

Belgian institute for postal services and telecommunications

ANNUAL REPORT 20

ELECTRONIC COMMUNICATIONS

POSTAL SERVICES

SPECTRUM MANAGEMENT

MEDIA IN BRUSSELS

NETWORK SECURITY

ipt ©	WORD	4	2.2.2. Ensuring a reliable environment	38
CHAI	PTER 1.	9	2.2.3. Follow-up of consumer needs and behaviour	r 41
THE		9	2.2.4. Safe radio equipment	
THE	DIF I		and telecommunications terminal equipmen	t 41
1.1.	Our role	10	2.2.5. Monitoring compliance with obligations	
	1.1.1. Our objectives	10	by operators in the electronic	42
	1.1.2. Our competences	11	communications sector	42
1.2.	Our organisation	12	2.2.6. Monitoring compliance with obligations	11
	1.2.1. Our status	12	by operators in the postal services sector 2.3. Scarce resources	44 45
	1.2.1. Our status 1.2.2. Our structure	12		
	1.2.2. Our structure	12	2.3.1. Numbering plan management	45
1.3.	Our interventions	13	2.3.2. Optimal use of radio spectrum	45
CTS All	1.3.1. Our expertise	13	2.3.3. Continuity and innovation	49
	1.3.2. Our interventions for the general public	18	2.3.4. Avoid and remedy harmful interferences	49
			2.4. Efficient functioning	53
	Our place on the European and international	20	2.4.1. An accessible regulator	53
	stage	20	2.4.2. Competent staff	54
	1.4.1. The BIPT as a regulator	20	CHAPTED 2, 2022 IN NUMBERC	FC
TO THE STATE OF TH	1.4.2. The BIPT as the representative	22	CHAPTER 3. 2022 IN NUMBERS	56
	of the Belgian State	22	3.1. Electronic communications	57
СНА	PTER 2.		3.1.1. Indicators of the electronic	J ,
	THE REALISATION OF OUR STRATEGIC		communications market	57
	CTIVES IN 2022	25	3.1.2. Notifications	62
			3.1.3. Networks	62
	Competition	26	3.1.4. Licences, examinations and certificates	62
	2.1.1. Market analyses	26	3.2. Postal services	65
	2.1.2. Inspection and validation of the		3.2.1. Postal market indicators	65
	reference offers	27	3.2.2. Universal service providers - licences	66
	2.1.3. Rates in line with an efficient		3.2.3. Postal points	67
	operator's costs	28	3.3. Media	69
	2.1.4. Other measures to promote competition	29	5.5. Media	05
	2.1.5. Informing to support innovation	30	ANNEXES	70
	2.1.6. Promoting connectivity	31		
	2.1.7. Market monitoring in the electronic		A. Financial report and annual accounts of the funds	71
	communications sector	31	B. Staff of the BIPT on 31 December 2022	73
	2.1.8. Market monitoring in the postal		C. Report on infringement procedures	74
	service sector	35	D. Dispute coordination	75
	2.1.9. Supporting an innovative postal service	35	E. Licences, examinations and certificates	
2.2.	lleare	37	issued in 2022	77
		37	F. Situation of the 2022 Operational Plan	79
	2.2.1. The informed consumer can compare		G. List of documents published in 2022	81



FOREWORD

The past year was first and foremost characterised by the advent of 5G in Belgium following the allocation of new 5G frequencies by the BIPT. Although the regulator had been preparing the introduction of this technology for numerous years within the framework of its mission to promote connectivity and access to very high capacity networks, its efforts paid off in 2022 with the organisation of the multi-band auction and the granting of rights of use to the traditional mobile operators (Proximus, Orange Belgium and Telenet/BASE), but also a future fourth mobile operator (Citymesh/Digi) and the limited company Network Research Belgium (NRB), an IT player in the B2B segment. With the granting of the rights of use. 5G and the opportunities for innovation it opens up are finally becoming a reality for the Belgian consumers and industry. Our country can now start to catch up with other European countries in terms of 5G deployment, as a result of which Belgium should improve its position in the DESI (Digital Economy and Society Index) ranking, which measures the digital performance of EU countries.

The role of the BIPT in developing 5G is not limited to allocating frequencies: it also oversees and supports innovation. In that context, in order to inspire Belgian companies and ensure that the deployment of 5G is accompanied by a rapid adoption of this new technology, the BIPT published a study identifying potentially inspiring 5G implementations abroad. The information website for the general public about5G. be, which answers the questions raised by the deployment of 5G, is clearly part of the same approach.

The year 2022 also saw an acceleration in the deployment of optical fibre, a development that the BIPT is encouraging and stimulating. The website Infofibre.be was complemented in 2022 by a map showing the current state and the planned deployment of optical fibre. The BIPT's vade mecum on fibre is a precious tool to speed up the roll-out of optical fibre. It provides users with information on applicable regulation, administrative procedures and best practices to help operators wishing to deploy optical fibre networks in Belgium.

With the granting of rights of use, 5G and the opportunities for innovation it opens up are becoming a reality.









To the list of major technological advancements, one can also add the arrival of the Wi-Fi 6E standard, which will offer a capacity and efficiency superior to the previous Wi-Fi standards.

In 2022, the electronic communications market also experienced economic developments. The market was further reinforced following the various acquisitions of alternative operators by the three main operators. After the takeover of Jim Mobile and BASE by Telenet, Orange Belgium took over VOO. Without prejudice to the ongoing investigation before the Belgian Competition Authority and the pending legal proceedings before the courts. Proximus recently took over edpnet, after the previous acquisitions of Scarlet and Mobile Vikings. We are also seeing the emergence of new partnerships or joint ventures, mainly in infrastructure, such as MWingz, or Fiberklaar and Unifiber. Antenna site management companies have also changed the landscape and the cost structure for investment and maintenance of operators' antennas.

The arrival of new operators also opens up new possibilities. The regulation of this ever-changing market therefore remains crucial: a recent study showed that the measures imposed on dominant operators since 2018 had had a positive impact, without compromising investment in next-generation networks. By stimulating competition, the regulation put in place has given consumers access to a wider offer in 2022 than in 2018; they also get more for their money when they buy convergent offers.

Joint ventures established by Proximus, within the framework of optical fibre deployment, with EQT Infrastructure and Eurofiber respectively.





^{*} Joint venture between Orange Belgium and Proximus which aims to develop a mobile access network by sharing telecommunications equipment.

FOREWORD





The BIPT continued to play its role in fostering healthy competition and safeguarding access for the market players. On the electronic communications market, the BIPT took the first steps towards the next cycle of analyses on access to the connection cable (connecting the end-user to the operator's network) on optical fibre and coax cable networks. Allowing access to this part of the network will encourage alternative operators to enter the market and stimulate competition. The BIPT also started to reflect on the implementation of the freedom of choice of the modem for broadband and television services. It also conducted preparatory studies for the upcoming review of the broadband and broadcasting wholesale markets. On the postal market, the BIPT reviewed the analytical accounting

of bpost for 2020, which was found to be in conformity. The BIPT analysed the tariffs of the incumbent operator for certain cross-border parcel delivery services. This analysis prompts the BIPT to conduct a more detailed survey of the cost distribution within bpost's analytical accounting in 2023.

Efficient regulation necessarily involves a close monitoring of the markets. In the electronic communications sector, national and international price studies are conducted each year. In 2022, the BIPT conducted, for the first time, a study on the technical quality of fixed and mobile broadband networks in Belgium, and more particularly on coverage in order to supplement those reports. This first edition shows good results in terms of network

coverage, for both fixed and mobile networks. In the postal sector, the postal observatory includes reliable economic data to objectively understand the state of the market and monitor developments in the postal sector.

This technical and economic knowledge of the markets that the BIPT holds is also invaluable for helping the political authorities to adopt reforms. In 2022, the BIPT thus collaborated with other executive authorities to reform the social tariffs related to electronic communications. At the request of the federal government, the BIPT also shared its expertise of the parcel delivery market within the framework of the drafting of a bill aiming at improving the working conditions of subcontractors distributing parcels in Belgium.

Moreover, the BIPT ensures that users are adequately informed about their rights and the opportunities at their disposal in order for them to benefit from the positive effects of market regulation. For instance, in 2022, the BIPT published guidelines to clarify the use of the term "unlimited Internet" on the Belgian electronic communications market. The BIPT is also continually feeding the comparison tools it makes available to the public, such as the tariff simulator, which was extended in 2022 to include microenterprises and the self-employed. A tariff simulator has also been finalized for postal services, enabling users to look for and compare alternatives for sending 2 kg parcels The simulator enables users to compare prices, but also to examine the product features that are important to them.



FOREWORD



Over the past year, the BIPT examined the sustainability of postal activities and the environmental impact of the electronic communications sector. At the postal level, the Institute organised a public survey, with the aim of collecting opinions and receiving proposals on the possibilities for a more environmentally-friendly distribution of parcels and, in particular, to make lastmile delivery more sustainable. Regarding the sustainability of the electronic communications sector, the BIPT commissioned a study analysing the ecological footprint of telecommunications networks over the last four years. The results show that the sustainability issue is already taken into account in the operators' current practices and strategic objectives. Based on the surveys and studies carried out in 2022, the BIPT will continue to monitor the markets and assess the relevance of implementing new sustainability measures.

The BIPT's expertise is recognized at both national and international level. As regards electronic communications, the BIPT played a key role in 2022 as outgoing chairman of BEREC, the Body of European Regulators for Electronic Communications. At the postal sector's level, the BIPT exercised Belgium's renewed mandate as a member of the Council of Administration of the Universal Postal Union (UPU) and acted as vice-chair of the Council of Administration for the European region. At national level, the BIPT built new partnerships and extended its field of competence. It has joined the Gaming Commission to combat illegal online gambling and betting. The BIPT has also become the competent authority to settle copyright disputes between online service providers and press publishers. The BIPT's powers may also evolve over the next few years to regulate the digital economy: online platforms, social networks, streaming services, connected objects, mobile applications, etc.

This annual report describes the achievements of BIPT's missions during the year 2022, bringing the three-year strategic plan 2020-2022 to a close. The latter was successfully completed thanks to the day-to-day work of all members of the BIPT's personnel. The Council wishes to congratulate its employees on the quality of their work and thank them for their commitment.

The members of the Council wish you an insightful reading and are ready to answer any questions.



Axel Desmedt Member of the Council



Bernardo Herman Member of the Council





Luc Vanfleteren Member of the Council



Michel Van Bellinghen Chairman of the Council





2022: key figures

The multi-band auction resulted in granting rights of use to five companies: the three mobile operators were joined by a consortium presenting itself as the future 4th mobile operator and by an IT player active in the B2B segment.



5

2022



€2,31 billion

Investment in electronic communications* reached a record high of € 2.31 billion in 2022. On an annual basis, there was a 33% increase following the switch from copper to fibre.

2,569



For the first time since the pandemic, maritime and amateur radio examinations resumed on a weekly basis throughout the year. As a result, 2,569 candidates took an exam in 2022.

791

By the end of 2022, there were 791 parcel lockers in Belgium, i.e. an increase of 243 units in one year. This deployment, which is set to continue over the next few years, reflects the growing importance of parcels within postal services.



^{*} Excluding licences and capital expenditure related to the leasing of telecommunications infrastructure.

The annual report at a glance

CHAPTER 1

The BIPT. The strategic plan forms a common thread in the exercise of the BIPT's powers, to ensure a reliable and competitive communications environment for everyone. The BIPT does not only exercise its powers at the national level. It also ensures that the interests of the Belgian postal and telecommunications 2022 sectors are preserved by assuming various international responsibilities.



CHAPTER 2

objectives in 2022. The implementation of the BIPT's strategic objectives is based on four strategic axes: competition, users, scarce resources and efficient functioning. This chapter explains how the four strategic axes were translated into action via the 2022 operational plan and the day-to-day operation of the BIPT.

2022 in numbers. This chapter describes the main trends observed by the BIPT on the electronic communications, postal service and media markets. The BIPT closely monitors the regulated market developments and publishes detailed information: the postal observatory reflects the postal market trends, whereas the situation on the electronic communications and television markets is the subject of an annual study, published as a BIPT communication.



Achieving the strategic

ANNEXES

Additional information.

In addition to a financial report and the annual accounts of the funds for the universal services, the annual report must include an overview of the infringement proceedings initiated. You will find this and other relevant information, such as the BIPT's establishment plan, in the annex. You will also find extra information about the BIPT's activities in 2022.





1.1. Our role

The BIPT is the federal regulatory body responsible for regulating the electronic communications market, the postal market, the electromagnetic spectrum of radio frequencies and the radio and television broadcasting in the Brussels-Capital Region.

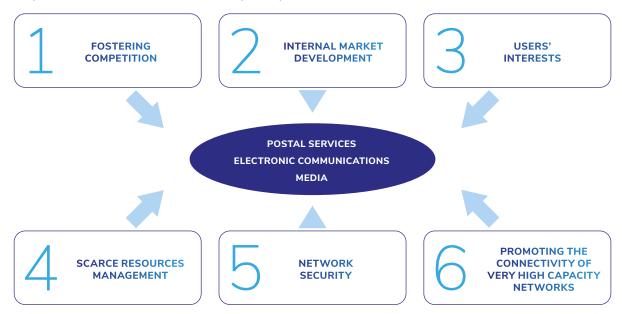
1.1.1. Our objectives

In its various fields of competence (electronic communications market, postal market, electromagnetic spectrum of radio frequencies and network security), the BIPT must accomplish a series of objectives which mainly stem directly from the European and Belgian regulatory frameworks.

To achieve them, the BIPT draws up a strategic plan every three years. The year 2022 is part of the <u>Strategic Plan 2020-2022</u>. This plan outlines the strategic axes and priority fields of activity of the BIPT, thus contributing to the good administration of the Institute. Established after consultation with the stakeholders, this plan also reflects the experience of the BIPT and is its response to the changes in its operating environment.

Missions. Electronic communications, postal services and media in the Brussels-Capital Region are the BIPT's main fields of activity. The BIPT's activities are guided by six missions:

- fostering healthy competition and maintaining market access;
- contributing to the development of a domestic market of efficient networks and services:
- protecting the users' interests while taking account of social inclusion, a high level of protection, clear information and transparency;
- managing scarce resources such as radio frequencies and numbering resources;
- ensuring network security;
- promoting connectivity with high-capacity networks and access to them.



1.1. Our role

Values. The BIPT fulfils its duties in accordance with the following values:

- independence: the BIPT adopts an objective, neutral and consistent attitude, without conflicts of interest, prejudice or improper influencing. The BIPT collaborates with the competent minister(s), the Federal Parliament, the companies in the sectors regulated by the Institute, and other public bodies and stakeholders. These contacts are desirable and often necessary to ensure a functioning that is attuned to the developments in society and the regulated markets, on the one hand, and stable and predictable, on the other hand. The BIPT must therefore make sure to defend and preserve its independence. From that perspective, the specific status and the financial autonomy are the best guarantees;
- reliability: as a centre of expertise, the BIPT wishes, when adopting a position, to be a reliable and competent partner for all stakeholders. This reliability is supported internally by the professionalism, teamwork and agility of the BIPT;
- transparency: this is part of the monitoring of the BIPT's intervention. It is achieved via openness and visibility, both internally and externally, on the one hand, and dialogue and accessibility, on the other hand. Decisions are thus duly motivated and often subject to prior consultation.

Vision. In the text expressing its vision, the BIPT summarises as follows what it aspires to create and defend in the field of electronic communications, media and postal services:

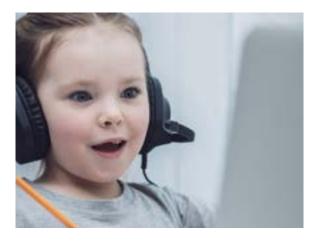
"A reliable and competitive communications environment for everyone".

1.1.2. Our competences

The BIPT has several duties. It is thus:

- the regulator of the postal and electronic communications markets: il exécute les missions déterminées par la loi et veille au respect des législations en matière de services postaux et de télécommunications;
- the manager of the electromagnetic radio frequency spectrum: the BIPT is responsible for the radio frequency spectrum and numbering space to ensure that they are used as efficiently as possible. The BIPT also fulfils the role of "police of the radio waves" to put a stop to any form of harmful interference:

 the media regulator in the Brussels-Capital Region: the BIPT ensures that operators comply with the specific regulation on radio and television broadcasting, provided that the activities of the broadcasting company cannot be specifically related to the French Community or the Flemish Community.



The Act of 19 June 2022 transposing the European directive on copyright and related rights in the Digital Single Market¹ entrusted the BIPT with a new competence to settle disputes regarding the valuation of related rights granted to press publishers for the online exploitation of their press publications by information society service providers. Therefore, the BIPT may determine the remuneration due to a publisher, provided that the parties have at least

1. Act of 19 June 2022 transposing Directive (UE) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC.





1.1. Our role

previously attempted to reach an agreement in good faith and have negotiated to this end for a minimum period of 4 months.

The BIPT is also a member of the "Conférence des régulateurs des médias et des télécommunications" (Conference of telecommunications and media regulators or CRC) which includes the CSA ("Conseil supérieur de l'Audiovisuel"), the Medienrat and the VRM ("Vlaamse Regulator voor de Media") as well. Each draft decision of the BIPT on electronic communications networks is submitted to the other three authorities.⁴

In performing its duties, the BIPT may:









- take administrative decisions and impose administrative sanctions;
- issue opinions on its own initiative or at the request of the Minister or the Chamber of Representatives;
- conduct studies, gather all useful information or organise a public consultation;
- act as a conciliator in case of disputes.

1.2. Our organisation

1.2.1. Our status

Established in 1991, the Belgian Institute for Postal Services and Telecommunications is the federal regulator for the postal and telecommunications sectors. It came into being in 1993. The Act of 17 January 2003 on the status of the regulator of the Belgian postal and telecommunications sectors bestowed upon the BIPT its independence. In 2023, the BIPT will celebrate its 30 years of activity and the 20th anniversary of its statutes act.

The Institute is financially autonomous and is financed by contributions of the players of the regulated sectors.

The democratic monitoring of the BIPT's operation is, however, ensured and is exercised through the following instruments:

- Every three years, a Strategic Plan is drawn up and presented to the Chamber of Representatives.
 It is the backbone of the annual operational plans;
- Each year, the BIPT publishes a report on its activities and the developments in the postal service and telecommunications markets for the stakeholders;

- The Institute's draft budget and its accounts are approved by the Ministers of Budget and Finance.
 The draft budget is published and the budget is also submitted to the Chamber of Representatives.
 The annual accounts are audited by the Belgian Court of Auditors;
- The decisions of the BIPT may be the subject of full remedy actions brought before the Market Court whose decision shall be in the form of an interim order. The Court may suspend the BIPT's decisions and annul them with retroactive effect.

1.2.2. Notre structure

The BIPT is run by the Council, made up of a chairman and three members; the four of them are appointed by the King for a period of six years. The Council is currently composed of Michel Van Bellinghen, Chairman of the Council, Axel Desmedt, Luc Vanfleteren and Bernardo Herman, Members of the Council.

The BIPT's organisational chart contains nine horizontal departments (the Registry, the Communications Department, the Budget and Finance Department, the Translation Department, the International Relations Department, the IT Department, the Legal Department, the Personnel Management Department and the Purchasing and Logistics Department) and six vertical departments (the Telecom Market & Media Department, the Monitoring Department, the NetSec Department, the Assignments Department, the Consumer Department and the Postal Market Department).

^{2.} Cooperation Agreement of 17 November 2006 between the Federal State, the Flemish Community, the French Community and the German-speaking Community on the mutual consultation when the regulatory authorities in charge of telecommunications or radio and television broadcasting draw up legislation regarding electronic communications networks, exchange information and exercise powers regarding electronic communications networks.







1.3.1. Our expertise

Based on its experience and its contacts with the telecommunications and postal markets, the BIPT is regularly involved in the preparation of strategic documents or decisions in these sectors. Examples of interventions in 2022 are detailed below.

Preparation of the electronic communications sector regulation.³ Following the transposition of the European Electronic Communications Code, which reforms the regulatory framework, the BIPT participated in the preparation of drafts of Royal Decrees with a view to implementing the law. These include the drafting of the Royal Decree of 30 July

2022 on the refund of prepaid call credit in the event of a number transfer.⁴ Other drafts are still being prepared, such as the Royal Decree on the portability of e-mail addresses⁵.

The BIPT also participated in the drafting of the Royal Decree of 10 February 2022 on the central number database. The Royal Decree implements Article 106/2 of the Act of 13 June 2005 on electronic communications, particularly by defining the operating procedures for the database, the purpose of which is to centralise subscriber data for use by emergency services or, with the subscriber's consent, for publication in digital directories and directory enquiry services.

Furthermore, the BIPT started the preparation of draft texts transposing the directive on the accessibility requirements for products and services, i.e. bills and Royal Decrees respectively on certain types of radio equipment, electronic communications services and audiovisual media services in the bilingual Brussels-Capital Region. These drafts were submitted for <u>public consultation</u> from 10 May to 13 June 2022.

In early 2022, the BIPT sent the Minister a report on the operators' reactions to the <u>public consultation</u> on the draft Royal Decree aimed at adapting the Easy Switch procedure⁷ to certain new requirements of the European Electronic Communications Code and improving them on the basis of the recommendations made by BIPT in its report on the evaluation of Easy Switch. After being informed of the Minister's political choices, the BIPT finalised the draft Royal Decree and issued a favourable opinion on it on 10 May 2022. The amending Royal Decree of 31 August 2022 was published on 3 October 2022 in the Belgian Official Gazette⁸; it will officially enter into force on 1 October 20239. One of the new measures is the introduction of a control number to prevent erroneous migration data from corrupting the operators' transfer systems, with the risk of double billing. Another measure regards the extension of the Easy Switch procedure to standard tariff plans intended for companies and non-profit organisations. As the introduction of these measures requires coordination among the operators, the

^{9.} Given that 1 October 2023 falls on a Sunday, the amendments with operational impact will enter into force on Monday 2 October 2023.





^{3.} For a complete overview of the current and future legislative work in the electronic communications sector, we encourage readers to refer to the 2023 Operational Plan.

^{4.} Royal Decree of 30 July 2022 determining the detailed rules for applying the reimbursement of possible remaining credit within the framework of Article 11, § 7, subparagraph 6, and Article 111/2, § 1, subparagraph 5, of the Act of 13 June 2005 on electronic communications.

^{5.} Decree implementing Article 121/1, § 2, subparagraph 2, of the Act of 13 June 2005 on electronic communications.

