brainteaser. I see five major technical challenges."

#### **Renovation means innovation**

#### **Technology in the service of comfort**

"Anyone entering NBB1 needs to feel at home. A dedicated mobile app will allow colleagues to communicate with the building and with Facilities Management. Visitors will benefit from modern signage, including dynamic displays."

#### ... and of the building itself

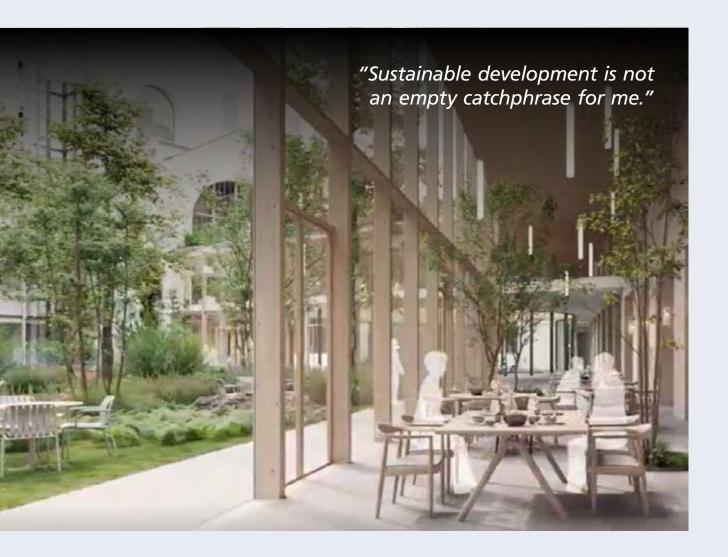
"The management of the building will be based on the data it provides. The use of BIM (building information modelling) technology will be essential in this respect."

#### No more fossil fuels

"We are opting for 100% electric heating, with the emphasis insofar as possible on autonomous production and efficient consumption. We foresee a groundwater heat pump, 2,500 solar panels and maximum insulation. The latter will be a tall order, as the building's façade is a showpiece of the cityscape."

#### No more wasted rainwater

"We will collect as much rainwater as possible via a green roof and store it in a reservoir with a capacity of at least 420 cubic metres. We will then reuse this water for sanitary purposes, among other things, or let it seep naturally into the interior garden."





#### Ready for tomorrow

"The Bank will have a flexible, modular building whose layout can be easily adapted. This means it will be possible to customise the heating, wi-fi antennas, audio system, ventilation, etc."

#### A story of personal fulfilment

"I'm an electrical engineer by training, specialising in the energy production cycle. My work has gradually evolved. I like the satisfaction of building something – seeing a project through to completion and then following up on it. That way, you remain in control of the project and are more involved.

Sustainable development is not an empty catchphrase for me. Making the NBB headquarters as passive as possible is a challenge, especially in terms of energy and the circular economy. I'm a firm believer in the latter. Quality materials should be 'recycled' to the extent possible, cleaned and reused again and again.

To achieve this, we also made the wise choice of enlisting the services of the Statuur consortium.

This project is truly a challenge. There are many parties involved, and we have to get everyone – in other words, all future users – around the table: those responsible for the cash-in-transit system, the data centre, the restaurant, the meeting areas, and so on. We've already organised several workshops to explain the spirit of the project, to present the initial plans and to get everyone on board. It wasn't easy, but we succeeded. The trust is there. The project will run all the more smoothly as a result.

Next year, in addition to internal stakeholders, we will be involving external stakeholders, in particular as part of a communication campaign on the environmental permit. Also on the agenda: the refinement of the layout plans and the building permit application. On a more practical level, geothermal exploratory drilling will be carried out using large trucks. This phase will involve some noise pollution, which is why we are reserving it for a holiday period."