^{6.} Directive (EU) 2019/882 of the European Parliament and of the Council of 17 April 2019 on the accessibility requirements for products and services.

 $^{7. \, \}text{The Easy Switch procedure facilitates the change of fixed Internet and/or television provider, as well as the change of bundle provider: the new operator is responsible for the change of provider, unless the user explicitly indicates that he or she does not wish this.}$

^{8.} Royal Decree of 31 August 2022 amending the Royal Decree of 6 September 2016 regarding the migration of fixed line services and bundles of services in the electronic communications sector, Belgian Official Gazette, 3 October 2022, p. 71194.

BIPT has also organised working groups gathering the operators concerned.

The BIPT contributed to the drafting of numerous texts regarding security matters. Firstly, it participated in the drafting of two acts: the Act of 17 February 2022 amending various provisions regarding electronic communications with a view to introducing additional security measures for the provision of mobile 5G services and the Act of 20 July 2022 on the collection and retention of identification data and metadata in the electronic communications sector and the provision of such data to the authorities. The BIPT also participated in the preparation of several Royal Decrees¹⁰, as well as in the draft circular on the provision by operators to the Belgian competent authorities of identification data and metadata retained¹¹.

Preparation of the postal sector regulation¹². The BIPT also contributes to the preparation of drafts amending the postal regulatory framework. In 2022, these discussions mainly concerned environmental and social sustainability matters.

A new bill amending the Act of 26 January 2018 was submitted to the federal government, with a view to improving the working conditions of Belgian parcel deliverers. At the request of Deputy Prime Minister and Minister of Post, Petra De Sutter, the BIPT organised a public consultation on a draft bill amending Article 5 of the Act of 26 January 2018 to

impose on postal service providers of a certain size the use of a minimum percentage of employees or temporary workers. The consultation was held from 11 March to 6 Avril 2022. On several occasions, the BIPT has been involved in sharing its expertise on the postal parcel delivery market. These provisions will have to be the subject of implementing measures drawn up with the various competent authorities.

There is another draft Royal Decree on the implementation of new essential requirements regarding environmental information. To that end, the BIPT organised a public survey from 14 July to 9 September 2022, at the request of Deputy Prime Minister and Minister of Post, Petra De Sutter. The purpose of the survey was to collect opinions and proposals regarding possibilities for a more environmentally-friendly distribution of items related to e-commerce in Belgium. In a context of booming e-commerce and parcel delivery, this survey was an opportunity for stakeholders to inform the government and the BIPT of existing measures and initiatives and, in particular, of the obstacles to improving the sustainability of the last-mile delivery. The input received during this survey was communicated to the office of Minister Petra De Sutter.

A new Royal Decree on postal services was adopted on 14 March 2022.¹³ This review, prepared in 2021 in collaboration with the competent departments of the BIPT, adapts the current framework to the recent technological developments, the market developments and legislative changes.

With a view to the Belgian presidency of the European Union in the first half of 2024, the BIPT also contributed to discussions at national and European



^{10. -} Draft Royal Decree on the data to be retained by the electronic communications operators for the authorities, pursuant to Articles 126 to 126/3 of the Act of 13 June 2005 on electronic communications, and the statistics on the communication of these data to the authorities;

^{11.} Draft circular of the Minister of Telecommunications on the provision by the operators to the competent Belgian authorities of identification data and metadata retained pursuant to Articles 122, 123, 126, 126/1, 126/3 and 127 of the Act of 13 June 2005 on electronic communications.





⁻ Draft Royal Decree amending the Royal Decree of 27 November 2016 on the identification of the end-user of public electronic communications services provided by means of a prepaid card;

⁻ Draft Royal Decree on the ministerial authorisation for the deployment of a 5G network;

⁻ Draft Royal Decree on the location requirements for 5G networks.

level in favour of the need to revise the Postal Directive 97/67. Within that framework, the BIPT organised many discussions with the European Commission, the Presidency of the EU Council and the Member States.

Expertise in the coordination of projects of the Federal Government. In July 2022, at the initiative of the Minister of Telecommunications, Petra De Sutter, the Federal Public Service (FPS) Economy initiated a call for projects to subsidise 5G pilot projects. The call for projects was part of the programme "Telecom to the next level - towards sustainable and innovative solution" under the Belgian recovery and transition plan. The purpose of this call for projects was to help companies overcome the delays in the deployment of 5G, by supporting 5G pilot projects offering innovative solutions through subsidies, and thus make the social and economic potential of 5G technology more tangible. As a member of the project selection committee, the BIPT assisted the FPS Economy and the Minister of Telecommunications in

The BIPT regularly shares its expertise in the regulated sectors.

evaluating the projects selected as part of the call for 5G projects. Following this call for projects, 20 projects received a total of \le 19,017,600 in subsidies out of an available budget of \le 24 million¹⁴.

In 2022, the BIPT also participated in the "white zones" call for projects of the Federal Government, the purpose of which was to cover some of the households which do not yet have access to very high capacity electronic communications networks offering download speeds of at least 100 Mbps. The BIPT shared its expertise in a number of areas: it first identified areas which could benefit from subsidies by observing the Broadband Guidelines defined by the European Commission. The BIPT then drafted the technical part of the call for tenders and laid down the award criteria as well as the methodology for subsidising these areas.

Expertise for the Chamber of Representatives. At the request of the Committee for Economy, Consumer Protection and the Digital Agenda of the Chamber of Representatives, and of the Minister of Telecommunications, the BIPT gave an opinion on Draft Resolution No. 2284/001 on the recognition of Internet access as a basic need on 21 April 2022. In that opinion, the BIPT stresses in particular that the regulation of Internet access as part of the universal service has already been updated in the Act of 13 June 2005 on electronic communications (with regard to both availability and affordability). The BIPT therefore considered that it was not necessary to

introduce other regulatory provisions with the same purpose. Regarding the question of establishing a generalised access to certain services considered as essential (and the possible definition of a zero rating of certain essential services), the BIPT asked that the economic and technical implications of implementing this intention be duly taken into account.

Analysis of telecommunications tariffs. As in previous years, the BIPT conducted a comparative international price study comparing the level of telecommunications tariffs on the Belgian market with those in neighbouring countries. This study is conducted internally by the BIPT and can be seen as complementary to the international benchmark carried out each year by the European Commission. The BIPT study was the subject of a Communication of 14 December 2022 regarding the comparative study on the price level of telecom products in Belgium and in the neighbouring countries.

The tariffs chosen for comparison are those of the cheapest offers that meet at least the telecommunications needs that must be satisfied for a certain number of household profiles. Results are generated for the mobile market, the fixed Internet market and bundles. However, the analysis is not limited to a simple ranking of price levels in the countries studied. It also takes a closer look at the changes that have taken place in Belgium since the previous edition and the factors behind them. This allows the reader to form a more balanced opinion on

^{14.} The budget of € 24 million was set in accordance with the decision of the Council of Ministers of 23 December 2021 concerning the investment projects of the recovery and transition plan.





^{12.} For a complete overview of the current and future legislative work in the postal sector, we encourage readers to refer to the 2023 Operational Plan.

^{13.} Royal Decree of 14 March 2022 on postal services (Belgian Official Gazette of 18 March 2022).

Belgian price competitiveness in an international context.

Tariffs were also analysed at the national level. Once a year, the BIPT takes a snapshot of the applicable rates on the residential market for electronic communications services. The idea is to give consumers all the "keys" they need to determine the minimum expenses to cover their telecoms needs. To that end, various types of solutions have been analysed by comparing the results of commercial offers and also mixing¹⁵ several of them as regards the convergent offers¹⁶.

This exercise is intended to be pragmatic and takes as its starting point the real needs of consumers, which are illustrated using a dozen profiles that are sufficiently differentiated (student, single parent, cord-cutter profile, family with teenagers, etc.) to give a broad and varied perspective of the telecommunications market (standalone mobile, standalone Internet, 2P mobile and Internet packs, multi-play packs, etc.).

Despite significant inflation having an impact on telecoms price levels in 2022, this study has shown that by being agile and comparing plans regularly, it was still possible to realize substantial savings, in particular by aiming to increase the mobile data included in packages. The telecoms market is indeed changing at the pace of technology. It is thus important to compare on a regular basis. A summary



15. A mix means the combination of two plans to meet the requirements of a given profile.

16. A convergent offer is a pack including at least a mobile component.



of the characteristics of the 10 profiles and the cheapest results for each operator are available in just a few clicks on the BIPT website¹⁷.

The BIPT has 9 years of experience in carrying out this tariff comparison. Each year, hundreds of tariff plans are analysed based on regularly updated consumption profiles, to better reflect changes in the market and the consumers' reality.

Within the framework of the Communication of 16 July 2022 on the evolution of the broadband and television markets since Q1 2018, the BIPT also analysed prices and particularly the evolution of the actual Belgian telecommunications tariffs since the entry into force of the regulation in 2018. The price analysis is part of a much broader study, which takes into account the evolution of the products offered, the characteristics of telecommunications bundles, the operators' market share and the impact of regulation. The results of the aforementioned works will be particularly useful for the ongoing analysis of the broadband and broadcasting markets.





European level have given the BIPT's experts a unique opportunity to expand their knowledge in the field and to work with other regulators.

At the national level, the BIPT cooperates with numerous institutional partners (such as the FPS Economy, the FPS Policy and Support but also the police, the judicial authorities and other regulators) to analyse, follow up and, if necessary, transpose a wide range of European legislative initiatives into national legislation. In that regard, examples include work on the Digital Markets Act, the Digital Services Act, the Data Act, the Al Act, the Directive on security of network and information systems (NIS2) and the Cyber Resilience Act. The BIPT also supports the Belgian Permanent Representation to the EU in the event of questions on these subjects or similar initiatives regarding the regulation of new digital economies.

At the European level, the BIPT played a key role in 2022 as outgoing chair of the Body of European Regulators for Electronic Communications, or BEREC. In that context, the BIPT was in charge of the international relations of BEREC and was maintaining contacts with partner networks and international organisations in connection with electronic communications. The Chairman of the BIPT Council participated in the study tour of the Miniboard of BEREC in the United States in September 2022, the objective of which was to learn more about the trends and challenges to come in the United States, by analogy with BEREC's priorities for 2022, such as the digital economy, 5G, broadband access and affordability, as well as sustainability.

Within the Universal Postal Union (UPU), the BIPT carried out Belgium's renewed mandate in 2022 as a member of the Council of Administration and, more particularly, as vice-chair of the Council of Administration for the European region. As vice-chair, the BIPT, on behalf of Belgium, is a member of the Management Committee of the UPU Council of Administration, within which the Institute prepares the work of the Council of Administration.

17. https://www.bipt.be/consumers/national-benchmarking-2022



1.3.2. interventions for the general public

Monitoring

As part of its remit, the BIPT has a specific mission to monitor the legal provisions, the compliance with which it monitors, which is put directly at the service of consumers.

In 2022, the BIPT continued its monitoring of the Easy Switch procedure, which facilitate the change of operators. The BIPT focused on how operators presented the Easy Switch procedure to their (potential) subscribers. To that end, the documents used by the technicians as well as the websites of the operators concerned were scrutinised. The results of these inspections were positive: the Easy Switch procedure is presented clearly and correctly, and as the standard solution (and not just as an option). In order to verify how sales staff presented the Easy Switch procedure in the phone shops, inspectors acting as "mystery shoppers" for the BIPT visited several of the larger operators' shops. These visits revealed that the information given to customers concerning Easy Switch were correct, except in a number of shops of only one operator. The shops of this operator will be inspected once more in 2023.

Throughout the year, the BIPT also carries out on-the-spot checks to verify compliance with the regulations in a variety of domains: the provision of identification data by operators to the police, compliance by companies with the obligations relating to the identification of prepaid cards or the compulsory notification to the BIPT by providers of electronic communications services or networks. The BIPT inspectors also participate in Europewide measurement campaigns. In 2022, the BIPT took part in the European campaign on compliance with emission standards of certain types of radio equipment, that are determined at European level to protect consumer health against thermal effects of radio waves. Following that campaign, several pieces of equipment were sent to a laboratory for conformity check.

The BIPT also checks refurbished smartphones that are sold on the Belgian market.

Refurbishing smartphones originally coming from the European market is generally not a problem as they were compliant with the RED Directive when they were first commercialised. However, the refurbishing should not compromise the conformity of the product.

The same cannot be said for the refurbishing of smartphones from markets other than Europe, such as the US. As they have not undergone the verification procedures laid down in the RED Directive, they cannot be placed on the European market, refurbished or not. Furthermore, most of them do not bear the CE marking.

Selling them, let alone refurbishing them, is prohibited in Belgium and in Europe.

In 2022, the BIPT was confronted with several cases of non-compliant refurbished products being introduced on the market, leading to the seizure of several thousand of units.

One of the refurbishing companies concerned submitted an interim application against the BIPT. The judgement confirmed that the BIPT had acted lawfully and was fulfilling its role of monitoring the conformity of equipment made available on the Belgian and European markets to the full.

The BIPT also took the initiative to regularly inform retailers and retailer associations on the regulation regarding refurbished radio equipment. For example, they were made aware of the need to systematically check for the presence of the CE marking.

The aim of this action is to raise awareness among players on the Belgian and European markets for the importance of abiding by compliance regulations when selling refurbished radio equipment, and thus ensure the safety of users. By encouraging transparency and compliance, the BIPT contributes to a more responsible and sustainable market for refurbished smartphones in Belgium and Europe.

Finally, the BIPT <u>monitors</u> compliance with European Regulation 2015/2120 on net neutrality. The purpose



is to ensure that operators observe the rules regarding the neutrality of the Internet.

Regarding the postal sector, the BIPT's missions include monitoring compliance with the Act of 26 January 2018 on postal services, collecting data on the postal market in accordance with Article 14 of the Act of 17 January 2003 on the status of the regulator, for example via its postal observatory, and ensuring the implementation of EU Regulation 2018/644 of 18 April 2018 on cross-border parcel delivery services.

Informing

In order to address the general public's lack of awareness of the BIPT's role and the services/tools it makes available, the BIPT has continued to develop the information videos based around the "BIPT family": the parents (Iza and Benoît) and their children (Pablo and Thalia).

In previous years, animated instructional videos were produced regarding the Easy Switch procedure, the dangers of non-compliant radio equipment, the use of pointpostal.be, keeping your e-mail address when switching operators, the automation of besttariff.be, and more. Last year, the following topics were addressed:

Licences for private radio communications;

- The postal tariff simulator;
- The self-employed/SME section on the tariff comparison tool <u>www.besttariff.be</u>.

The scenarios were written and the videos were produced in 2022. However, it is in 2023 that these videos will be the subject of a social media campaign and will be published on the BIPT YouTube channel. By targeting the public specifically based on age and interests, the BIPT wants to reach the widest possible audience in order to raise awareness.

Besides the production of videos, the BIPT is also present on social media to react to current events, give tips and tricks to postal and telecom service users, or draw their attention to certain developments in the postal service and telecommunications sector or the BIPT's activities. To do so, the BIPT uses sponsored and unsponsored publications. In 2022, the fibre optic map was highlighted, as well as advice on how to improve the Wi-Fi connection, sustainable postal delivery activities, the various recruitments within the BIPT, modified mariphone channels, the value of price comparison, etc.

To support the dissemination of accurate information on the subject of 5G before and after the multi-band auction, the website <u>About5G</u> was regularly fed with objective and independent information throughout the year (see section 2.3.3).

In addition to providing information to the general public, the BIPT runs targeted information campaigns and takes part in trade fairs and conferences in its areas of expertise. These include the distribution of information brochures and information sessions on the Radio Equipment Directive (RED), which it offers to economic operators and business associations such as Agoria. In 2022, the BIPT also led a large-scale information campaign directly targeting mariphone owners in view of the modification of the channels. In collaboration with the Luxembourg regulator, the BIPT also organises conferences on the implementation of the network and information systems security regulation ("NIS" regulation).





The national regulation of electronic communications and postal services is broadly determined by the beacons set out at the European level. The BIPT's active participation as a national regulator within the European organisations concerned is therefore of great importance to cast a light on the specific national circumstances.

Furthermore, the BIPT also acts as a representative of the Belgian State at the European and international levels in the fields of electronic communications and postal services.

1.4.1. The BIPT as a regulator

BEREC. The Body of European Regulators for Electronic Communications or BEREC was established by a European regulation¹⁸. BEREC contributes to the development and better functioning of the internal market for electronic communications networks and services, by aiming to ensure a consistent application of the EU regulatory framework. BEREC performs its tasks in collaboration with the national regulatory authorities (NRAs) and the European Commission. It must improve cooperation among NRAs but also between the NRAs and the European Commission.

As vice-chair, the BIPT remained active within the BEREC Miniboard to support the 2022 BEREC Chair.

Furthermore, the above-mentioned study visit to the United States organised by the BIPT for the Chair and

Vice-Chairs of BEREC, resulted in the conclusion of a new cooperation agreement between the <u>Federal Communications Commission</u> (FCC) and BEREC¹⁹.

In 2022, the BIPT contributed to the implementation of the BEREC Work Programme 2022 under the chairmanship of the <u>ACM</u>, the Dutch regulator. The priorities apply the 2021-2025 Strategy and include implementing the code, sustainability, roaming, open Internet, digital markets, new technologies, the 5G value chain, the Internet ecosystem, open RAN²⁰, AI²¹ and business services.

In 2022, BEREC actively provided a consultative contribution to the European legislative institutions, the Commission, the European Parliament and the Council.

Subjects such as sustainability, open Internet, fair share, bridging the digital divide, the Digital Decade policy programme (DDPP), promotion of VHCN²², AI, the Data Act, DSA²³ and DMA²⁴, and 5G were thoroughly discussed in 2022. In 2022, BEREC published about forty reports, opinions or quidelines.

Within the framework of the outgoing presidency, the BIPT supported the BEREC Chair during four plenary meetings.

Twelve different working groups were closely followed-up by BIPT experts.

In 2022, several events were also organised by BEREC, such as a Stakeholder Forum and various workshops.

IRG. The Independent Regulators Group gathers 37 members, all European telecom regulators. The IRG

In its areas of competence, the BIPT represents Belgium at the European and international levels.

acts as a facilitator for its members and provides flexible support to fulfil their role. They work on improved collaboration, mutual assistance and the sharing of information among regulators. In 2022, Michel Van Bellinghen was also outgoing chair of this group. The BIPT participated in several workshops and webinars organised by the IRG.

ERGP. The ERGP, or European Regulators Group for Postal Services, is a consultative and deliberative body gathering the postal regulators and delivering opinions to the European Commission in the field of postal services.

^{22.} Very High Capacity Networks. These are very high-capacity electronic communications networks which are entirely made, at least up to the distribution point, of optical fibre elements or which are able to offer similar network performance under usual peak-time conditions.





^{18.} Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Office.

^{19.} You will find more information in the report.

^{20.} Open RAN (Radio Access Network) is a new radio access network concept that aims to enable telecommunications operators to use hardware and software solutions from different suppliers, even within the same geographical area.

^{21.} Artificial intelligence, or AI, refers to technologies programmed to analyse the world around them and take action to achieve specific goals. This refers to a machine's ability to reproduce behaviours associated with humans, such as reasoning, learning, planning and creativity.

The ERGP Work Programme 2022, drafted in 2021, was part of the ERGP Mid-term Strategy 2020-2022, which was built around three axes, namely:

- 1. The review of the postal sector;
- Promoting a competitive EU internal market for postal services;
- Empowering end-users and ensuring a useroriented universal service.

In 2022, the BIPT participated in two plenary meetings, the "Medium Term Strategy 2023-2025" task force and five working groups on the following subjects: "Regulatory Framework", "Sustainability", "Access and Interoperability", "Cross-border parcel delivery" and "Consumers and Market Indicators". The BIPT led two working groups. The first one, "Consumers and Market Indicators". led in cooperation with the Maltese regulator, MCA, issued two external ERGP reports: "ERGP Report on Quality of service, consumer protection and consumer handling 2020", "ERGP Report on core indicators for monitoring the European postal market", as well as an internal report "Internal Feasibility study of QoS indicators for the parcel market in the context of the development of eCommerce in the postal sector". The second working group "Sustainability", led by the BIPT in cooperation with the Hungarian regulator, NMHH, issued an external report in 2022: "ERGP report on environmental sustainability in the postal sector" and

also organised an ERGP internal workshop in sustainability strategies and regulation.

CERP. The European Committee for Postal Regulation or CERP ensures a good coordination between its members and seeks to promote compliance with the "acquis communautaire". The BIPT participates as the postal sector regulator in Belgium. The Institute also participated in the plenary meeting in Spain dedicated to the revision of the internal rules and the drafting of the Work Plan 2023. Furthermore, the BIPT played an active part in the "UPU" working group, whose main task was the European preparation of the biannual meetings of the UPU.

Fratel. The BIPT is a member of the French-speaking regulator network, Fratel. This network organises a seminar every year, as well as a yearly meeting. With the increasing significance of communication technologies and the massive use of information technology in Fratel member countries, network and sector security has become a crucial issue, which is why the 19th Fratel seminar, in May 2022, was dedicated to this challenge.

The main objective of this seminar was to enable Fratel's member authorities to discuss security issues with various competent authorities, in particular those in charge of this matter. Two panel discussions and a workshop were organised to discuss the security of next-generation networks.



^{23.} The Digital Services Act (DSA) is a regulation of the European Parliament and of the Council which aims to better protect online consumers, oblige online platforms to act more responsibly and transparently, and stimulate innovation, growth

^{24.} The Digital Markets Act (DMA) is a regulation of the European Parliament and of the Council which aims to foster competition in the European digital markets and to prevent abuse of power by the very large platforms (gatekeepers).





1.4.2. The BIPT as the representative of the Belgian State

Specialist organisations of the United Nations

ITU. The International Telecommunication Union (ITU) is the worldwide authority for information and communications technologies. The Plenipotentiary Conference is the highest policy-making body of the ITU and is held every four years.

The latest Plenipotentiary Conference (ITU PP-22) was held in Bucharest (Romania) in September/ October 2022. At the Federal level, the BIPT prepared this important ITU meeting in collaboration with the FPS Foreign Affairs. The BIPT followed the Conference and collaborated with other countries of the European regions, via the Com-ITU on the one hand, and other EU Member States on the other hand. The BIPT Council Chairman, Michel Van Bellinghen, led the Belgian ITU delegation with the Belgian Ambassador in Romania.

The PP-22 set the ITU's course for the next four years. This four-year strategy sets out the key priorities for radio communications, standardisation and connectivity-oriented development worldwide, driving an inclusive global digital transformation and contributing to the achievement of the UN's Sustainable Development Goals (SDGs) 2030, in other words universal connectivity and sustainable development.

The main decisions taken at the Conference relate to the following issues:

- the use of new technologies to mitigate the climate crisis:
- how technology can offer protection against global pandemics;
- cybersecurity and network security;
- stimulation of technologies and artificial intelligence (Al) applications;
- sustainable development in space;
- empowering women and girls through digital transformation:
- allocation of frequencies for military radio installations within the framework of national defence services:
- the Internet of Things (IoT) for smart cities and communities.

Other planned conferences such as the World Telecommunication Development Conference (WTDC) and the World Telecommunication Standardization Assembly (WTSA) could not take place before 2022 (due to the COVID-19 pandemic). The World Telecommunication Standardization

Assembly (WTSA) is held every four years and defines the themes for the next four years within the framework of the study groups of the ITU Telecommunication Standardization Sector (ITU-T).

The BIPT participated in the European preparation of PP-22, WTSA and WTDC through Com-ITU, the CEPT coordination committee for the ITU.





UPU. The Universal Postal Union (UPU) supervises the international postal exchange. The Universal Postal Congress is the highest policy-making body of the UPU and is held every four years. It gathers the representatives of the 192 Member countries to decide on the reform of the UPU, to adopt a new global postal strategy and establish the future rules applicable to the cross-border postal traffic. Between two Congresses, the Council of Administration (CA), made up of 41 Member countries, and the Postal Operations Council (POC), made up of 48 Member countries, continue the Union's work.

Within the UPU the BIPT carried out Belgium's renewed mandate in 2022 as a member of the Council of Administration and, more particularly, as vice-chair of the Council of Administration for the European region. As vice-chair, the BIPT, on behalf of Belgium, is a member of the Management Committee of the UPU Council of Administration, within which the Institute prepares the work of the Council of Administration.

The European Commission

COCOM. The Communications Committee assists the Commission in carrying out its executive powers and is composed of representatives of EU Member States. The BIPT participated as an expert in the activities of the COCOM, and particularly in two meetings of the COCOM.

PDC. The Postal Directive Committee is the postal counterpart of the COCOM. The BIPT closely follows the work of this committee and attended two meetings last year. The BIPT gave a presentation on the work of the UPU in June and on "Opening up the UPU to wider postal stakeholders" in December.

RSPG/RSC. The Radio Spectrum Policy Group or RSPG is a high-level advisory group assisting the European Commission in the development of the radio spectrum. The Radio Spectrum Committee or RSC is responsible for specific technical measures necessary to implement the radio spectrum policy. It is made up of representatives of the Member States and is chaired by the European Commission.

As the radio spectrum and the related matters by nature exceed the national borders and in view of the objective of a harmonised use of spectrum in Europe, the RSPG's and RSC's work within the European Commission's Directorate-General "Connect" is closely followed by the BIPT. As for the implications in Belgium of the activities of the

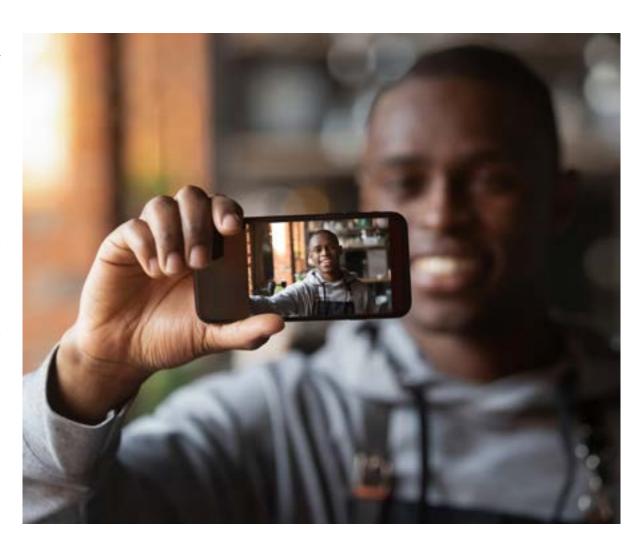


RSC and RSPG, a consultation is held if necessary with the Communities (who are in charge of broadcasting). The RSC meets four times a year, and the RSPG three times.

The RSC's activities in 2022 resulted in the adoption of <u>six Implementing Decisions</u> of the European Commission.

RE EG. The expert group on radio equipment is also chaired by the European Commission. In addition to representatives of the Member States, it includes representatives of stakeholders such as the industry, European standardisation organisations, consumer organisations, market surveillance organisations and notified bodies.

In 2022, the BIPT participated in two online meetings during which serval technical aspects were discussed, such as cybersecurity, interference on weather radars, etc.





The BIPT's strategic objectives directly stem from the strategic axes, i.e. competition, users, scarce resources and efficient functioning. They serve as a guideline for the activities of the BIPT.

The strategic objectives are specified in a three-year strategic plan. The year 2022 is included in the 2020 - 2022 Strategic Plan and, more concretely, in the 2022 Operational Plan, with goals precisely describing the concrete execution of the Strategic Plan for the year.

This chapter includes the concrete actions that were taken, in addition to the daily operations of the BIPT, to achieve the strategic objectives. It gives an overview of the execution of the 2022 Operational Plan.

2.1. Competition

Healthy competition for the provision of electronic communications networks and services and postal services undeniably benefits the economic development. However, from a wider perspective, it is essential to reach the objective of social well-being: it is vital that citizens benefit from an offer of electronic communications, media and postal services which is diversified, qualitative and available at competitive prices.

The BIPT monitors the development of competition

based on quality, price or innovation in the electronic communications, postal services and media sectors. Naturally, competition on the media market is regulated in close cooperation with the media regulators of the Communities.

2.1.1. Market analyses

The purpose of a market analysis in the electronic communications sector is to define the relevant markets and assess if certain operators have significant market power. Upon defining the "relevant market" the products and services of that market are described and the geographical scope of the market is determined.

Operators with significant market power have an economic power enabling them, to a large extent, to act independently of competitors, customers and consumers on the market concerned. Specific obligations are imposed on SMP operators. The basic obligation is generally to open the network of these operators to competing operators. This obligation is often accompanied by additional obligations (transparency, non-discrimination, control of wholesale prices).

The BIPT essentially analyses wholesale markets, meaning that they concern services that telecommunications operators buy from each other. Wholesale markets are regulated with a view to making retail markets (services intended for consumers and businesses) more competitive.

Review of the broadband and broadcasting wholesale markets. The year 2022 was devoted to preparatory work for the upcoming review of the broadband and broadcasting wholesale markets. The services that are traded in these markets are necessary to enable new entrants to compete with incumbent operators both on the broadband Internet access segment and on the segment of bundled offers, including both Internet access and broadcasting services ("multiple play packs"). In that context, a communication was published in July 2022. It examines general market trends (number of broadband lines, relative weight of different technologies, operators' market shares, etc.), but also price trends and the impact of the regulation introduced in 2018. With the help of a specialist company, the BIPT also carried out a survey of a sample of consumers who were asked about their attitudes towards various telecommunications services. The BIPT has also entrusted another external partner with a series of technico-economic studies designed to assess the constraints on the various wholesale services (local access, central access and broadcasting services). This preparatory work will be pursued in 2023.

Call termination (fixed or mobile). The end-to-end connectivity (i.e. the possibility for every user to reach other users and to be reached by them) is an essential principle of the regulatory framework for electronic communications. The provision of (fixed or mobile) call termination services is essential to ensure the





end-to-end connectivity. To ensure that the reference offers of operators using IP technology satisfactorily meet the operators' needs, a pre-consultation of the 'mobile IP' reference offers of the three mobile operators took place in the summer of 2022. As the BIPT has been informed of certain cases where operators encountered difficulties in concluding interconnection agreements, the BIPT published in December 2022 a communication as to recall a number of provisions and principles that stem from the regulatory framework and/or the decisions previously adopted.

The deployment of optical fibre supervised by the BIPT

2.1.2. Inspection and validation of the reference offers

The obligation of transparency consists in requiring SMP operators to publish certain accounting, technical or tariff information. When the regulator

imposes this obligation²⁵, SMP operators must establish a reference offer which will serve as a basis to grant other operators access to their infrastructure. This is particularly the case for wholesale access markets. The reference offer describes all the options for access and related services, the conditions for the provision of services, the rights and obligations of the provider and user, all of the processes and tools that have been introduced, the tariffs for the rental of lines and the services the operator concerned must provide.

In the market analyses mentioned under point 2.1.1 above, new obligations have been imposed upon SMP operators. The BIPT monitors the proper and timely implementation of these obligations, including the necessary amendments to the reference offers.

In 2022, the BIPT examined several aspects of **Proximus' reference offers:**

• the SLAs and the calculation of the compensation in the Bitstream xDSL and Bitstream GPON reference offers: in 2020 the BIPT started with a broad consultation of the sector concerning these aspects of the reference offers based on a first adjustment proposal by Proximus. This resulted in the publication of the draft Decision of 20 July 2021, to which several parties responded. The final decision was published on 3 November 2022. It requires Proximus to adapt several SLAs and the corresponding flat-rate compensation amounts.

 A number of other modifications to Proximus' reference offers were examined within the framework of addenda proposed by Proximus.

New FTTH (Fiber To The Home²⁶) reference offers.

In 2021, Proximus created two joint ventures (Fiberkaar and Unifiber) to develop a point-to-point FTTH network.²⁷ Fiberklaar plans to connect 1.5 million households and businesses in the northern part of the country, whereas Unifiber aims to connect 600,000 households and businesses in the southern part of country. As subsidiaries of Proximus, both joint ventures are subject to the access, transparency and non-discrimination obligations imposed on Proximus in the CRC decision of 29 June 2018 on the analysis of the broadband and broadcasting markets.

The transparency obligation lays down the drafting of a reference offer. Fiberklaar and Unifiber submitted their draft reference offers to the BIPT in the spring of 2022. The BIPT analysed them, compared them to the commercial agreement between Proximus and Fiberklaar/Unifiber and submitted them to the market within the framework of a prior consultation. Based on the responses received and its own analysis of the compliance of these proposals with the regulatory provisions in force, the BIPT submitted two draft decisions (Fiberklaar – Unifiber) for consultation on 8 December 2022.

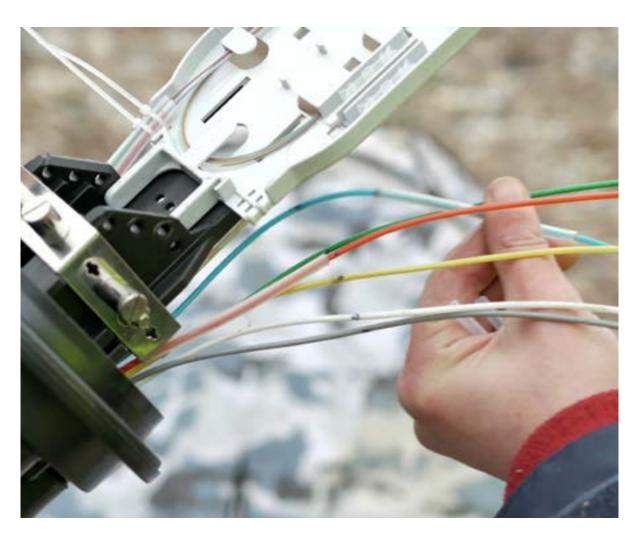
^{27.} In a point-to-point FTTH network all end-user have their own optical fibre, whereas in a point-to-multipoint network several end-users share the capacity of the same optical fibre.





^{25.} Pursuant to Article 59 of the Act of 13 June 2005 on electronic communications.

^{26.} FTTH or fiber-to-the-home: a network consisting of optical fibre up to the end-user.



2.1.3. Rates in line with an efficient operator's costs

The tariff conditions of the reference offers encompass two major categories of tariffs:

- one-time fees pay for the specific technical services such as the activation of the service or the installation by a technician;
- monthly rental fees compensate the incumbent for the use of, for instance, the local loop.

The calculation method for these tariffs ensures that they reflect the operational and financial reality of an efficient operator.

Monthly fees for access to the point-to-point FTTH network of Proximus's joint ventures (Fiberklaar and Unifiber). As subsidiaries of Proximus, both joint ventures are subject to the price control obligation imposed on Proximus in the CRC Decision of 29 June 2018 on the analysis of the broadband and broadcasting markets. Controlling the prices of wholesale fibre-optic services consists of an obligation to charge fair access tariffs: tariffs that can be higher than the costs while maintaining a link with the costs. To verify the "fairness" of wholesale prices, the BIPT selected a consultant in 2022 to establish new bottom-up cost models to reflect the point-to-point FTTH network of an efficient operator. Furthermore, the existing point-to-multipoint FTTH

model of Proximus' own network will also be updated based on the most recent deployment data of Proximus. In 2022, data necessary to feed these cost models were collected from operators. The models are being developed and will be submitted for consultation in 2023.

Monthly fees for Ethernet transport within the framework of Proximus' wholesale offers. Bitstream active access services consist, on the one hand, of the access service and, on the other hand, of the Ethernet transport services. The activities of the BIPT include a review of the pricing of Ethernet transport (previously determined by the Decision of 13 January 2015). The complete pricing of Ethernet transport was analysed within the framework of this review (regarding the services on Proximus' copper network and on its optical fibre network). To that end a consultant developed a cost model which was subject to a consultation from June to September 2022. In addition to taking into account relevant comments, the consultant is also developing a pricing module converting the calculated costs into a pricing structure. The activities will continue in 2023 and will result in a consultation on a draft tariff decision.

One-time fees for access to Proximus' FTTH network. On 20 January 2021, the BIPT published a draft Decision on the amount of the one-time fees within Proximus' Bitstream GPON service. Following the various responses to this draft Decision, the BIPT then carried out an additional inspection during the

3rd quarter of 2021 on the data used in these cost models. The conclusions of this audit led the BIPT to decide to organise a 2nd round of consultation. The second <u>draft decision</u> was published on 31 March 2022. Following receipt of the contributions regarding this new round of consultation, the final tariffs were set. The <u>final decision</u> was published on 4 October 2022.

The BIPT ensures that SMP operators do not engage in margin squeeze practices (i.e. they do not maintain an insufficient margin between wholesale and retail prices). In principle, these margin squeeze tests are carried out on a broad portfolio of products, so that the regulated operator can retain a degree of

The BIPT monitors the margins between the retail and wholesale prices.

flexibility in its pricing policy. In certain circumstances a margin squeeze test can also be carried out on an individual tariff plan. As a consequence, the BIPT carried out a test in 2022 on certain individual products following a complaint submitted by edpnet concerning Internet services offered over optical fibre by Proximus and its brand Scarlet. In a test on an individual product the BIPT only considers incremental costs and revenues that are relevant for these products (and thus excluding for instance overhead costs). In a Decision of 20 December 2022, the BIPT concluded that edpnet's complaint had to be rejected, as no margin squeeze had been demonstrated on the products concerned. The BIPT plans to continue monitoring the competitive situation on this market by carrying out new portfolio tests for the residential and small business market, as well as tests on a selection of individual Proximus contracts. on the large business market.

2.1.4. Other measures to promote competition

The promotion of competition does not rely solely on measures resulting from market analyses and consequently imposed on operators with significant market power. Other measures imposed on all operators are also aimed at stimulating competition.

Free choice of network terminal equipment for broadband and TV services. Among other things, the BIPT is responsible for monitoring and enforcing the regulations on terminal equipment, pursuant to Articles 32, 36 and 38 of the ECA. On 3 October 2022, the BIPT published a draft decision regarding





the identification of the network termination point for broadband services and TV services. By means of this draft decision, the BIPT wishes to provide greater clarity as to the way in which it interprets the regulations on terminal equipment, in accordance with BEREC's guidelines. The BIPT also addresses the publication of the technical specifications needed to ensure that freedom of choice of modem is implemented in the best possible way. The BIPT received reactions on this subject from various parties and will incorporate them into a final decision in 2023.

Access to the connection cable of fixed networks. On 6 October 2022, the BIPT published a first consultation on access to the first concentration point on Belgian fixed networks. The cable connecting the end-user to the operator's network (drop cable) is an important part of the fixed infrastructure. Pursuant to Article 28 of the ECA another operator wishing to deploy a new telecommunications network may request access to this cable based on a reasonable request. In this document, the BIPT examines how an operator could gain access to the drop cable on fibre optic networks and on coaxial cable networks (Telenet and VOO). This consultation will be complemented in 2023 by contributions from the various operators who responded to the consultation.

2.1.5. Informing to support innovation

In 2021 the BIPT launched the website <u>Infofibre</u>. This website is part of the European Commission's

objective to encourage the deployment of very high capacity networks. As a matter of fact, Europe expects that its citizens will have access to the Internet with gigabit speeds by 2030, and optical fibre plays an important part in this regard.

The website was complemented in 2022 by a map of optical fibre showing the status and evolution of the FTTH deployment in Belgium. This map complements the fixed Atlas map (published on the data portal of the BIPT) which shows in detail the coverage of all fixed broadband networks in Belgium. With the FTTH map, the BIPT intends to highlight the evolution of optical fibre in Belgium, with quarterly updates. The map also shows where fibre optic deployment is planned in the short term, and which operators are offering their services on the optical fibre network.

In addition to the publication of the FTTH map, information efforts aimed at specific target groups, such as (associations of) towns and municipalities and property management companies, were also provided in 2022. These players play an important part in the deployment of optical fibre.

On 4 May 2022, the BIPT published a <u>study</u> identifying 5G implementations abroad. This study was published to inspire Belgian companies and ensure that the imminent roll-out of 5G is accompanied by rapid adoption of this new technology. Among the large number of existing foreign examples, 113 use cases of various types were selected for their

relevance to the Belgian context. The vast majority (88%) of these use cases are B2B oriented. Regarding the sectors, almost a quarter is made up of use cases linked to the transport and logistics sector (24%). Manufacturing (22%) and smart city (13%) applications are the other two most common use cases. The potential uses in these three sectors should make a major contribution to the successful adoption of 5G in Belgium. Projects in the energy and utilities (12%), healthcare and life sciences (10%), defence and public security (8%), culture (5%) and public administration (5%) sectors also offer tremendous potential.

2.1.6. Promoting connectivity

Promoting connectivity and access to very high capacity networks is one of the BIPT's goals. It is becoming increasingly evident that connectivity to efficient fixed and mobile networks is a driving force of social and economic life. The BIPT's objective in terms of connectivity, i.e. the generalisation of access to very high capacity networks, and the uptake of such networks, for all Belgian citizens and undertakings, was set in accordance with the European Code which introduced that objective.

Connectivity Toolbox Recommendation. Within the context of the European Recommendation of 18 September 2020 (Connectivity Toolbox Recommendation), the Commission asked Member States to urgently define a common Union toolbox





based on best practices to increase the deployment speed of networks. Within this framework, best practices for net cost reduction, on the one hand, and best practices for 5G spectrum access, on the other hand, were defined. The work on the Connectivity Toolbox is also part of the 2030 Digital Compass exercise. Concerning 5G, the BIPT coordinates the implementation of best practices in Belgium. The 5G best practices have been largely accomplished.

2.1.7. Market monitoring in the electronic communications sector

To carry out its missions in the electronic communications sector, the BIPT must have a perfect insight into the market situation. Market surveillance also allows to measure the impact of regulation a posteriori. Surveillance is thus a core activity of the BIPT.

Telecommunications prices. In November 2022, the BIPT published a national benchmarking of the electronic communications services rates based on the results of the "household profiles" which were analysed during the third quarter of 2022. This methodology is based on the needs of the consumers, which are illustrated on the basis of a dozen households with sufficiently differentiated profiles to get a broad and varied perspective of the market. It is based on the follow-up of the minimal expenses of an informed consumer to cover their telecom needs while specifying the different types of solutions

available on the Belgian residential market. The telecom solutions which were taken into account²⁸ to meet the needs of each profile may include: a standalone service (Internet only or mobile postpaid), a bundle (2P, 3P, 4P) or a "mixed" solution (for instance a mobile postpaid service of an operator coupled with a bundle of the same operator A or of an

operator B). For each of these 10 profiles, a ranking lists the cheapest tariff plans of operators or service providers, allowing at least to meet the specific needs.²⁹

This exercise has several objectives: firstly, to give visibility to all operators active on the Belgian



^{29.} Please note that certain operators are not included in this ranking because their offers cost more than the exclusion value above which a rational consumer would not buy these offers for that specific consumption profile.





^{28.} All the plans included in the tariff simulator www.besttariff.be (consumer part) were taken into consideration to meet these different profiles. Add-ons and/or out-of-bundle consumptions were sometimes activated to meet these profiles. Depreciation is calculated over a period of three years. However, promotions were not taken into account.

residential market and show the alternatives to the current solutions for consumers in terms of offers as well as in terms of types of possible solutions. The national tariff comparison also aims to foster competition among operators that are active on the Belgian residential market, and to encourage consumers to compare more frequently the offers likely to meet their needs and possibly to change plans and/or operators if they consider it appropriate. To this end, the online tool www.besttariff.be, knowledge of the operators available at your connection address (available at www.bipt-data.be) and the Easy Switch procedure are particularly useful.

The Belgian electronic communications market in an international perspective. Once again the BIPT compared the prices of residential telecommunications services in Belgium in 2022 with those in our neighbouring countries (France, Germany, Luxembourg, the Netherlands and the United Kingdom). The study is based on the prices applicable in October 2022.

Regarding mobile services the situation in Belgium improved with respect to 2021. The minimum amount to pay to meet data needs from 10 to 50 GB has in fact significantly dropped over the past year, putting Belgium in the middle of the pack compared with its neighbours this year (neither cheap nor unaffordable) when it comes to mobile data needs up to 50 GB. On the other hand, our country remains particularly

expensive for volumes greater than 50 GB. Little progress has been made in this area since last year.

Regarding fixed and bundled services this edition of the study draws the attention to the fact that the situation has changed little in a year. On the one hand. Belgium remains clearly more expensive than France and the UK, which are by far the cheapest countries in the study. On the other hand, Belgium is approximately at the same level as the Netherlands, Luxembourg and Germany in terms of needs for the Internet subscriptions and double-play bundles including Internet and mobile services. However, just as in 2021. Belgium becomes ever more expensive compared with these same countries as the number of telecommunications services increases (television and/or fixed or mobile telephony). Furthermore, the gap between Belgium and the next country for each profile has widened in terms of bundles without mobile subscriptions.

Belgium's competitiveness in terms of information technology is measured by the DESI (Digital Economy and Society Index), which is updated by the European Commission each year. In the 2022 edition of the index, Belgium slipped to the 16th place, whereas our country ranked 12th one year earlier. Among the four subcategories of the index, Belgium achieves its best results in terms of integration of digital technology by enterprises (6th) and human capital (13th). Regarding digital public services, Belgium, ranked 16th, is capable of moving up a gear. Progress remains to be

made, mainly in the digital applications offered by the government to citizens and businesses. The score regarding open data readiness can also be improved (62% versus 78% in the EU). Belgium scores the lowest regarding connectivity, which translates into the last place in the EU ranking. Unlike other European countries, no progress was made in 2021 in terms of 5G coverage and allocation of 5G spectrum. The coverage of optical fibre remains weak (9.7% of households with access to an optical fibre connection, versus 50% in the EU). The take-up of fixed broadband (83.8%) and the coverage of fixed broadband with a minimum bitrate of 30 Mbps (99.1%) remain above the European average of 78% and 90% respectively. The take-up of mobile broadband is also 6 percentage points higher than the EU average (77% vs. 71% for the EU average).

Quality of fixed and mobile broadband networks in Belgium. On 23 December 2021, the BIPT published a first edition of its qualitative study on fixed and mobile broadband networks in Belgium. This report, which complemented the price studies highlighting the economic aspect of the telecommunications market, focused on the technical quality of these networks, more particularly the coverage. The first version of this report showed that the coverage of both fixed and mobile networks was good.

In 2022, Belgium worked on an update of this report. This report will be published in spring 2023. The figures of the first edition will be updated.



Recent market developments will also be described, such as the completion of the 5G spectrum auction. The issue of "white spots" will also be discussed in more detail. This version of the qualitative study will also address new subjects such as the deployment of optical fibre networks, sustainability, the phasing-out of the copper network and the planned decommissioning of 2G and 3G.

Universal telecommunications service. In its Communication of 20 December 2022 regarding the monitoring of the universal telecommunications service, the BIPT concluded that there is no need to designate a universal service provider to ensure the availability, quality and affordability of this service as currently defined (i.e. with a minimum speed of 1 Mbps). This communication also states that this conclusion is without prejudice to the review of the minimum bitrate related to adequate broadband Internet access. The adoption of the Act of 21 December 2021 transposing the European Electronic Communications Code and amending various provisions regarding electronic communications lays down the new framework applicable to the universal service. To that end the BIPT will propose the bitrate to be included in the new scope of the universal service. The proposal will be the subject of an official publication in 2023.

Furthermore, in 2022 the BIPT continued to work with the bodies involved in the social tariff reform project.

Phasing-out of Proximus' copper network. Proximus strives to deploy optical fibre, either through its own resources, or via the joint ventures Fiberklaar and Unifiber. Where fibre is deployed, it is no longer necessary to keep the existing copper network operational. Copper is indeed a less efficient technology and it is not cost-effective to allow it to exist alongside the optical fibre already rolled out. Decommissioning is also interesting from the point of view of climate measures, given that optical fibre consumes less energy (and therefore less CO2) than copper networks. In addition, decommissioning must be carried out in accordance with Article 59 of the ECA, which deals with migration from the historical infrastructure, and also with the corresponding provision in the current analysis of the broadband and television broadcasting market.

In 2022, the BIPT initiated a study of the current approach to copper phase-out, based on a Proximus survey, on the one hand, and a questionnaire asking Proximus copper network users about their experiences, on the other hand.

In 2023, the BIPT will continue the analysis of the results of these surveys and, if necessary, start the decision-making process.

bipt (C)



Antenna site sharing. In the mobile sector, access to certain resources such as antenna sites is essential to the proper operation of networks and healthy competition. The site-sharing regime introduced in Belgium aims to reconcile the needs of the competition with environmental, public health, public safety and town and country planning objectives. Calling upon "towercos" – companies managing antenna sites and leasing them to mobile operators – is nowadays common practice in Europe. In Belgium, this trend became a reality in 2022 when Telenet sold its portfolio of sites to DigitalBridge. In this context, the BIPT monitors relations between the various players through regular contact with stakeholders.

Mergers and acquisitions. The BIPT closely follows mergers within the postal service and telecommunications sectors. When such operations occur, the BIPT stands ready to answer the questions which may be asked by the competition authorities. In 2021, cable operator VOO was subject to a sale process which ended with an agreement with Orange Belgium. The merger was examined in 2022 by the European Commission. The BIPT closely collaborated with the Commission as well as with the Belgian Competition Authority. A decision of the European Commission on this issue is expected in 2023.

Sustainability of the Belgian telecommunications networks. Digital transition is one of the main pillars of ecological transition as it enables other sectors to improve their sustainability more quickly and in



greater depth. The increase in data consumption resulting from this transition could lead to continued growth in the ecological impact of digital infrastructures. To gain more insight the BIPT commissioned a study regarding the sustainability of the telecom networks in Belgium in 2022. The study analyses the footprint of telecommunications networks, looking more specifically at changes in energy consumption, CO2 emissions, water consumption and waste treatment over the last four years.

The study reveals that sustainability is already an important theme for the three telecoms operators

interviewed (Orange, Proximus and Telenet) and they have already developed a number of initiatives and set targets. Between 2018 and 2021 their energy consumption decreased by 11% and their CO2 emissions by 38%. Although the Belgian telecommunications market is already carbon neutral thanks to the purchase of emission allowances, new efforts are being made to further reduce CO2 emissions. Operators are also focusing on the reuse and recycling of decoders and modems, in particular, to reduce the mountain of waste.

The BIPT will use this initial study as a basis for continuing to monitor the market, on the one hand.



and to check what new actions can be taken in terms of sustainability, on the other. Among other things, ways of raising consumer awareness in terms of their impact on the sustainability of the telecoms sector will be looked into in 2023.

Net neutrality. The <u>annual report</u> on the monitoring of net neutrality was published for the sixth time. This report is part of the monitoring of compliance with Regulation UE 2015/2120. It covers the period from 1 May 2020 to 30 April 2022.

The BIPT also published guidelines to clarify the use of the term "unlimited Internet" on the Belgian telecommunications market. In particular, they describe the conditions relating to minimum data volumes, the fair use policy (FUP) applied and the contractual transparency conditions.³⁰ These guidelines entered into force on 23 August 2022 and have led to changes in the names of ISP products and an increase in minimum data volumes included in the FUP.

Following the judgements of the Court of Justice of the European Union on the subject of zero rating, informal contacts with the three Belgian ISPs whose portfolios include offers incorporating a form of zero rating (and the setting of a deadline for one of the three ISPs surveyed) have ensured that all these offers be withdrawn from the Belgian market by mid-October 2022.

Under the control or technical coordination of the BIPT, two forms of admissible blocking of Internet access took place. Firstly, attacks of the Flubot virus were stopped by preventing communication between infected smartphones and the control servers. Secondly, the sanctions against the Russian regime adopted by the EU in response to the invasion of Ukraine included the suspension of the broadcasting activities of media Sputnik and RT/Russia Today.

2.1.8. Market monitoring in the postal service sector

The postal observatory was created to increase market knowledge and to follow the developments in the postal sector by means of <u>clear diagrams</u>. It represents the postal sector by means of economic data such as market shares, data regarding employment and investments, volumes, revenue... The information dates back to 2010 and documents the market developments by means of reliable data (see 3.2.1.). The postal observatory regarding the postal activities of 2021 was published on 19 December 2022.

2.1.9. Supporting an innovative postal service

Regulation on cross-border parcel delivery services. Regulation (EU) 2018/644 of the European Parliament and the Council of 18 April 2018 on cross-border parcel delivery services aims to further support intra-Union e-commerce by increasing transparency in the

tariffs for certain cross-border parcel delivery services and their assessment. The BIPT plays an essential role in achieving the objectives of the Regulation: its main task is to obtain from parcel delivery service providers the information set out in the Regulation.

In addition, based on the Regulation, the BIPT analyses the tariffs of the universal service provider (bpost) in order to identify possible unreasonably high tariffs. The BIPT has noticed a significant difference between the margins proposed by bpost and those calculated by the BIPT itself³¹. This is why in 2023 the BIPT will conduct a more detailed examination of the cost distribution within bpost's analytical accounting.

E-commerce from a postal perspective. Within the framework of a study on the postal aspects of e-commerce, the BIPT organised on 4 and 19 October 2021 in collaboration with the Cabinet of the Minister for Postal Services two stakeholder workshops on the subject of e-commerce, and more specifically on the sustainability of the last mile delivery. The information thus gathered was an important contribution to the study carried out throughout 2022 on behalf of the BIPT, which will be published in spring 2023.

Product qualification and analytical accounting. Whether or not a service falls within the universal service obligations of boost, is a question that matters

30. Concerning fixed Internet, the BIPT considers that the limit for a fair use policy applicable to an Internet described as "unlimited" should be set at a monthly data volume of three terabytes (TB). As for mobile Internet, the limit should be set at 300 GB.

31. Communication of 25 October 2022 regarding the assessment of the bpost tariffs considered within the framework of the European regulation on cross-border parcel delivery services







for, among other things, the calculation of the universal service net cost. The list of products and services of the universal postal service provider has to be submitted for approval by the BIPT each year and per category (universal service, public service or commercial product/service). The BIPT then informs

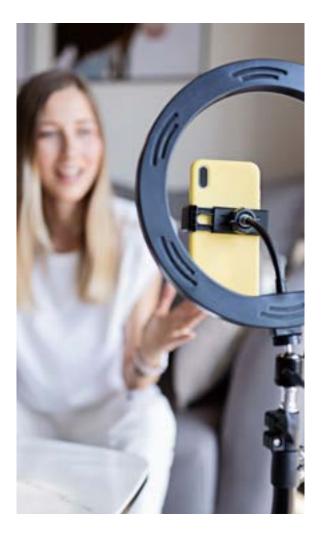
the auditor of the universal service provider of its approval. The analysis conducted in 2022 regarding the listing and classification of products and services provided by the universal service provider for the year 2021 was finalised in the <u>Decision</u> of 2 August 2022.

On 2 August 2022, the work on bpost's analytical accounting for the year 2020 was also concluded by a Decision.

Net cost of bpost. Each year, the BIPT verifies the calculation of the net cost of bpost's universal service obligations, pursuant to Article 23 of the postal Act of 26 January 2018. The BIPT is developing a method to verify the net cost of the universal service (comparison between the factual and counterfactual scenarios), should bpost submit a request for a state contribution to offset a net cost. In this context, the BIPT also prepared a method to assess the possible intangible benefits associated with the provision of the universal service. Bpost did not officially submit a compensation request for a possible net cost of the universal service since the entry into force of the Act of 26 January 2018 on postal services.

Protecting the users' interests is an important mission for the BIPT. The need for them to have access to high quality postal and electronic communications services at a competitive price is well established. Ensuring social inclusion also remains a key objective. However, the BIPT must also make sure that users can access the innovative technologies and services available on all networks. To that end, the Institute must face the corresponding challenges, such as the protection of privacy or the conformity of equipment placed on the market.





2.2.1. The informed consumer can compare and choose

To ensure that users can really take advantage of a wide range of postal and electronic communications services, and determine which one meets their specific needs and requirements in terms of quality and price, it is crucial to provide them with reliable information. By providing them with several tools, the BIPT ensures that they are provided with transparent information. The purpose is to ensure a reliable environment to guarantee user confidence.

Transparency on the electronic communications market

Besttariff.be. This site contains all tariff plans of electronic communications operators active on the Belgian residential market. The tariffs of the commercialised offers for mobile and fixed telephony and Internet, as well as for bundles, are compared in an objective manner. This way, the consumer can find the most advantageous tariff plan corresponding to his or her consumption or needs. The tariff simulator includes a manual calculation option and an automatic calculation option, whereby the consumption data available in the operator's customer area is automatically fed into the fields of the tariff simulator. The algorithms supporting the various functionalities are regularly inspected.

Initially aimed at the residential market, the tariff simulator was extended in 2022 to include micro-

businesses and the self-employed (manual calculation option only), to provide them with an easy way of finding an affordable telecoms subscription tailored to each business' individual needs.

Atlas/Quality barometer. In 2022 the BIPT updated its data portal https://www.bipt-data.be/en. This portal includes qualitative data that are useful for users when choosing an operator. There are also maps showing the coverage of fixed and mobile networks, statistical indicators assessing the quality of experience on Belgian mobile networks, and a quality barometer giving an overview of the performance of different providers using different indicators.

In 2022 the BIPT updated its maps of the fixed coverage. Users can now assess network coverage up to 1 Gbps and view the coverage at their address per operator. Additional information, such as the technology via which the service is provided, as well as maximum download and upload speeds, is made available to the user in order to provide sufficient information. An update of the mobile coverage maps was launched, in accordance with the methodology recently defined by BEREC. The data of the quality barometer were also updated.

Furthermore, the BIPT led a campaign to measure the quality of experience, with a view to enabling a comparison of the quality of the various operators. These tests are carried out using test vehicles on the



main regional roads, but also on secondary roads and more rural roads in all provinces. The study also measures the experience of consumers who use their smartphones outside their vehicles, in their homes, in the areas surrounding these roads. The results of these measures show that the voice and mobile data usage quality of the three mobile networks is very good. Comparable tests were carried out on the 15 main railway lines in Belgium to measure the quality of mobile networks on these lines.

To collect more statistics on network quality, the BIPT also collaborated with the BEP³² of Namur in setting up the "sentinel trucks" project, which consists in installing sensors on the trucks used for waste collection rounds. The measurements within the framework of this project will start in 2023.

The BIPT strives to continuously improve the quality of the data available on its portal. In 2022, the level of detail of the coverage map for fixed networks was improved, displaying now address-level coverage by operator and by technology.

Transparency on the postal services market

Postal point. The BIPT's website postalpoint.be contains an overview of all staffed points, letterboxes and parcel lockers in Belgium. The tool also allows to closely monitor the development of the network (see 3.2.3.). In 2022, other developments took place, including the possibility to link the postalpoint.be

database with those of the operators in order to facilitate the execution of updates.

Effective tools to inform consumers

Tariff comparisons. In collaboration with the postal operators subject to the Cross-Border Regulation³³, the BIPT has developed a method to enrich the existing information on the European Commission's tariffs for national and cross-border postal items and to present it to the consumer. In 2022, efforts were made to integrate this tool, which currently uses an Excel pivot table, more digitally, to make it even more user-friendly and easy to access. This tool will be integrated in pointpostal.be in 2023.

2.2.2. Ensuring a reliable environment

Society is becoming increasingly dependent on electronic communications. However, even if the "softwarisation" and virtualisation offer more and more possibilities, they involve a higher level of complexity. It is therefore important to ensure that

networks are reliably secured and managed. This applies especially to critical telecom infrastructure and the essential services that are provided on it and must remain available, for they constitute the backbone of our digital society.

The reliability of electronic communications services must be guaranteed for users, including in terms of privacy. The BIPT also verifies the reliability of the information provided by the operators to the users.

Telecommunications networks are of crucial importance for public security and, as national critical infrastructure, require a high level of security. As part of the renewal of the national critical infrastructure identification process, the BIPT has taken decisions to renew the list of national critical infrastructures. Operators of critical infrastructure must take security and protection measures to prevent or limit any event likely to cause damage to the infrastructure or part of it.

Mobile network security. Given the highest importance of being able to rely on secure and reliable infrastructure, work was undertaken at the EU level with regard to securing 5G. A 5G toolbox³⁴ was thus published in 2019. Its purpose is to propose solutions concerning potential risks linked to the cybersecurity of the fifthgeneration networks. Pursuant to it, the Federal Parliament adopted the Act of 17 February 2022 introducing additional security measures for the provision of mobile 5G services. The BIPT participated in the drafting of a draft Royal Decree in 2022.

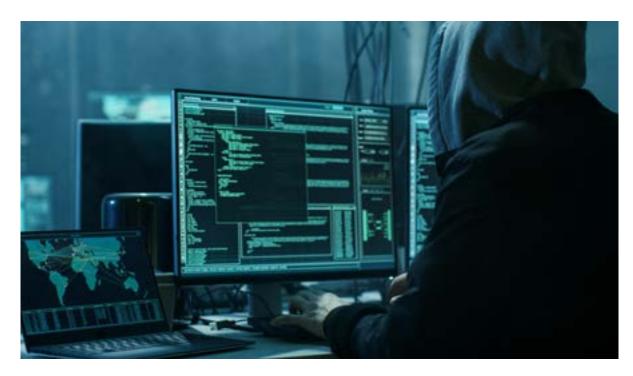




^{32.} Bureau Économique de la Province" (Economic Office of the Province of Namur).

^{33.} Regulation (EU) 2018/644 of the European Parliament and of the Council of 18 April 2018 on cross-border parcel delivery services.

^{34.} CG Publication 01/2020: Cybersecurity of 5G networks EU Toolbox of risk mitigating measures.



Risk analysis. Operators must conduct risk analyses for the purpose of network safety and, based on that, take appropriate measures to limit the risks³⁵. In cooperation with the Luxembourg regulator (the ILR or "Institut luxembourgeois de régulation"), an online platform where operators can carry out their risk analyses has been made available. In order to define the context for the risk analyses, a collaboration with the operators took place and a common risk analysis

model was created. This collaboration will serve as a basis for adapting future risk analyses to the sector's threat landscape.

Security incidents. Telecommunications operators inform the BIPT of security incidents with a considerable impact on their networks and services. At the beginning of the year, the Institute sent the annual report of these incidents to the European

Commission and ENISA (European Union Agency for Cybersecurity).

For major threats or incidents, the BIPT actively collaborates with the operators and security services, including the National Crisis Centre (NCCN) and the CCB (Centre for Cyber Security Belgium).

One example is the "Flubot", a mobile malware on Android devices. Already targeted in 2021, Belgian customers were once again flooded with smishing messages sent by "Flubot" in 2022. In cooperation with the operators, the CCB and the prosecutor's office, the BIPT has provided for the possibility to block these messages in an efficient way, to identify and contact the victims of this malware and to block the action of the malware. Thanks to this cooperation with the operators, the CCB and the BIPT, Flubot is no longer a threat in Belgium.

Combating fraud. Within the anti-fraud working group, operators share information and experiences on a voluntary basis. Since 2016, the working group has been meeting regularly under the leadership of the BIPT, seeking collaboration at the operational level (information sharing concerning kinds of fraud, notification of cases of fraud...) as well as at the structural level (legislative and regulatory measures). A cooperation agreement to block illegal gambling sites was concluded with the Gaming Commission. Coordination at content level has also been achieved for the first part of the project, during which, as part

^{35.} This obligation arises from the provisions of Articles 114, § 1, subparagraph 1, of the Act of 13 June 2005 on electronic communications and 20 of the Act of 7 April 2019 laying down a framework for the security of networks and information systems of general interest for public safety.

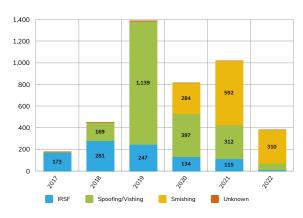




of the National Recovery and Resilience Plan, subsidies are awarded to operators who invest in advanced platforms to combat smishing.

The chart below shows the quantity of numbers used to commit fraud and blocked by operators to prevent further damage. A distinction was made according to the type of fraud, namely smishing³⁶, spoofing/vishing³⁷, IRSF (International Revenue Share Fraud³⁸) and a residual category. The decline in IRSF observed in previous years continues. For the first time we also notice a drop in smishing fraud.





Operationalisation of the process for subjecting certain members of the operators' staff to security checks. Since May 2022, operators with critical infrastructures have been obliged to seek security advice for their staff working in these infrastructures. The BIPT carries out the administrative management of these files and cooperates with the National Security Authority which is responsible for security checks. Since the procedure was initiated, more than 450 persons have already taken the clearance exam of the National Security Authority, further enhancing the security of these critical infrastructures for the operation of electronic communications networks.

Risk of electricity shortage. As every year, the National Crisis Centre (NCCN) requested an update on the risks associated with a possible electricity switch-off. Analyses were carried out to ensure continued accessibility to centres 101 and 112. Given the limited risk of electricity switch-off during the winter of 2022-2023, no measures were imposed on the sector.

^{38.} The International Revenue Share Fraud is a type of fraud artificially generating telephone calls to international number series without the intention of paying for them. The perpetrator receives a portion of the revenue from the termination charges that the number series holder receives for incoming traffic to the number series.





^{36.} Smishing is phishing by SMS, a form of fraud where the perpetrator tries to obtain information from the victim by means of a text message containing misleading information.

^{37.} Vishing is VoIP (voice over IP) phishing, where the perpetrator fools the victim over the phone in order to obtain personal and/or financial information.

2.2.3. Follow-up of consumer needs and behaviour

The BIPT's mission to protect the users' interests involves an in-depth and daily updated knowledge of the demand on the markets concerned. It is therefore important that the BIPT closely follows the developments of the consumers' needs and behaviours, by regularly carrying out several studies, surveys and comparisons.

Follow-up on the electronic communications market

Consumer study. In 2022, the BIPT continued examining the functioning of the electronic communications market and published the results of its annual survey on the users' perception of the Belgian electronic communications market. The results were based on more than 5,000 questionnaires assessing their behaviour and were published on 8 September 2022. This edition highlighted the fact that whereas 5 years ago only 21% of consumers used video on demand, today they reach 41%. This increase can also be seen for television on the Internet (from 15% to 41%). Regarding fixed telephony, the downward trend seen in recent years has been confirmed, with the percentage falling from 53% to 42% in two years. As shown by another BIPT study³⁹, regulation has had beneficial effects for consumers, particularly in terms of the diversity of offers available on the market. This is also reflected in this survey, with the

BIPT noting a higher level of satisfaction regarding both products and tariffs.

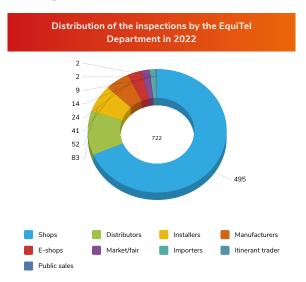
Follow-up on the postal services market

Study of consumers' needs. The BIPT regularly carries out studies regarding postal services users. This type of study is based, on the one hand, on data from a representative statistical survey and, on the other, on qualitative aspects derived from focus groups and individual interviews. These studies provide important information about the sector and help steer a course for regulation. The conclusions of the latest report are still relevant, even if the BIPT did not conduct a study in 2022.

2.2.4. Safe radio equipment and telecommunications terminal equipment

All equipment capable of broadcasting or receiving through radio waves is subject to the Radio Equipment Directive or "RED"⁴⁰. This directive ensures that the equipment complies with the essential health and safety requirements and does not cause harmful interference. In order to increase the compliance of radio equipment commercialised on the Belgian market, the BIPT's EquiTel Department performs regular inspections of Belgian and foreign economic operators. Il carries out border controls on imported products in collaboration with customs.

In 2022, 722 points of sales were inspected with various distribution channels, as shown in the following chart:



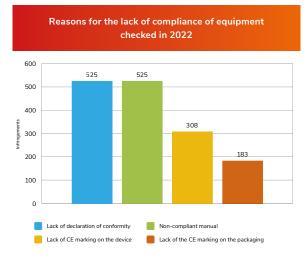
1,240 different brands of equipment were checked. Of these, 682 were compliant, 16 required further analysis and 542 were not compliant.

The following chart shows the main reasons for the lack of compliance.

39. https://www.bipt.be/operators/publication/communication-of-16-july-2022-on-the-evolution-of-the-broadband-and-television-markets-since-q1-2018
40. Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.







In cooperation with the customs authorities, the BIPT also checks radio or radio equipment at border entry points.

The EquiTel Department was called in to check 369 import files, mainly transported by air and sea, including 323 containers and pallets and 46 parcels. A total of 114,793 items were inspected:

- 106,473 of them were blocked at the border for non-compliance⁴¹;
- 727 pieces of equipment were released as they were compliant;

 At the time of writing, the last 6,360 pieces of equipment were still awaiting a decision.

The BIPT has criminal investigation officers who, under the authority of the public prosecutor, can perform all sorts of investigative actions as well as searches. Goods may also be seized as a result. In 2022, these actions resulted in 18 reports, for a total of 6,385 seized products.⁴²

2.2.5. Monitoring compliance with obligations by operators in the electronic communications sector

The regulator is in charge of the monitoring of the observance of the regulatory framework regarding the protection of users on the electronic communications, media and postal services markets. This monitoring is essential to ensure a reliable communications environment for users.

Mobile telephony - Roaming. The European "Roam Like at Home" Regulation, reviewed in 2022, lays down that mobile operators can no longer apply surcharges for roaming services within the European Economic Area⁴³ (EEA). Consumers travelling within one of these countries can consequently enjoy the same rate as in Belgium for the mobile services. In 2022, the BIPT monitored the application of the Roam Like at Home Regulation, particularly concerning the application of the fair use policies by the operators. The BIPT

also followed up the implementation of new elements introduced by the recasting of the abovementioned regulation.

Fixed telephony, fixed Internet and/or television - Switching operators. The Easy Switch⁴⁴ procedure facilitates the change of fixed Internet and/or television provider, as well as the change of bundle provider: the new operator organises the change of provider, unless the user explicitly indicates that he or she does not wish this.

As it had previously been noted that the general public was relatively unaware of Easy Switch, the BIPT examined the way in which operators presented this procedure to subscribers. This survey was aimed at operators providing fixed service to individual consumers. To that effect, the following actions have been taken:

- The standard documents used by the technicians and signed by the subscribers upon installation, have been inspected: the Easy Switch procedure has been correctly represented on these documents.
- The BIPT also verified the manner in which operators present Easy Switch on their websites.
 The Institute established that they do so in a correct, clear and accessible manner. Both in the case of documents used by the technicians and on the operators' websites, Easy Switch is presented

^{44.} Established by the Royal Decree of 6 September 2016 regarding the migration of fixed line services and bundles of services in the electronic communications sector.





^{41.} The most important product categories (more than 10,000 products were blocked in 2022) are Bluetooth earbuds, connected watches, smartphones and wireless headphones.

^{42.} Most of the products seized were Bluetooth earbuds (30%), followed by Bluetooth amplifiers, smartphones, computers and wireless headphones.

^{43.} European Economic Area: in addition to the 27 Member States of the European Union this also includes Iceland, Liechtenstein and Norway.

as the standard procedure to switch operators and not as a mere option.

• The BIPT sent inspectors to the shops of the major operators (Orange, Proximus, Telenet, VOO). These inspectors presented themselves as subscribers wanting to switch to another operator or as subscribers wanting to subscribe with the operator in question. Most of the shops gave correct information regarding Easy Switch. However, for one operator the salespersons at different shops were not capable of informing the customer correctly about the Easy Switch procedure. The BIPT transmitted these results to the operator in question. Meanwhile this operator organised an advanced course regarding Easy Switch, which was compulsory for the salespersons. The Institute shall inspect this operator's shops again during the first half of 2023.

Premium-rate numbers. Furthermore, the BIPT continued to monitor and finalise the inspection of 20,000 premium-rate telephone numbers to ensure that the register referred to in Article 116/1, § 1, of the Act of 13 June 2005 on electronic communications is complete. This monitoring resulted in a fine for one operator, as specified in Annex C.

Preventing bill shock. Consumers with a postpaid mobile subscription must be notified by their operator when their monthly allowance is reached. The



operator must also send them a warning message when they reach the monthly fee plus an amount specified by the consumer, or, by default, 50 euros.

In 2021 the BIPT carried out inspections in this regard. However, in 2022 it was established that this

mechanism no longer worked for one smaller operator. As that operator had gone through a reorganisation, the BIPT, however, did not opt for a formal procedure but decided to monitor the adoption of the bill shock mechanism.



Tariff simulator. The BIPT verified for all operators included in the tariff simulator whether the links referring the user from the simulator to the operators' websites and the tariff plans in question were still working properly. Often that was not the case. A great deal of these links led to tariff plans that no longer existed or were no longer up-to-date. This problem was observed for the majority of the operators. The BIPT contacted the operators regarding this issue. The operators cooperated duly and, in the days and weeks that followed, the links were updated.

The operators are also obliged to provide for a button in the customer area of each subscriber redirecting the latter directly to the tariff simulator. That button has to be clearly visible and indicate that by clicking on it, the subscriber can verify what are the best offers on the market. All operators comply with the obligation to provide for such a button. The only exception was a small operator who, after having been contacted by the BIPT, provided for the required button in the customer area. In a few cases the button's visibility left much to be desired as several clicks were needed for instance. This problem has been remedied by the operators concerned after having been contacted by the BIPT regarding this issue.

2.2.6. Monitoring compliance with obligations by operators in the postal services sector

Compliance with the postal regulatory framework. In conformity with the postal regulatory framework, the BIPT each year carries out a number of inspection missions, mainly involving the universal service.

Delivery times. Each year the BIPT verifies the delivery times. These verifications are then submitted to the Council for a decision. The inspection of the 2021 delivery times did not, however, result in a Council Decision as bpost's statistics still have to be corrected.

Bpost prices. The price of the universal postal service must be affordable, cost-oriented, non-discriminatory and transparent. The tariff increase of the services belonging to the small user basket⁴⁵ is approved by the BIPT beforehand. As regards the 2023 tariff increases for these services, the BIPT Decision of 22 November 2022 concluded that the 2023 tariff changes comply with the current legislation. However, the BIPT notes that the new postal legislation has made it impossible since 2018 to ensure an effective assessment of the cost orientation principle. Therefore, the BIPT could only acknowledge the fact that the 14.96% average tariff increase requested by bpost complies with the legal provision concerned, that would allow increases up to 30% on average, without being able to assess the cost orientation separately.

Customer satisfaction survey. In its opinion of 25 January 2022 on the 2020 improvement plan and the 2021 action plan of bpost following the customer satisfaction survey for the year 2020, the BIPT establishes that in 2020 the global general satisfaction of the private individuals and small companies increased by two percentage points each time, respectively to 73% and 65%. The BIPT draws the attention to the downswing of the results of bpost's customer service and advises bpost to develop appropriate initiatives to improve this service. The BIPT also encourages bpost to develop targeted actions to improve the customer satisfaction following the analysis of the causes of the dwindling results.

^{45.} The small user basket includes services that are frequently used by private persons and SMEs and to which single-piece rates apply (prices are not influenced by the number of items deposited or by the postal preparation thereof), namely: domestic standard letter post and standard outgoing cross-border mail weighing 2 kg or less; outgoing domestic and cross-border postal parcels up until 10 kg, registered items and outgoing domestic and cross-border items with declared value.





Frequencies and numbers are only available in a limited quantity. An efficient use of these scarce resources is crucial to ensure fair competition and allow innovation. International coordination is crucial in this area as well. The BIPT actively takes part in international expert groups striving after the rational use of frequencies and numbers (ITU, RSPGRSC, CEPT, ...) in the context of new applications and new technologies.

2.3.1. Numbering plan management

The BIPT is tasked with managing the national numbering plan and the granting and withdrawal of rights to use those numbers. To that effect, the BIPT works together with all other regulatory bodies in Europe to have the policy approaches regarding numbering in Europe converge as much as possible.

Effective management. As the authority managing the numbering plan, the BIPT ensures that this scarce resource is used as efficiently as possible. Therefore, the numbering plan is regularly adapted to allow for new services and to continue to safeguard the numbering space if necessary. For instance, the Decision of 25 January 2022 regarding the allocation of a range of non-geographic numbers for non-interpersonal communications services across the European Union territory was adopted. The operators' activities have also been coordinated in order to create a new database of all

Belgian telephone numbers for the operators of emergency services, the providers of directory enquiry services and the publishers of directories. On 31 December 2022, 27 different operators are connected, providing data for a total of 7.46 million fixed telephone numbers and 9.83 million mobile telephone numbers. Moreover a dialogue was engaged in with the sector to define the operational process as well as the terms for reimbursement of the remaining value of a prepaid card when switching to a new mobile operator, as explained in point 1.3.1 of this report.

Operational management. In 2022, the BIPT handled 559 numbering requests. As the graph opposite shows, requests for modifications and allocations are on the increase, due respectively to the transfer of Scarlet and Mobile Viking assets to Proximus, and to major requests from Sona Business and BICS.

Detail handled numbering files 202 200 180 137 140 118 115 120 100 80 40 20 Restitutions Reservations Allocations

2.3.2. Optimal use of radio spectrum

The BIPT assigns frequency bands to operators in order to distribute the radio spectrum in an optimal fashion. Operators thus obtain rights of use to provide mobile products to the end-user.

Allocation of user rights and multi-band auction.

The BIPT is in charge of managing the radio frequency spectrum. In the past, the BIPT granted rights of use for 2G, 3G and 4G. The 2G and 3G licences expired on 15 March 2021. The BIPT renewed the licences four times (a first time from 16 March 2021 to 15 September 2021⁴⁶, a second time

46. Decision of 23 February 2021 on the extension of the 2G and 3G licences.



from 16 September 2021 to 15 March 2022^{47} , a third time from 16 March 2022 to 15 September 2022^{48} and a final time from 16 September 2022 until the end of 2022^{49}).

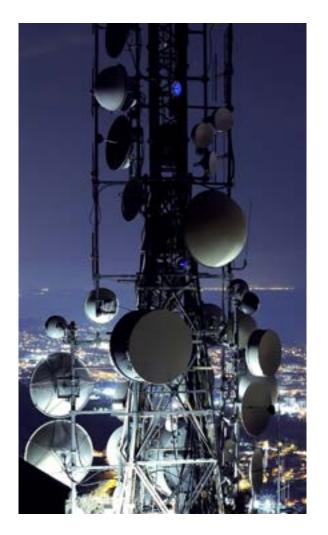
In the context of the European roll-out of the 5G technology, the 3400-3800 MHz frequency band, which is important for 5G, should have been made available before 31 December 2020. Awaiting the final auction, the BIPT had already allocated temporary user rights for part of the 3400-3800 MHz frequency band as of July 2020. These temporary user rights expired on 1 September 2022.

Per frequency band specific requirements are defined via the necessary implementation decrees (for instance, the minimum speed to be provided by each operator through the band in question, the territorial coverage obligations, the spectrum reserved for the existing and new players, the rules regarding the maximum amount of spectrum each player can purchase). Following a political agreement within the Consultative Committee the royal decrees needed for the multi-band auction were only published on 23 December 2021. Early 2022 the BIPT started the preparation of the auction.

On 22 March 2022, following a call for candidates in January 2022, the BIPT declared eligible the candidatures of the current mobile operators having their own network, namely Orange Belgium SA, Proximus SA and Telenet Group SA, and the new

operators Citymesh Mobile SA and Network Research Belgium SA, for participation in the auction of radio spectrum made available. Everyone participated in the simultaneous auction of the radio frequency bands 700 MHz, 900 MHz, 1800 MHz and 2100 MHz as well as the 3600 MHz band. Citymesh SA owns 51% of Citymesh Mobile SA and RCS & RDS SA, whose main shareholder is Digi Communications SA, owns the other 49%. Only the 3 existing Mobile Network Operators (MNOs) participated in the auction of the 1400 MHz spectrum.

The actual auction of the new 5G spectrum (700 MHz, 1400 MHz, 3600 MHz) and the existing 2G and 3G spectrum (900 MHz, 1800 MHz, 2100 MHz) took place in June and July 2022. Each of the five candidates was able to obtain a part of the radio spectrum, which will allow them to define the mobile telecommunications landscape in our country for the next 20 years. The yield of 1.4 billion euros considerably exceeded the entry price set (approximately 790 million euros) prior to the start of the auction, because of higher bids during the auction that comprised successive rounds with ascending prices.





^{47.} Decision of 31 August 2021 on the extension of the 2G and 3G licences.

^{48.} Decision of 11 March 2022 on the extension of the 2G and 3G licences.

^{49.} Decision of 13 September 2022 on the extension of the 2G and 3G licences.

A fourth mobile operator expected on the Belgian market following the spectrum auction

The table opposite shows the final results of the entire multi-band auction, itemized per frequency band and per candidate

Frequency band	Candidate	Spectrum quantity	Amount
	Citymesh Mobile SA	5 MHz duplex	€28,005,000
900 MHz band	Orange Belgium SA	10 MHz duplex	€56,720,800
	Proximus SA	10 MHz duplex	€57,410,800
	Telenet Group SA	10 MHz duplex	€57,410,800
	Citymesh Mobile SA	15 MHz duplex	€27,000,000
1000 MHz hazad	Orange Belgium SA	15 MHz duplex	€27,000,000
1800 MHz band	Proximus SA	25 MHz duplex	€109,880,000
	Telenet Group SA	20 MHz duplex	€69,390,000
	Citymesh Mobile SA	5 MHz duplex	€9,000,000
2100 MHz band	Orange Belgium SA	15 MHz duplex	€60,030,000
2100 MHZ band	Proximus SA	25 MHz duplex	€144,590,000
	Telenet Group SA	15 MHz duplex	€60,420,000
	Citymesh Mobile SA	5 MHz duplex	€19,335,000
700 MJ la band	Orange Belgium SA	10 MHz duplex	€122,860,000
700 MHz band	Proximus SA	10 MHz duplex	€122,870,000
	Telenet Group SA	5 MHz duplex	€21,340,000
	Citymesh Mobile SA	50 MHz	€30,990,000
	Network Research Belgium SA	20 MHz	€10,970,000
3600 MHz band	Orange Belgium SA	100 MHz	€54,850,000
	Proximus SA	100 MHz	€56,320,000
	Telenet Group SA	100 MHz	€55,800,000
	Orange Belgium SA	30 MHz	€69,650,000
1400 MHz band	Proximus SA	45 MHz	€108,890,000
	Telenet Group SA	15 MHz	€38,000,000



The user rights for the 700 MHz and 3600 MHz bands came into effect on 1 September 2022⁵⁰. The rights for the 1400 MHz band will come into effect on 1 July 2023⁵¹, while the starting date for the 900 MHz, 1800 MHz and 2100 MHz bands is set on 1 July 2023⁵². The reader can find these decisions on the BIPT website.

Operators having obtained rights of use in a certain frequency band are in principle free to decide which technology they use, but in practice certain frequency bands are mainly used for a specific technology. The BIPT nevertheless has had to take transitional decisions to allow for the reorganisation of the 1800 MHz and 2100 MHz bands⁵³ as well as the 900 MHz band⁵⁴.

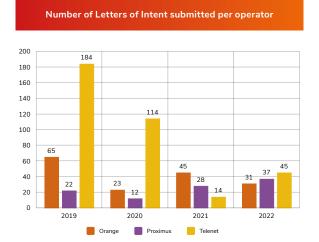
The 3800-4200 MHz band. The BIPT formulated a proposal of a royal decree regarding the private broadband radio local area networks that was submitted for consultation in September 2022. At a European level the 3800-4200 MHz band is not reserved for the public mobile operators. An ad hoc public consultation had already been organised in December 2019 (at the request of the Minister of Telecommunications) but the comments received in that context had become outdated.

The draft Royal Decree aims to enable the BIPT to authorise private local area networks using 4G or 5G technologies in the 3800-4200 MHz frequency band. Following the approval in 2023 the BIPT will be able

to allocate the licences for the private local 5G networks.

Antenna site sharing. Operators have to mount their installations on existing supports as much as possible and make the masts they own available for use by the other operators.

This is the reason why, before introducing a request for an urban development permit, an operator has to sound out whether the other operators show interest in site sharing. He needs to send a "Letter of Intent" ("Lol") thereto.



As shown in the chart above, we notice that the number of Lols has been decreasing for several years now. However, this does not mean that operators share less sites. Generally, the sharing of a site indeed lasts several years and only comes to an end when the site is dismantled, due to external events, such as the termination of the lease for the location where the site has been established.

Furthermore, operators do not necessarily submit an Lol when they wish to join an existing antenna site. If the project does not require the operator to obtain a town planning permit, the latter directly addresses a PSR (Pylon Sharing Request) to the operator who owns the support structure.

Finally, the decrease in the number of LoIs may also be due to a wait-and-see attitude of the mobile operators in relation to the arrival of 5G, which will require the deployment of new antennas. Indeed, we see that 5G roll-out is less significant in the Walloon and Brussels regions. Moreover, the RAN sharing agreement between Proximus and Orange can influence the number of LoIs of these operators. The sale of Telenet Group's masts to Belgian Tower Partners is another significant event that may have had an impact on the number of LoIs.

The non-profit organisation RISS (Radio Infrastructure Site Sharing) ensures co-ordination between the operators involved. This organisation is monitored by the BIPT and supports the development and the use



^{50.} Decisions of 23 August 2022 on the granting of rights of use in the 700 MHz and 3600 MHz bands.

^{51.} Decisions of 16 November 2022 on the granting of rights of use in the 1400 MHz band.

^{52.} Decisions of 16 November 2022 on the granting of rights of use in the 900 MHz, 1800 MHz and 2100 MHz band.

^{53.} Decision of 20 October 2022 on the reorganisation of the 1800 MHz and 2100 MHz bands.

^{54.} Decision of 16 November 2022 on the reorganisation of the 900 MHz band.

of a database of antenna sites, kept up-to-date by the BIPT that published it for consultation on the website sites.bipt.be. In 2022, the BIPT was notably active in different discussions within that organisation, among other things as regards its support following various requests/questions from operators and to support the introduction of the new framework contract among the operators regarding site sharing as well as the realisation of the reconciliation agreement among various parties.

2.3.3. Continuity and innovation

The BIPT is attentive to maintaining service continuity and is keen to support innovation. This goes beyond the organisation of auctions: measuring the level of saturation of current networks and providing reliable information to the general public on new technologies also clearly promotes service continuity and innovation.

Raising awareness on 5G. The Federal Council of Ministers decided on 22 January 2021 to create a knowledge and learning platform regarding 5G. The aim is to create support for the introduction of 5G among stakeholders, including citizens. It is in this context that the platform "About 5G" was created in June 2021. "About 5G" provides exhaustive and objective information to the citizen. To this end, the BIPT not only makes its technical expertise available, but also coordinates the collaboration with the other competent bodies, Sciensano and the academic experts who contribute to the platform.



Scepticism about 5G often stems from a variety of stories, which, a lot of the time, are based on research that generally lacks scientific foundation. However, the 5G knowledge and learning platform aims to inform the citizens in an objective and neutral manner, which includes tackling fake news. It is therefore of the utmost importance that the information presented on the platform is scientifically validated by a recognised body that can guarantee the independence of its intervention. That is why an agreement was concluded with Sciensano, a research institution that is recognised by the Belgian Science Policy and is the spokesperson par excellence for the public authorities on health issues.

In 2022, the BIPT also called on this cooperation agreement to highlight scientific research into the possible health effects of electromagnetic fields generated by radio frequencies (EMF-RF), on the 'About 5G' website. This collaboration is expressed through the quarterly publication of a review of the literature on the 'About 5G' website, commenting on various studies in a comprehensive yet nuanced way. In collaboration with Sciensano, blog articles have also been published on the impact of RF-EMF on insects, the possible link between RF-EMF and Alzheimer's disease, etc., as well as additional contributions on 5G infrastructure, the adaptation of radiation standards, multi-band auctions, etc.



2.3.4. Avoid and remedy harmful interferences

The radio spectrum is used as a support for communications: it represents a natural scarce resource which must be rationally and efficiently managed if it is to be exploited to the full. The BIPT assigns a part of it to each category of equipment using spectrum in order to limit the risk of interference to a minimum. Should interferences still occur in spite of everything, the BIPT may act as a "police of the radio waves" to put a stop to any form of harmful interference.

Defining the technical requirements

Radio equipment. The BIPT is in charge of defining technical regulations for the use of radio communications equipment.

In this context it has published the following decisions:

- Decision of 29 March 2022 on general authorisations.
 This decision determines which equipment can be used with a general authorisation. Therefore no steps have to be taken at the BIPT. No fees are due for this use either. This decision also modifies a series of radio interfaces to cover the latter by a general authorisation.
- <u>Decision of 28 June 2022</u> on radio interfaces related to short-range devices and WAS/RLAN

(Wi-Fi). These interfaces regard the non-specific short-range devices in the 874-876 MHz and 915-921 MHz bands, the WAS/RLAN (Wi-Fi) in the 5 GHz band and the enclosed nuclear magnetic resonance applications (NMR).

- Decision of 19 July 2022 on radio interfaces for satellite earth stations. These interfaces regard the fixed earth stations as well as the earth stations on mobile platforms, mobile or transportable earth stations, earth stations installed aboard vessels or aircraft, repeaters of radionavigation signals as well as the earth stations for meteorology and space operations.
- Decision of 20 December 2022 on radio interfaces related to intelligent transport systems (ITS). ITS for roads include cooperative systems based on real-time communications between the vehicle and its environment. Urban railway ITS consist of automated public transportation systems for the operation of urban and sub-urban services. The ITS can considerably improve the transportation system's efficiency, traffic safety and comfort during travels.

These <u>radio interfaces</u> lay down the technical requirements the equipment has to meet. They enable the efficient use of the frequency bands and avoid harmful interferences. They include the technical characteristics the equipment has to meet and the frequency bands for different types of equipment.

Within the framework of technology neutrality, a number of decisions have been taken to use different technologies in parallel on certain frequency bands:

- <u>Decision of 8 February 2022</u> on the technical and operational conditions for the avoidance of harmful interference in the 1427-1517 MHz band.
- Decision of 14 June 2022 on the technical and operational conditions for the avoidance of harmful interference in the 900 MHz and 1800 MHz frequency bands.

These decisions also allow the introduction of 5G in a number of specific frequency bands.

Putting an end to harmful interference

These monitoring actions in the field are carried out by the BIPT's technical teams located in the regional centres of Liège, Anderlecht, Ghent and Antwerp.

To carry out its monitoring actions, the BIPT uses state-of-the-art equipment. Depending on the type of measurements, use will be made of portable equipment, a measurement vehicle or the monitoring stations in the BIPT regional technical centres.





The BIPT continued the modernisation of its monitoring resources, both fixed and mobile. Six fixed stations have thus been deployed on the territory. Interconnected and usable remotely, they allow a better visualisation of the spectral occupancy, to record the spectrum for several days, to detect undesirable transmissions and to carry out an initial localisation of the transmission zone.

Preventive monitoring. The BIPT systematically and by way of prevention monitors the private radio communications networks when a new licence is issued (permanently or temporarily) or when the structure of an existing network is changed. In this context it is verified whether the characteristics of the network installed correspond to what is specified on the licence (see 3.1.4.). The objective is twofold: avoid interference and ensure that the network operator receives a correct invoice.

The health context allowed for a gradual resumption of the preventive inspections in 2022. We were able to carry out 694 inspections, compared to 365 in 2021.

In order to be able to take measures immediately when the radio legislation is breached, the BIPT technicians have the power to act as criminal investigation officers. In 2022, 75 official reports were drafted in the context of the spectrum monitoring and 26 interfering transmitters were seized.

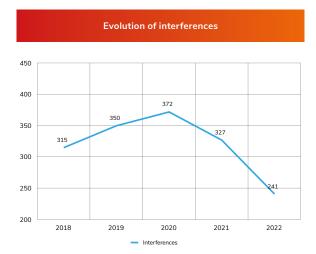
Monitoring during major events. Here, the BIPT ensures that the networks used are licensed and that the licensing terms are complied with. This guarantees an immediate solution should interferences arise. In 2022, the inspection of events was resumed and the BIPT was present at 30 major events.

Examples of major events the BIPT attended:

- Tour de France
- Total 24H of Spa
- Pukkelpop
- Wellington Renbaan
- 24h Vélo Louvain-la-Neuve
- The Masked Singer
- Reconstitution de la Bataille de Waterloo

694 preventive inspections carried out in 2022

Resolving interferences. Governed from its headquarters in Brussels, the BIPT has four regional centres resolving interferences across the entire national territory. The total number of interferences in 2022 amounts to 241, versus 327 in 2021, namely a 26% decrease compared to the previous year.







The victims and sources of interference are divided as follows:

	Not identified yet	Aeronautical	Broadcasting	Defence systems	Fixed connections	Land mobile	Maritime	Meteorology	Radio astronomy	Satellite systems (civil)	Short-range devices	Non-radio	Other	Vanished	Unknown	Totals
Not identified yet																0
Aeronautical						1				1				2		4
Broadcasting	1		8							1		2		2		14
Defence systems																0
Fixed connections															1	1
Land mobile	1		1			45					9	8		12	9	85
Maritime							30							9	1	40
Meteorology																0
Short-range devices						2					27	4	1	10	12	56
Radio astronomy																0
Satellite systems (civil)	2									1					1	4
Non-radio												3				3
Other						1					1	17	3	5	6	33
Vanished															1	1
Totals	4	0	9	0	0	49	30	0	0	3	37	54	4	40	31	241



Over 35% (85) of interference victims belong to the category "Land mobile"⁵⁵, within which a large majority of the interferences (71%) are caused by the use of repeaters active in the frequency bands used by the mobile operators. As a reminder, this type of repeaters may only be used by mobile operators, or with their authorisation. Next come the short-range devices⁵⁶ (23%), maritime services (16%) and broadcasting (6%). Aeronautical interference makes up 2% (4) of the total interferences.

55. Including among others the networks of mobile operators, trunk networks and PMR devices. 56. Garage door remote controls, baby monitors, wireless doorbells, etc.



2.4. Efficient functioning

The BIPT wishes to be an accessible regulator who, as an attractive employer, draws capable personnel. That is why it is pursuing its efforts to create a modern and efficient work environment by taking action regarding digitisation, organisation management and internal monitoring. In the context of its activities, the BIPT also takes into account sustainability factors and the impact on its environment.

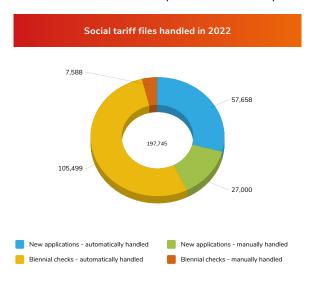
2.4.1. An accessible regulator

Simplified administrative file handling

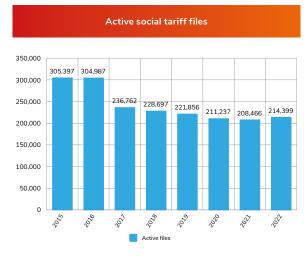
Examinations. In November 2019, the BIPT launched a public tender for the creation of a web application for the organisation of examinations for operator certificates, both for shipping and for radio amateurs (see 3.1.2.). The contract includes the creation of an examination website, a registration counter, online payment and a link to the BIPT customer database. This project is in the home stretch and will soon be completed.

Social tariffs. As regards the monitoring of the granting conditions for the electronic communications social tariff, the BIPT uses a beneficiary database called "STTS", which enables an automated (partial) check of the granting conditions. The BIPT does not only carry out this verification upon the request with the operator but can also verify whether the applicant in question still meets the terms and conditions two years after the allocation.

In 2022, about 85,000 new requests and more than 110,000 two-yearly verifications were processed in this manner. This was mostly done automatically.



In 2017, the verification automation project was completed. This explains why the number of active files has been constantly decreasing over the past few years. By the end of 2022, 214,399 persons benefited from the social tariff. The limits for the automatic verification have hereby been reached, considering the complexity of the current granting conditions. Moreover, the security of the STTS platform has been attuned to the requirements of the General Data Protection Regulation.



Handling of complaints regarding the functioning of the BIPT

As a natural complement to its values (independence, reliability, transparency), the BIPT attaches great importance to the quality of its services. In order to provide an adequate and fast response to possible complaints, the designated complaint coordinator works closely with all operational services. Secondly, organisational lessons can be drawn from the analysis of complaints.

In 2022, the complaint manager appraised and monitored 8 admissible complaints, over a total of 53



2.4. Efficient functioning

messages received. As was the case last year, the number of admissible complaints remains rather low, particularly when compared with the large volume of interactions (e-mails, letters, telephone calls, visits, etc.) between the BIPT and its "customers". This relatively low number is a source of satisfaction for the staff, as well as a testimony to their daily commitment to providing quality services. Each of the messages or admissible complaints received a detailed response tailored to the specific interests of the senders. The federal Ombudsman (who may be called upon to examine a case under a cooperation agreement) only had to refer one case in 2022.

2.4.2. Competent staff

Personnel. By the end of 2022, the BIPT had 258 staff members: 235 statutory agents and 23 contractual agents. This is detailed in Annex B. This figure represents 248.4 full-time equivalents. Among them, 16 staff members (16 FTEs) were put at the disposal of the Office of the Ombudsman for the Postal Sector and 17 staff members (16.6 FTEs) were put at the disposal of the Office of the Ombudsman for Telecommunications. Their task consists of handling the consumer complaints in their respective sector.

In 2022, the BIPT hired 18 new staff members at different levels and with various profiles: More in particular, it regards three engineer-advisors, three

advisors, seven administrative employees (three of whom for the mediation services) and five technical employees.

In the course of the year, an adaptation of the BIPT's organic framework was also prepared in order to be better able to find the ever greater competences that are required to carry out the BIPT's various missions, and to respond adequately to the BIPT's increasingly preponderant role in cybersecurity and consumer protection, both in the field of electronic communications and in that of post/e-commerce. On 16 December 2022 that resulted in a new Royal Decree laying down the organisational staff numbers of the BIPT.

Training. In 2022, for the first time since the creation of the Training Department, the number of training days per full-time equivalent reached four.

The most remarkable project was the launch of an ambitious program of internal training courses intended for the technical teams of the Monitoring Department.

Moreover, 11 internal workshops were held. The themes and target audience of these workshops are varied (e.g. workshops on the BIPT management for new staff, workshops on 5G or fibre optics for all members of staff).

The language plan, that encourages to take French or

Dutch classes, continues to attract candidates and to promote the bilingual culture of the BIPT.

As far as training projects are concerned, in collaboration with the FPS BOSA, we can note a leadership training project for A and B level team leaders, but who have not yet had the opportunity to train in this area. This was particularly well received.

Various other training projects, specific to certain departments, have also been accomplished. It regards specialised technical trainings (e.g. spectrum monitoring), IT courses (e.g. SharePoint online) or economic trainings (e.g. state aid).

The specific individual training needs of members of staff have also been taken into account (e.g. communication training, IT training, conferences on economic or legal issues, etc.).

Finally, training courses resulting from our legal obligations (first aid, prevention advisor, confidential advisor, ...) have been organised as well, as is appropriate.

In terms of the organisation of the Training Department, the first phase of the training database project has been finalised, paving the way for the department to become increasingly professional.

Well-being. In February a new prevention advisor was appointed. Various other members of staff have been able to take the Prevention Advisor training





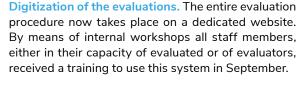
2.4. Efficient functioning

course, so that a substitute Prevention Advisor can be appointed if the current Prevention Advisor is temporarily unable to carry out his duties due to unforeseen circumstances.

After a long COVID period, the return to the workplace took place in March. The possibility of working from home two days a week for most members of staff whose duties allow them to do so was maintained.

Change in status. On 8 July the Royal Decree of 27

June 2022 modifying the BIPT's administrative and pecuniary statute was published. The changes concern, among other things, the introduction of a trial period for members of staff who have been promoted and the elimination of the differences in treatment between contractual and statutory staff, mainly from a financial point of view.



Integrity. As was the case the previous years, the 2022 internal operational plan comprised a chapter dedicated to awareness-raising of the BIPT staff as regards integrity and the accompanying risks. With that goal in mind, an internal communication was sent to all staff members regarding the main integrity risks as defined by the market players in the domain of integrity, namely the persons who, because of their function, have a better view of these risks within our organisation. In that context as well, data regarding integrity (number of complaints, consultations of the confidential advisors, disciplinary procedures) of the year before were reported to the Council. Next, an article entitled "Freedom of speech vs. duty of loyalty" was published in the newsletter destined for the staff.

Moreover the implementation of 13 action points regarding the 2021-2023 integrity policy, which is almost completed, was pursued and was also reported on to the Council.



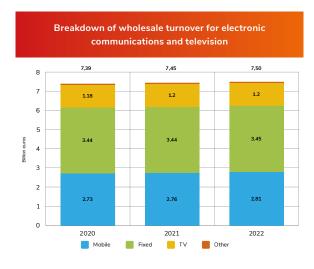


3.1.1. Indicators of the electronic communications market

Each year, by the end of June at the latest, the BIPT publishes the electronic communications sector's statistical report. This part discusses the main trends observed in this sector in 2022.

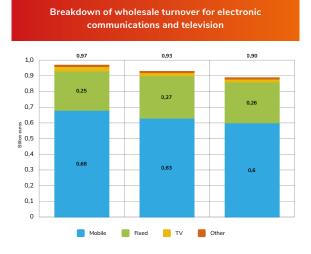
Turnover and investments

In 2022, the electronic communications and TV sectors yielded a turnover of €8.4 billion, which is a slight increase (+0.3%) compared to 2021.



Turnover on the retail market increased (+0.8%) to 7.5

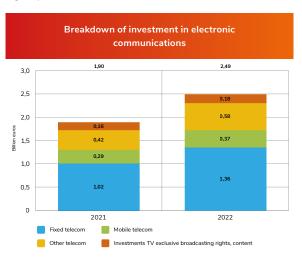
The turnover on the wholesale market dropped by more than 3.8% to \le 0.90 billion due to the loss of turnover on the mobile (-4.4%) and the fixed (-3.4%) markets.



Investment in fixed and mobile electronic communications (excluding licences and capital expenditurelinkedtotheleasing of telecommunications infrastructure) has reached a record figure of €2.31 billion (+€571 million) in 2022. On an annual basis,

there was a 33% increase following the switch from copper to fibre.

When including television (without broadcasting rights), investments reached €2.49 billion.



Investments are necessary to meet the European Gigabit connectivity goal by 2030 (Gigabit for all). With 72.8% of Belgian households having access to 1 Gbps by the end of 2022, Belgium is well on track to meet the gigabit target on schedule.

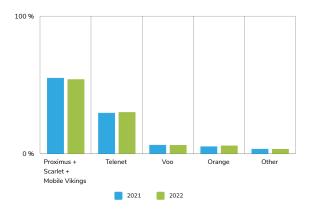




Market players

Proximus (Scarlet and Mobile Vikings included) is the main national player in the fixed segment despite a drop in market shares: -1 pp, amounting to [50-60]%. Orange and Telenet have acquired additional market shares: Orange gained 0.7 pp, achieving [0-10]% and Telenet's share increased by 0.5 pp achieving [30-40]%.

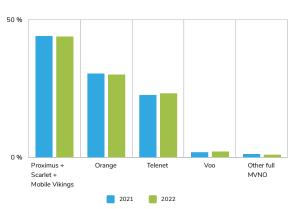




On the mobile market, only Telenet and VOO succeeded at reinforcing their position in terms of turnover. Both the market leader, Proximus, and the 2nd most important player, Orange, lost market

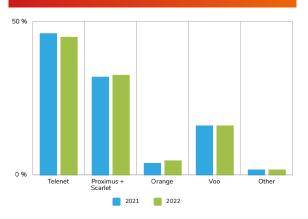
shares. Their combined market share, however, remains over 70%.





On the national television market, the turnover of the market leader, Telenet, dropped by 1.3 pp achieving [40-50]%. The lost market share was seized by Proximus (+0.6 pp for a total of [30-40]%) and Orange (+0.8 pp for a total of [0.10]%).

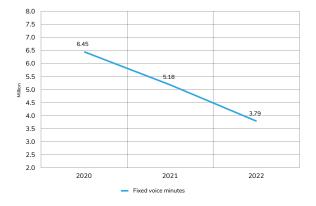
Market shares in terms of turnover - television



Fixed services (voice - broadband)

The total number of access to the fixed telephony network dropped by 10.3% in 2022, amounting to €2.97 million. The decrease in access numbers also goes hand in hand with a decrease in fixed voice telephony traffic: -27% for a total of 3.79 billion minutes. However, the number of fixed broadband connections in Belgium continued to increase in 2022: +1.9%.



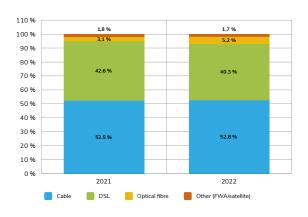


Annual net additions of fixed broadband lines in 2019-2022 and number of fixed broadband lines in 2022



The growing national footprint of fibre (14.5% in August 2022⁵⁷ and over 21% by the end of 2022⁵⁸) has caused the share of fixed broadband lines on fibre networks to slowly increase from 3.1% to 5.2% of the total number of lines. Fixed broadband on the copper network fell by 2.3 percentage points to 40.3%, while cable remains the most important technology, with a slight increase of 0.2 percentage points to 52.8%.

Fixed broadband lines per technology, end of 2022

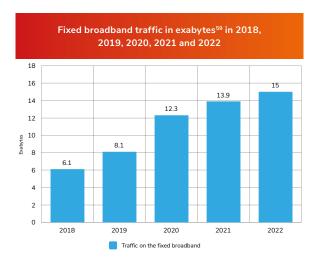




57. Source: BIPT fixed atlas 58. Source: Proximus, quarterly report, Q4 2022



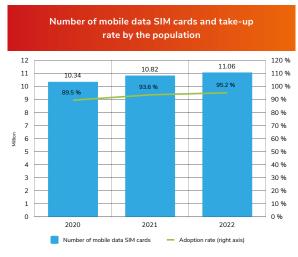
On average, 251 GB were consumed per month per fixed broadband line, i.e. 14 GB more than in 2021. The fixed broadband traffic increased by 8%, which is less than during the two previous years (+13% in 2021 and +52% in 2020).



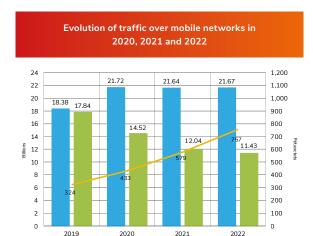
Mobile services

On the mobile market, the number of active SIM cards (excluding M2M) amounted to 12.42 million, i.e. 1.4% more than a year earlier.

With the growing success of the Internet of Things (IoT), more and more devices and sensors have been connected to the Internet in order to exchange information among each other, so that by the end of 2022, about 6.76 million (+17%) IoT objects were connected. The number of data SIM cards reached 11.06 million (+2.2%). In 2022, there were 95 active SIM cards per 100 inhabitants in Belgium.



The number of mobile call minutes remained stable, about 21.67 billion. The number of text messages dropped by 5% to 11.43 billion in 2022. Mobile data consumption increased by 31% to 757 petabytes 60 . The average monthly usage volume per active data SIM card increased from 4.9 to 6.1 GB.



Billions of SMS

Petabytes (right axis)

Billions of minutes



^{59.} One exabyte equals 1 billion gigabytes (GB).

^{60.} One petabyte (PB) equals one million gigabytes (GB).

Television

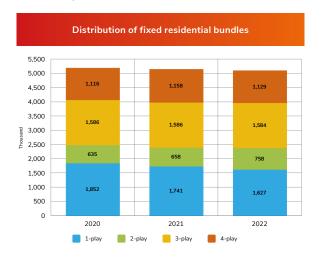
The drop in number of television connections with access to conventional television, via a decoder and via the Internet (application), has become even more marked: -61,000 for a total of 4,25 million connections in 2022 compared to -36,000 in 2021 and -17,000 in 2020. With 20.000 less connections than the previous year, digital television played a part in that drop for the first time.

The Internet television connections (91,000) were unable to counterbalance the drop in connections to television with access to conventional TV.

Number of TV subscriptions and analogue/digital break-down 10 9 8 7 4.36 4.35 4.31 4.25 1 0 2019 2020 2021 2022

Bundles

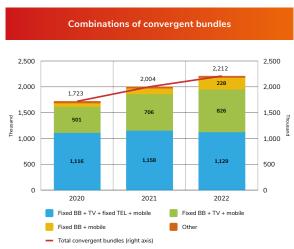
Multiple play, or the purchase of different services in a single subscription, continued to grow in 2022. The number of residential customer relationships concerning bundles rose by 69,000 to 3.47 million, which led to a decrease in the number of customers subscribing to standalone fixed and television services by 45,000 for a total of 1.75 million.



Only double play made a positive contribution (+100,000) to the growth of multiple play.

Convergent bundles continue to grow: +207,000 for a total of 2.21 million. On the bundle market they achieved a share of 64%, i.e. 5 pp compared to the year before.

Despite a loss of 29,000 clients, quadruple play remained the main combination of convergent bundles. The convergent triple-play offer combining fixed broadband, television and mobile telephony and the convergent double-play offer combining fixed broadband and mobile telephony increased notably in 2022 by respectively +121,000 and +118,000.



- 61. Bundles are commercial offers including at least two of the following services: (1) fixed broadband, (2) fixed telephony, (3) mobile services (voice and/or broadband) and (4) television.

 Bundles are:
 - a. Pure bundles, consisting of services which are not available individually;
 - b. Combinations of linking and linked services consisting in a service the sale of which is conditional on the purchase of another service. The first product is called the "linking product" and the second on the "linked product".
 - c. Mixed bundles, which combine services that are available separately, but the joint purchase is encouraged by the granting of permanent advantageous conditions which cannot be obtained when the services are purchased separately. These conditions may include discounts or non-monetary benefits (such as more data consumption). Temporary promotions and gifts must not be taken into account.

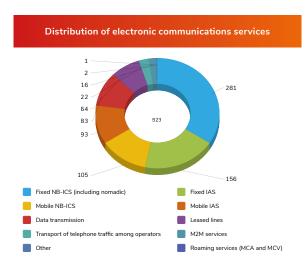


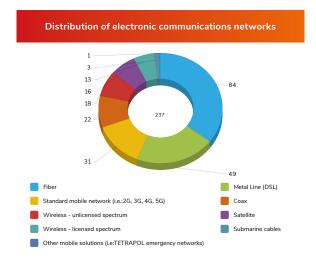


3.1.2. Notifications

Access to the electronic communications market is free. A newcomer on the market can start its activities following a simple notification to the BIPT. A vade mecum published on the BIPT website facilitates their entry onto the market.

At the end of 2022, there were 445 operators and their notifications concerned the following services and networks⁶²:





3.1.3. Networks

Fixed. Because of the density of their infrastructure, Proximus, Telenet and Brutélé/VOO are the operators with the largest coverage of the country in terms of fixed networks. They provide their services to the main public and undertakings. Their tariff plans for the residential market can be consulted in the tariff simulator besttariff.be (see 2.2.1.).

The operators with a more limited network coverage can use the infrastructure of the bigger operators to provide their services to their own customers, both private and business. This is "wholesale" access. Examples are Orange, which uses Telenet's and

VOO's cable to launch its own fixed Internet/digital TV tariff plans on the residential market, and edpnet and Destiny, which have access to Proximus' fibre network to provide cloud communication solutions to residential and business customers. The BIPT plays a crucial role in such wholesale access.

Mobile. As regards the mobile network operators, Proximus, Telenet Group and Orange have deployed their own networks. They are the Mobile Network Operators or MNOs.

MVNOs (Mobile Virtual Network Operators) are mobile service providers who do not have their own mobile network. The most advanced MVNOs (known as Full MVNOs) do have their own fixed network assets, but not their own radio access network. There are a few full MVNOs on the Belgian market, the main ones being Lycamobile and VOO. There are also light MVNOs which operate their own customer management and billing system. Examples in this category are Youfone and edpnet.

3.1.4. Licences, examinations and certificates

The BIPT is responsible for the management and monitoring of the radio spectrum in Belgium. The BIPT assigns the frequencies and issues licences for the "radio users", either the "operators" who have obtained rights of use for public radio communications, or licences for private radio communications.

62. The nomenclature of networks and services used in the graphs has been modified to be consistent with the European nomenclature used by BEREC. It is not possible to compare this with last year.





As regards the use of private radio communications stations, the BIPT's activities include the granting of licences and the organisation of examinations.

Licence granting

The BIPT issues licences for the use of private radio networks and individual radio stations. Based on those licences it is possible to verify whether the network is appropriately licensed upon inspection.

Licensed radio stations and networks are subdivided into categories, depending on their destination and the manner in which they operate⁶³:

1st category:

private mobile radio communications networks, except for those falling under category 3. These include private mobile radio communications networks mostly used for professional ends, for instance by taxi companies, factories, etc. (permanent licence) or at construction sites, events, etc. (temporary licence);

2nd category:

private fixed radio communications networks. These refer to radio relay links⁶⁴;

3rd category:

mobile radio networks set up by governmental bodies, companies active in transportation by railways and public transport companies, hospitals and bodies for medical or social help for strictly humanitarian and non-profit purposes. This category covers the same use as category 1 licences, only the licence holder has a different capacity;

4th category:

licences for maritime radio stations;

5th category:

private radio stations used by radio amateurs;

6th category:

licences for air navigation radio stations;

7th category:

general holder's licences or individual holder's licences. These licences have to be obtained in order to keep radio equipment without actually using it. Manufacturers, importers and distributors therefore have a general holder's licence for the radio equipment in question;

8th category:

this category actually regards operators' public radio communications. It refers to networks set up:

- a) by operators of point-to-point networks or pointto-multipoint networks;
- b) by operators of shared resource networks. This regards the so-called trunked networks using multiple radio channels, shared with other companies;

9th category:

licences for private radio networks or stations:

- a) used for trials or testing such as 5G test licences;
- b) using devices referred to in Article 33, § 2, of the Act of 13 June 2005 on electronic communications.
 In principle, these jammers are prohibited but there are a number of exceptions to the rule, for instance jammers in prisons;
- using radars not belonging to other categories, for instance weather radars, speed radars...;
- d) not belonging to any other category.

In addition, the BIPT also issues licences for the use of satellite stations, for instance for broadcasting vehicles for TV broadcasts through SNG or "Satellite-News-Gathering".

Licences issued in 2022 are detailed in Annex E.

Examinations to obtain operator certificates to use certain stations

Under normal circumstances, the BIPT organises maritime radio and radio amateur examinations each month. Following the pandemic, the organisation of examinations was able to resume at full speed, with weekly examination sessions in 2022. For the first time, the BIPT also went on site to administer examinations if the group of candidates was large enough. For the radio amateur exam two sessions were organised at the Euro Space Center in Redu, as part of an internship for young people. There was also

63. Subdivision laid down in the Royal Decree of 14 December 2018 amending the annexes to the Royal Decree of 18 December 2009 on private radio communications and user rights for fixed networks and shared resource networks.
64. Radio-relay links or radio communications are used instead of a telephone line or fibre to connect two sites.





elaborate collaboration with maritime partners to organise on-site examinations, including the navigation police, De Vlaamse Waterweg and Defence.

The examination for access to the operator certificate for stations on board vessels is necessary for each user of a radio station in the radio maritime frequency bands. Depending on the user, there are 4 types of examinations (and certificates), divided according to the level of difficulty:

- Restricted radiotelephone operator certificate: the basic certificate allowing the use of a VHF marine radio on the inland waterways and for pleasure sailing at sea;
- SRC ("Short Range Certificate"): for pleasure sailing at sea;
- ROC ("Restricted operating certificate): mainly intended for professional use for coastal navigation;
- GOC ("Global Operating Certificate"): mainly intended for professional use at sea.

For radio amateurs, three types of examinations are organised:

Examination C:

examination for the basic licence. This examination is simple and, when passed, gives access to the use of a

limited number of radio amateur bands with limited transmitting power.

Examination B:

the novice examination, which in terms of difficulty is between examination C and A. Passing this examination gives access to the use of most amateur radio bands with medium power.

Examination A:

extensive examination giving access, when passed, to all radio amateur bands with high transmitting power. It is better known as the "HAREC exam".

The exams organised in 2022 are detailed in Annex E.

The Directorate-General for Air Transport of the FPS Mobility and Transport organises the examination for the certificate of aircraft station radio operator. The certificate is, however, issued to the successful candidates by the BIPT.

The number of operator certificates issued in 2022 following a successful examination remained almost the same as in 2021. However, it should be noted that the chances of succeeding an examination to obtain a maritime operator certificate were considerably higher than for a radio amateur operator certificate.

The certificates issued by the BIPT are detailed in Annex E.







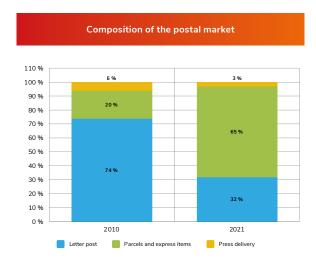
3.2.1. Postal market indicators

In addition to bpost and the three postal licence holders, another some 700 companies are active on the Belgian postal market. To follow the developments on the market, each year the BIPT conducts a survey among the major postal operators. In 2022, the data of 23 companies were processed for the year 2021. Their cumulated turnover amounts to over 90% of the postal sector's total turnover, creating an accurate image of the general trends on the Belgian postal market. All indicators and their evolution can be consulted on the BIPT website. In the second semester of 2023, the data shall be completed with the 2022 figures. Below are listed the main findings regarding the 2021 figures.

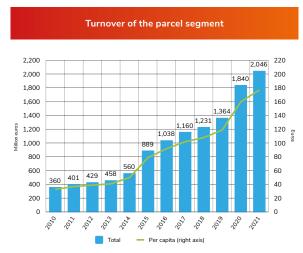
Services

After the record year for postal sector turnover growth in 2020 (16.2%), the sector's annual growth in 2021 is lower than the previous year (10.5%), a first since 2015. The total revenue from the postal sector amounted to \bigcirc 3.46 billion in 2021. There are two different underlying trends:

1) The significant growth of the parcel and express segment, which makes up a growing share of the postal market.



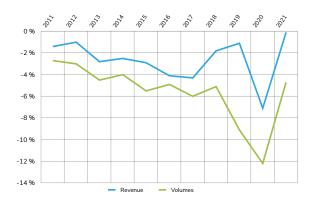
Letter post now makes up less than a third of the postal market. In one year's time the parcel turnover increased by almost 11.2% compared to 34.8% in 2020.



2) The drop in letter post volume (-4.7%) however was counterbalanced by the increase of the rates for letter post services, the revenue of which remained rather stable (-0.1%).



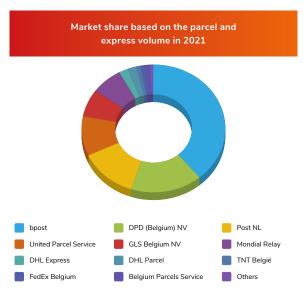
Volumes and revenues from items of correspondence

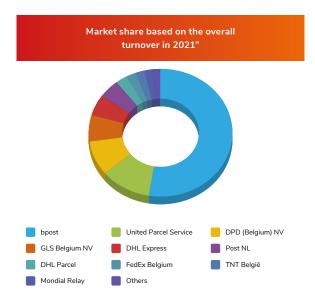




Market players

As shown in the two following graphs, bpost largely retains its dominant position on the letter post market and is the leader on the parcel and express market.





3.2.2. Universal service providers - licences

Any person wishing to provide a letter post service, registered or not, and falling within the scope of the universal service (up to 2 kg), must apply for a licence from the BIPT.

Since SPRL Net Express⁶⁵ was granted a licence in November 2020, there are <u>four</u> universal service providers: Net Express, for the whole territory, SPAN Diffusion in the 19 municipalities of the Brussels-Capital Region, bpost, which is designated to provide the whole of the universal service across the entire

65. SPRL Net Express, which operates under the trade name "TBC-Post".



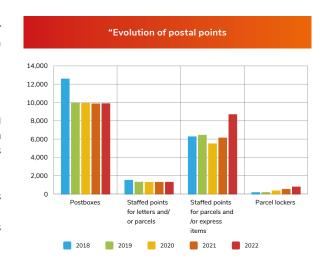
territory, and Glejor BVBA which wants to deliver letter post services (the registered items included) in the 3650 and 3680 postal code areas⁶⁶.

3.2.3. Postal points

Since the end of 2017, the BIPT has been gathering data of all available postal points on the Belgian territory on the website <u>postalpoint.be</u>, subdivided as follows:

- letterbox for sending letter post;
- staffed point for sending and/or receiving letters and parcels;
- staffed point for sending and/or receiving parcels and/or express items;
- parcel lockers for sending and/or receiving.

Postalpoint.be is fed by data coming from the operators and reflects the developments in the postal points network.



Since the bankruptcy of TBC-Post (end of 2019) only the universal service provider, bpost, still makes mailboxes (red boxes) available to users. In recent years, their number has systematically dropped. Between 2018 and 2020 more than 2,000 red letterboxes have disappeared from the streets. However, their number has stabilised in recent years at slightly less than 10,000.

We also notice a drop in the number of staffed points for letters and/or parcels after 2018 because of the disappearing of TBC-Post in 2019. Since then the number of staffed points only belonging to bpost (i.e. the postal service points and post offices) remains rather stable.

The total number of staffed points for parcels and/or express items (including those of bpost, as they can also be used in that context) continues to rise. Recently the neighbourhood points of Homerr and ViaTim are boosting this evolution: for a couple of hours a day private individuals make their homes available as a parcel collecting point. It should be noted that certain staffed points, such as bookshops or petrol stations, but also private individuals (e.g. ViaTim) work for more than one operator. Therefore, these points are sometimes counted several times⁶⁷.

Parcel lockers have emerged in the past ten years. These machines, equipped with a number of secured lockers, are usually installed at busy locations and can mostly be used 24/7 for sending and/or receiving parcels. In Belgium, bpost started to roll out a network of parcel machines in 2014, both for sending and collecting parcels. This network has also become an "open" network, which in principle can be used by other operators, such as GLS. In 2022 we observed a new significant rise in the number of parcel lockers. At the end of 2022 the total number of (bpost and DHL Express) parcel lockers in Belgium was 791 units, i.e. 243 more than a year before and even 414 more than two years before. In the meantime Budbee has also become active on the Belgian parcel locker market, thus boosting the number even more, resulting in no less than 791 sites. In the future boost and Budbee can be expected not to be the only ones to enhance their number of sites. Mondial Relay is also slowly starting to install parcel lockers since it

66. BIPT Council Communication of 10 May 2022 on the list of postal operators holding an individual licence.
67. The fact of the matter is that in almost 3 out of 10 cases, we find that the street name and the number of the building of a staffed location appear several times in the data base.

68. On 19 September 2022 it was announced that Instabox and Budbee were going to merge and continue as Instabee.





has taken over InPost (a locker specialist). The choice of the location where a parcel is delivered in a parcel locker, at home or at work, has been made possible via the postal networks, www.postalpoint.be, or even through independent initiatives, such as BringMe, Facility Lockers, ParcelHome and Mobile Locker.



3.3 Media

On the territory of the bilingual Brussels-Capital Region the BIPT is responsible for the regulation of the network operators and of the radio and television broadcasting companies, barring the operators and broadcasting bodies that broadcast/make exclusively Dutch-speaking or exclusively French-speaking programmes.

The providers of audiovisual media services and video-sharing platform services in the bilingual Brussels-Capital Region have to register with the BIPT for each service they intend to provide.

In 2022 no new service provider was registered. Three audiovisual media service providers have been acknowledged by the BIPT in the bilingual Brussels-Capital Region⁶⁹.



69. Maghreb TV, Canal Maroc 1 and Eleven Sports Network.





A. Financial report and annual accounts of the funds

Article 34, third subparagraph of the Act of 17 January 2003 on the status of the regulator of the Belgian postal and telecommunications sectors stipulates that the annual report should comprise, among other things, a financial report and the annual accounts of the universal service funds for the postal and telecommunications services respectively.

Below you will find the BIPT accounts as well as those of the Office of the Ombudsman for the Postal Sector and the Office of the Ombudsman for Telecommunications. These are independent bodies, created to handle the complaints from customers against the operators from the sectors in question. The role of the BIPT is limited to making available personnel and providing logistical support for purchases, accounting and budget.

Accounting of the BIPT - 2022

REVENUES	EUR	EXPENDITURE	EUR	
		Danaga da sata		
	4.012	Personnel costs	12.027.205	
Repayments	4,012	Payroll	13,837,385	
		Allowances, grants and indemnities	5,023,476	
Services performed for third parties	13,858	Social security contributions and pensions	8,900,915	
		Benefits and employer obligations	783.441	
Licence and monitoring fees - private radio communications	19,459,778	1 '		
		Operational resources	1	
		Maintenance work	628.270	
Public licence fees	F1 474 740	Vehicle maintenance	83.349	
Public licence fees	51,474,749			
	2 2 2 4 2 5 2	Insurance	98,351	
Post	2,964,350	Small technical equipment	149,144	
		Expenditure on information processing	681,614	
Miscellaneous	278,603	Work by third parties	3,308,790	
		Training	126,167	
		Assignments in other countries	115,641	
		Telephone - mail - transport	343,368	
		Rental (buildings and car parks)	1,665,120	
		Taxes	580,665	
		Umbrella organisations	1,386,536	
		Discounts and losses	56,518	
		Investment expenditure		
		Vehicles	47,019	
		Office equipment	65,011	
		IT equipment	716,165	
		Technical equipment	889,353	
		Treasury operations		
		Treasury	38,745,967	
		CF/RT	1,093,099	
TOTAL	74,195,350	TOTAL	79,325,364	



A. Financial report and annual accounts of the funds

Accounting of the Office of the Ombudsman for the Postal Sector - 2022 Accounting of the Office of the Ombudsman for Telecommunications - 2022

REVENUES	EUR EXPENDITURE		EUR
		Personnel costs	
Repayments		Payroll	1,061,048
		Allowances, grants and indemnities	307,635
Services on behalf of third parties (sector contribution)	2,218,846	Social security contributions and pensions	694,501
		Benefits and employer obligations	58,029
		. , , , , , , , , , , , , , , , , , , ,	
		Operational resources	
		Maintenance work	0
		Vehicle maintenance	6,204
		Insurance	5,244
		Expenditure on information processing	49,015
		Work by third parties	28,282
		Training	39
		Assignments in other countries	1,623
		Telephone - mail - transport	9,274
		Rental (buildings and car parks)	0
		Taxes	597
		Umbrella organisations	300
		Contribution to the Office of the Ombudsman for the consumer	76,613
		Investment expenditure	
		Vehicles	0
			5.325
		Office equipment IT equipment	1.150
		Technical equipment	0
		recrimical equipment	Į U
TOTAL	2,218,846	TOTAL	2,304,879

REVENUES	EUR	EXPENDITURE	EUR	
		Personnel costs		
Repayments		Payroll	1,023,779	
		Allowances, grants and indemnities	302,058	
Services on behalf of third parties (sector contribution)	2,178,234	2,178,234 Social security contributions and pensions		
		Benefits and employer obligations	71,052	
		Operational resources		
		Maintenance work	0	
		Vehicle maintenance	8,489	
		Insurance	7,588	
		Expenditure on information processing	31,349	
		Work by third parties	80,554	
		Training	2,261	
		Assignments in other countries	2,166	
		Telephone - mail - transport	13,201	
		Rental (buildings and car parks)	0	
		Taxes	3,727	
		Umbrella organisations	300	
		Contribution to the Office of the Ombudsman for the consumer	131,336	
		Investment expenditure		
		Vehicles	38,521	
		Office equipment	0	
		IT equipment	6,535	
		Technical equipment	0	
	1		1	
TOTAL	2,178,234	TOTAL	2,370,732	

In 2022, no universal service funds were activated.

B. Staff of the BIPT on 31 December 2022

ВІРТ		
Staff members	Full-time equivalents (FTE)	
258	248.4	
Level A		
99	95.4	
Level B		
40	39.5	
Level C		
116	110.5	
Level D		
3 3		

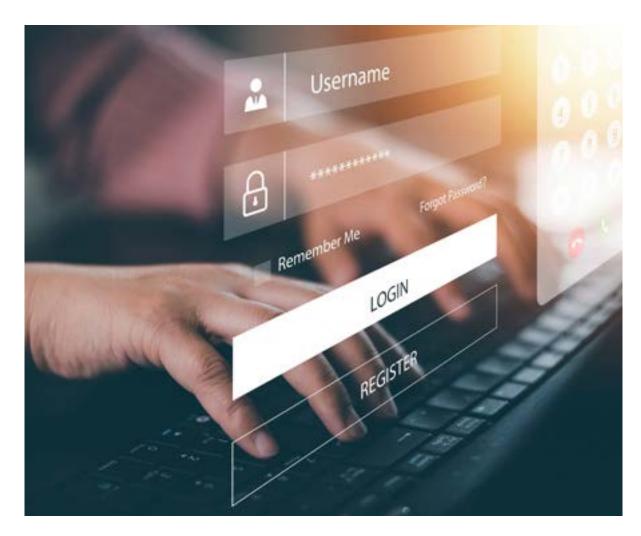
BIPT regulator		
Staff members	Full-time equivalents (FTE)	
225	215.8	
Level A		
92	88.6	
Level B		
33	32.5	
Level C		
98	92.7	
Level D		
2	2	

Office of the Ombudsman for the Postal Sector		
Staff members made available	Full-time equivalents (FTE)	
16	16	
Level A		
3	3	
Level B		
7	7	
Level C		
5	5	
Level D		
1	1	

Office of the Ombudsman for Telecommunications		
Staff members made available	Full-time equivalents (FTE)	
17	16.6	
Level A		
4	3.8	
Level B		
0	0	
Level C		
13	12.8	
Level D		
0	0	



C. Report on infringement procedures



Article 34, third subparagraph, of the Act of 17 January 2003 on the status of the regulator of the Belgian postal and telecommunications sectors requires that the annual report also contains a report on the monitoring referred to in Article 21.

Article 21 of that Act lays down the different aspects of the proceedings that can be initiated by the Council when it suspects a violation of the legislation or regulation, the compliance of which is monitored by the BIPT.

On 24 May 2022 the BIPT imposed an €85,000 fine on operator SEWAN. The BIPT blamed that operator for not having correctly completed the register of premium-rate numbers enabling consumers to identify the service providers using 070X and 090X premium-rate numbers.

On 23 August 2022 the BIPT also imposed a €190,000 fine on Telenet for not having taken adequate security measures as required by Article 107/2 of the Act of 13 June 2005 on electronic communications for one of its sites. In particular, Telenet failed to:

- protect its site against storm Eunice on 18 February 2022;
- secure physical access to this site, as observed during a visit by two staff members of the BIPT on that site on 21 February 2022.



D. Dispute coordination

The BIPT is responsible for the coordination of legal appeals mainly concerning the decisions it has adopted. The BIPT is also regularly asked to follow disputes involving the Belgian State and concerning telecommunications or postal services. Depending on the procedures, exchanges can also take place between the BIPT and other state, federal or European authorities.

The BIPT followed new appeals, all of which were submitted in 2022; on some of them a decision was given in 2022.

Follow-up of the appeals lodged in 2022 on which a decision was given in 2022

 In his ruling of 13 April 2022 the President of the Brussels Dutch-language court of first instance declared the application filed in extreme urgency in February 2022 by Forza Refurbished BV, aiming to prevent the BIPT from impeding or rendering impossible the marketing by the applicant of iPad and iPhone devices bought in the United States and refurbished in Europe, unfounded due to the non-compliance of those devices with the essential requirements and harmonised standards.

However, after having considered the fact that refurbished products can notably contribute to waste reduction, the President asked the BIPT to start negotiations with Forza and to give that company guidelines on how to comply with the regulation, but also, if possible, to elaborate transitional measures that could enable Forza to fully comply with that regulation within a time as short as possible, but still reasonable.

 On 7 December 2022 the Market Court pronounced a judgment rejecting the application for annulment of the BIPT Decision of 24 February 2022 concerning the place and method of execution of work on the Telenet network.

The claimant had submitted a complaint to the BIPT on 1 December 2021 against the work planned by Telenet in order to remedy the disruptions found by customers on its network. In his appeal of 22 April 2022 the claimant maintained that Telenet had not tried to arrive at an agreement before starting the necessary work and that the BIPT decision had not been taken with meticulous care. The Court dismissed the grounds put forward by the claimant.

Follow-up of the other appeals lodged in 2022

 In February 2022, in an appeal against the Belgian State, Telenet Group asked the Council of State to annul Articles 25 to 37 of the Royal Decree of 28 November 2021 on radio access in the 900 MHz, 1800 MHz and 2 GHz frequency bands, as well as Article 24 of the Royal Decree of 28 November 2021 on radio access in the 700 MHz frequency band. Those articles define the terms and conditions regarding frequency assignment to a new entrant.

- 2. On the other hand, in May 2022, Telenet lodged an appeal against the terms and conditions, which it found to be too favourable, regarding frequency assignment to the fourth operator to develop its project. That appeal awaits the decision of the Council of State regarding the appeal against the royal decrees concerning the frequency assignment.
- 3. On 17 July 2022, Sewan submitted an appeal to the Market Court, to annul the BIPT decision of 24 May 2022 on Sewan's non-compliance with Article 116/1, § 1, of the Act of 13 June 2005 on electronic communications and the Ministerial Order of 15 January 2019. That decision imposed an €85,000 fine on Sewan for non-compliance with that art. 116/1 ECA.
- 4. On 23 August 2022 the BIPT intervened voluntarily in a dispute between Eleven Sports Network and the CSA before the Council of State. By way of its appeal Eleven challenged the fine imposed on it by the CSA for not having made a prior notification of its French-language services "Pro League 1, 2 et 3", whereas the BIPT decision of 28 July 2020, which confirmed Eleven's notification was adopted after an exchange of letters with the CSA about the matter of the authority between the two regulatory authorities.



D. Dispute coordination

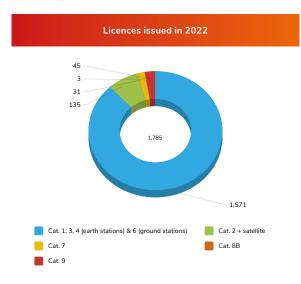
- 5. On 24 October 2022 Telenet lodged an appeal against the BIPT decision imposing a €190,000 fine on it for not having sufficiently secured a site of its network, which Telenet denies.
- 6. On 13 December 2022 several non-profit organisations and private persons lodged an appeal to the court of cassation against the judgment of the Brussels Court of Appeal of 14 April 2021 rejecting as inadmissible due to no legal interest in bringing proceedings the appeals lodged by the non-profit organisation GRAPPE et al. of 11 September 2020 against the granting of temporary user rights in the 3600-3800 MHz frequency band to five mobile operators.



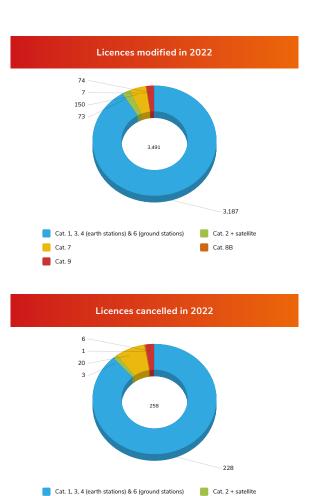
E. Licences, examinations and certificates issued in 2022

Licence granting

In 2022, 1,785 new licences were issued, 3,491 were modified and 258 were cancelled. This amounts to a total of 5,534 files handled in 2022.

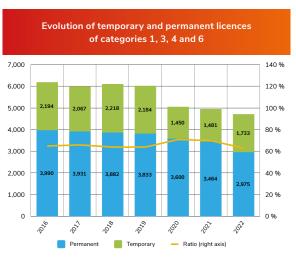


The chart "Licences issued in 2022" gives an overview of the changes made in previously granted licences. The adaptations are diverse, e.g. adding/removing radio stations or frequencies, changes in addresses, changes in the contact person's details, etc.



Licences of the 1^{st} , 3^{rd} , 4^{th} and 6^{th} category can also be represented over time.

The chart below gives an overview of the evolution of the temporary and permanent licences throughout the years.



Cat. 8B

Cat. 7

Cat. 9

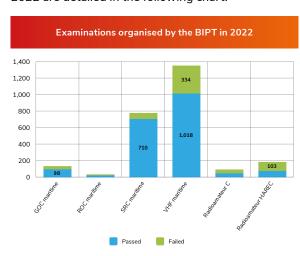
E. Licences, examinations and certificates issued in 2022

The details of the active licences (or having been activated in case of temporary ones) in 2022 are as follows:

	Permanent licences	Temporary licences
Category 1	2,721	2,006
Category 2 + satellite	189	23
Category 3	649	54
Category 4	92	2
Category 6	80	6
Category 7	458	0
Category 8A	8	0
Category 8B	8	2
Category 9A	26	59
Category 9B	4	0
Category 9C	20	6

Examinations to obtain operator certificates to use certain stations

The various examinations organised by the BIPT in 2022 are detailed in the following chart:



The chart below illustrates the distribution according to the type of certificate.



F. Situation of the 2022 Operational Plan

Strategic axis "Competition" - Promoting sustainable competition and investments

11 (11 11 11 11 11 11 11 11 11 11 11 11	
C/1/2022/01 Situation of the electronic communications and television markets	Objective accomplished
C/1/2022/02 Publication of a 2021 postal observatory	Objective accomplished
C/1/2022/03 Report on the monitoring of the Net Neutrality Regulation in Belgium	Objective accomplished
C/1/2022/04 Drafting of a decision on one-time fees for optical fibre	Objective accomplished
C/1/2022/05D rafting of a decision regarding the review of the SLAs and the calculation of the compensation in the reference offers for copper and fibre	Objective accomplished
C/1/2022/06 Development of a cost model for Ethernet transport (fibre and VDSL)	In progress
C/1/2022/07 FTTH joint ventures: verification of the reference offers	Objective accomplished
C/1/2022/08 FTTH joint ventures: point-to-point FTTH cost model	In progress
C/1/2022/09 Preparation of the drafting of a decision on the broadband and broadcasting markets	Objective accomplished
C/1/2022/10 Monitoring of interconnection and preparation of a decision on the analysis of the fixed and mobile call termination markets	In progress
$\mbox{C}/\mbox{I}/\mbox{202}/\mbox{11}$ Monitoring of the relations between mobile operators and towercos regarding access to the antenna sites	Objective accomplished
C/1/2022/12 Study on access to the optical fibre drop cable	Objective accomplished
C/1/2022/13 Analysis about the use of the end-user's equipment on the various network infrastructures (choice of modem/router/CPE)	Objective accomplished

Strategic axis "Competition" - Spurring innovation

C/2/2022/01 Continuation of the creation of a vade mecum on fibre	In progress
C/2/2022/02 Conducting a study on telecommunications and sustainability in Belgium	Objective accomplished
C/2/2022/03 Conducting a study on the facilitation and follow-up of the copper switch-off	Objective accomplished
C/2/2022/04 E-commerce within the Belgian postal market	Objective accomplished

Strategic axis "Users" - Contributing to providing transparent information to consumers and promoting social inclusion

G/1/2022/01 National price comparison of electronic communications services	Objective accomplished
$G/1/2022/02\ Conducting\ an international\ price\ benchmarking\ study\ of\ the\ electronic\ communications\ services\ in\ the\ residential\ market$	Objective accomplished
G 1/2022/03 Qualitative study on broadband and mobile telephony	Objective accomplished
G/1/2022/04 Transparency regarding the quality of mobile networks	Objective accomplished
$\mbox{G/1/2022/05}$ Update of the maps of the Landline Atlas, showing more detailed information	Objective accomplished
G/1/2022/06 Mapping and measuring the Internet quality of socioeconomic drivers	Objective accomplished
G/1/2022/07 Quality barometer of the electronic communications services	Objective accomplished
G/1/2022/08 Survey on the perception of consumers on the functioning of the market	Objective accomplished
G/1/2022/09 Improvement of the postal tariff comparison tool	In progress
$G/1/2022/10\ lmplementation\ of\ Regulation\ 2018/644\ on\ cross-border\ parcel\ delivery\ services$	Objective accomplished
G/1/2022/11 Monitoring of the implementation of roaming	Objective postponed to 2023
G/1/2022/12 Monitoring of the functioning of the online tariff simulator for electronic communications services	Objective accomplished
G/1/2022/13 Monitoring of certain aspects of Easy Switch	In progress (monitoring is finished)
G/1/2022/14 Monitoring of the compliance with the Ministerial Order establishing the register referred to in Article 116/1, \S 1, ECA	Objective accomplished
G/1/2022/15 Monitoring of the observance of the postal regulatory framework	In progress
G/1/2022/16 Monitoring of the universal service for electronic communications services	Objective accomplished
G/1/2022/17 Geographical element of the universal service – adequate internet access	Objective accomplished
G/1/2022/18 Reform of the social tariffs	In progress – project spread over several years
G/1/2022/19 Monitoring of the price of products included in the universal postal service	Objective accomplished
G/1/2022/20 Verification of the calculation of the net cost of the universal service obligations submitted by bpost	Objective accomplished



F. Situation of the 2022 Operational Plan

Strategic axis "Users" -Ensuring a reliable environment

G/2/2022/01 Notification of security incidents	Objective accomplished
G/2/2022/02 Inspection of critical infrastructures	Objective postponed to 2023
$\mbox{G/2/2022/03}$ Operationalisation of the process for subjecting certain members of the operators' staff to security checks	Objective accomplished
G/2/2022/04 Risks and measures assessment & reporting	In progress
G/2/2022/05 Protection against DDoS attacks	In progress (project adapted)
G/2/2022/06 Resistance of telecommunications against a power outage	Objective postponed

Strategic axis "Scarce resources" - Managing scarce resources

S/1/2022/01 Adaptation of the numbering plan to the long-term changes in the market	Objective accomplished
S/1/2022/02 Multiband auction - Auction of the 2G, 3G, 700 MHz, 1400 MHz and 3400-3800 MHz frequency bands	Objective accomplished
S/1/2022/03 Authorisation of the local private networks using 4G or 5G technologies in the 3800-4200 MHz frequency band	In progress
S/1/2022/04 Risks of mobile networks saturation	Objective not accomplished
S/1/2022/05 5G knowledge and learning platform	Objective accomplished
S/1/2022/06 5G test environments and study on 6G	Objective accomplished
S/1/2022/07 Monitoring of the radiation safety of portable radio equipment	In progress
S/1/2022/08 Monitoring of the observance of the RED Directive by Belgian manufacturers	Objective accomplished
S/1/2022/09 Deployment of the fixed and mobile radio monitoring network	In progress
S/1/2022/10 Deployment of the specific port of Antwerp monitoring network	In progress

Strategic axis "Efficient functioning" - Ensuring an accessible functioning

E/1/2022/01 Social media campaign on consumer protection	Fiche en cours de réalisation
$E/1/2022/02\ Participation\ in\ national\ and\ international\ consultation\ bodies\ concerning\ electronic\ communications$	Objective accomplished
E/1/2022/03 Participation in national and international consultation bodies concerning postal services	Objective accomplished

Strategic axis "Efficient functioning" -Being an attractive employer

E/2/2022/01 Internal operational plan	Objective accomplished
---------------------------------------	------------------------





	Decisions
27-01-22	Decision of 25 January 2022 on the composition of the board referred to in the Royal Decree of 5 May 2006 regarding a conciliation procedure before the BIPT for the year 2022
31-01-22	Decision of 25 January 2022 on the allocation of a range of non-geographic numbers for non-interpersonal communications services across the European Union territory
11-02-22	Decision of 11 February 2022 regarding the rules on the activity of the candidates for the multi-band auction
14-02-22	Decision of 8 February 2022 on the recognition of the non-profit association "Verlivané Projects" as a radio-maritime training centre for the 4th category operator's certificate "SRC"
24-02-22	Decision of 21 February 2022 regarding the areas where the reduction in the amount of the fees relating to the user rights for radio-relay links applies
04-03-22	Decision of 08 February 2022 on the technical and operational conditions for the avoidance of harmful interference in the 1427-1517 MHz band
14-03-22	Decision of 8 March 2022 on the data that have to be provided for the geographical studies with regard to the fixed electronic communications networks capable of providing broadband services
14-03-22	Decision of 11 March 2022 on the extension of the 2G and 3G licences
15-03-22	Decision of 24 February 2022 on the location and manner of execution of work on the Telenet network
16-03-22	Decision of 8 March 2022 concerning the granting to Flash Services Belgium SA of user rights for the operation of a public radio communications network
30-03-22	Decision of 29 March 2022 on the granting of exclusive frequency bands for the use of radio relay links in the 70/80 GHz band
01-04-22	Decision of 29 March 2022 on general authorisations
30-05-22	Decision of 24 May 2022 on Sewan's non-compliance with Article 116/1, \S 1, of the Act of 13 June 2005 and the Ministerial Order of 15 January 2019 establishing the register referred to in Article 116/1, \S 1, of the Act of 13 June 2005 on electronic communications
16-06-22	Decision of 14 June 2022 on the technical and operational conditions for the avoidance of harmful interference in the 900 MHz and 1800 MHz frequency bands
01-07-22	Decision on radio interfaces related to short-range devices and WAS/RLAN (Wi-Fi)
20-07-22	Decision of 19 July 2022 on radio interfaces for satellite earth stations
05-08-22	Decision of 02 August 2022 regarding the listing and classification of products and services provided by the universal service provider for the year 2021
22-08-22	Decision of 02 August 2022 on the declaration of conformity of bpost's cost accounting system for the year 2020
24-08-22	Decision of 23 August 2022 on the rights of use in the 3.5 GHz band of Gridmax

24-08-22	Decision of 23 August 2022 on the rights of use in the 3.5 GHz band of Citymesh
26-08-22	Decision of 23 August 2022 on the granting of rights of use in the 700 MHz band to Proximus
26-08-22	Decision of 23 August 2022 on the granting of rights of use in the 700 MHz band to Citymesh Mobile
26-08-22	Decision of 23 August 2022 on the granting of rights of use in the 700 MHz band to Telenet Group
26-08-22	Decision of 23 August 2022 on the granting of rights of use in the 3600 MHz band to Citymesh Mobile
26-08-22	Decision of 23 August 2022 on the granting of rights of use in the 3600 MHz band to Network Research Belgium
26-08-22	Decision of 23 August 2022 on the granting of rights of use in the 3600 MHz band to Proximus
26-08-22	Decision of 23 August 2022 on the granting of rights of use in the 3600 MHz band to Orange Belgium
26-08-22	Decision of 23 August 2022 on the granting of rights of use in the 3600 MHz band to Telenet Group
26-08-22	Decision of 23 August 2022 on the granting of rights of use in the 700 MHz band to Orange Belgium
01-09-22	Decision of 23 August 2022 regarding the lack of adequate security measures taken by Telenet for its site in [confidential]
14-09-22	Decision of 13 September 2022 on the extension of the 2G and 3G licences
27-09-22	Decision of 27 September 2022 regarding the amount of the annual fees for fixed links in the HF band for public radio communication networks
04-10-22	Decision of 20 September 2022 on the analysis of the "one-time fees" and the monthly rent "ISLA Repair" of the Bitstream GPON reference offer of Proximus
20-10-22	Decision of 20 October 2022 on the reorganisation of the 1800 MHz and 2100 MHz bands
03-11-22	Decision of 25 October 2022 regarding the revision of SLAs and compensation calculation of the BRUO, Bitstream xDSL and Bitstream GPON reference offers of Proximus
16-11-22	Decision of 16 November 2022 on the reorganisation of the 900 MHz band
22-11-22	Decision of 16 November 2022 on the granting of rights of use in the 900 MHz, 1800 MHz and 2100 MHz bands to Proximus
22-11-22	Decision of 16 November 2022 on the granting of rights of use in the 900 MHz, 1800 MHz and 2100 MHz bands to Orange
22-11-22	Decision of 16 November 2022 on the granting of rights of use in the 900 MHz, 1800 MHz and 2100 MHz bands to Citymesh Mobile



22-11-22	Decision of 16 November 2022 on the granting of rights of use in the 900 MHz, 1800 MHz and 2100 MHz bands to Telenet Group
22-11-22	Decision of 16 November 2022 on the granting of rights of use in the 1400 MHz band to Orange Belgium
22-11-22	Decision of 16 November 2022 on the granting of rights of use in the 1400 MHz band to Proximus
22-11-22	Decision of 16 November 2022 on the granting of rights of use in the 1400 MHz band to Telenet Group
01-12-22	Decision of 22 November 2022 regarding the analysis of tariff increases for bpost's single-piece rates for the year 2023
20-12-22	Decision of 15 September 2022 on the inadmissibility of the dispute settlement request number 2022-001
23-12-22	Decision of 20 December 2022 on radio interfaces related to intelligent transport systems (ITS)
28-12-22	Decision of 20 December 2022 regarding a possible price squeeze in the context of Proximus's fibre offer

Consultations	
11-01-22	Consultation regarding the draft decision on general authorisations
12-01-22	Pre-consultation regarding the end of the validity of the BRIO and BMRIO reference offers
13-01-22	Consultation regarding the draft Royal Decree amending the Royal Decree of 6 September 2016 on the migration of fixed line services and bundles in the electronic communications sector
18-01-22	Consultation regarding the data to be provided for the geographical studies regarding broadband services
19-01-22	Consultation regarding the draft decision on the granting of exclusive frequency bands for the use of radio relay links in the 70/80 GHz band
19-01-22	Consultation regarding the draft decision on the extension of the 2G and 3G licences (2022)
20-01-22	Consultation regarding the draft proposal for a Royal Decree amending annex 2 of the Royal Decree of 18 December 2009 on private radio communications and user rights for fixed networks and trunk networks and the annex to the Royal Decree of 16 April 1998 on satellite earth stations
01-02-22	Consultation on a draft Royal Decree determining the detailed rules for applying the reimbursement of possible remaining credit within the framework of Article 111/2, § 1, subparagraph 5, of the Act of 13 June 2005 on electronic communications
21-02-22	Consultation concerning the introduction in the postal regulation of a provision regarding the delivery of postal parcels to dwellings equipped with an individual parcel box
25-02-22	Consultation on the draft amendments to the "data retention" bill
10-03-22	Prior consultation on the reference offer of Fiberklaar
10-03-22	Prior consultation on the reference offer of Unifiber
11-03-22	Consultation concerning a draft bill amending article 5 of the law of 26 January 2018 on postal services to provide for a percentage of salaried workers in the parcel delivery sector in Belgium
31-03-22	Draft decision regarding the revision of the "one-time fees" and the monthly rental price "ISLA Repair" of the reference offer Bitstream GPON from Proximus
01-04-22	Consultation on radio interfaces for satellite earth stations
06-04-22	Consultation on the technical and operational conditions for the avoidance of harmful interference in the 900 MHz and 1800 MHz frequency bands
29-04-22	Consultation on the draft decision on radio interfaces related to short-range devices and WAS/RLAN (Wi-Fi)
10-05-22	Consultation regarding the transposition of Directive 2019/882 on the accessibility requirements for products and services
01-06-22	Consultation regarding the amount of the annual fees for fixed links in the HF band for public radio communication networks



29-06-22	Public Consultation on the Cost Model for Ethernet Transport on Proximus' Network
29-06-22	Consultation regarding a draft bill on the use of jammers
04-07-22	Prior consultation: Telenet Group Mobile IP Reference Interconnect Offer 2022
04-07-22	Prior consultation: Orange Belgium Reference Interconnect Offer 2022
04-07-22	Prior consultation: Proximus Mobile Interconnect Offer 2022
13-07-22	Consultation regarding the draft decision on the extension by six months of the 2G and 3G licences
14-07-22	Public inquiry regarding sustainable collection and delivery
27-07-22	Consultation on the draft communication regarding the obligations of the operators providing nomadic services in terms of access to emergency services providing on-site assistance
27-07-22	Consultation regarding the preliminary draft Royal Decree amending the Royal Decree of 2 February 2007 on the emergency services to extend its application to hotlines and services combating violence
18-08-22	Consultation about a draft Royal Decree amending the Royal Decree on numbering regarding access to the emergency services for nomadic services
23-09-22	Consultation on a draft proposal for a Royal Decree amending the Royal Decree of 28 November 2021 on radio access in the 3400-3800 MHz frequency band
23-09-22	Consultation on a draft proposal for a Royal Decree on private broadband radio local area networks
03-10-22	Consultation on a draft decision regarding the identification of the network termination point for broadband services and TV services
06-10-22	Consultation regarding access to the first concentration point on Belgian fixed networks
20-10-22	Consultation on a draft decision on the technical and operational conditions for the avoidance of harmful interference in the 800 MHz frequency band
10-11-22	Consultation on the draft decision of the BIPT Council on radio interfaces related to intelligent transport systems (ITS)
15-11-22	Consultation of 14 November 2022 on Article 2 of the draft Royal Decree regarding the data to be retained by the operators of electronic communications for the authorities, pursuant to articles 126 to 126/3 of the Act of 13 June 2005 on electronic communications, and the statistics on the communication of these data to the authorities
21-11-22	Consultation regarding the draft Royal Decree amending the Royal Decree on the identification of the end-user of mobile public electronic communications services provided by means of a prepaid card
08-12-22	Consultation about the draft decision regarding the analysis of the reference offer for the unbundled fibre local loop of Unifiber
08-12-22	Consultation about the draft decision regarding the analysis of the reference offer for the unbundled fibre local loop of Fiberklaar

15-12-22	Consultation on the draft of the operational plan 2023
27-12-22	Consultation at the request of the Minister of Telecommunications on a draft Royal Decree amending the Royal Decree of 28 November 2021 on radio access in the 3400-3800 MHz frequency band

Communications	
01-02-22	Communication regarding the monitoring of the universal telecommunications service 2021
15-02-22	Results of the benchmarking of the telecommunications service rates in Belgium [Tariffs applied in Q4 2021]
23-02-22	Communication of 21 February 2022 regarding Guidelines for the provision of "unlimited" Internet
03-03-22	Communication of 21 February 2022 on the conformity of Brutélé's cost accounting system for 2020
03-03-22	Communication of 21 February 2022 on the conformity of Telenet's cost accounting system for 2020
03-03-22	Communication of 21 February 2022 on the conformity of VOO's cost accounting system for 2020
11-03-22	Communication on the proposal for a Royal Decree amending annex 2 of the Royal Decree of 18 December 2009 on private radio communications and user rights for fixed networks and trunk networks and the annex to the Royal Decree of 16 April 1998 on satellite earth stations
15-03-22	Communication of 15 March 2022 regarding the temporary use of the short code 1212 by SMS to support humanitarian aid to Ukraine
31-03-22	Communication of 29 March 2022 concerning the opening of the geographical service identity 0601 for the Charleroi region following the shortage of the service identity 071
25-05-22	Communication on the list of postal services providers holding an individual licence (2022)
13-06-22	The situation of the electronic communications and television market (2021)
06-07-22	Communication of 5 July 2022 on the platform SERIMA.be
18-07-22	Communication of 16 July 2022 on the evolution of the broadband and television markets since Q1 2018
12-09-22	Communication of 8 September 2022 on the results of a quantitative survey and a statistical analysis regarding the consumers' perception of the Belgian electronic communications market



12-09-22	Communication of 30 August 2022 on the use of analogue/digital channels to ensure implementation of the VHF Data Exchange System (VDES) in the programming of marine VHF radiotelephones
14-09-22	Communication of 7 September 2022 regarding an inspection of bpost's measuring systems within the context of the management contract for services of general economic interest
08-11-22	Results of the benchmarking of the telecommunications service rates in Belgium [Tariffs applied in Q3 2022]
10-11-22	Communication of 25 October 2022 regarding the assessment of the bpost tariffs considered within the framework of the European regulation on cross-border parcel delivery services
17-11-22	Communication of 17 November 2022 concerning the study regarding data centres and digital content providers in Belgium
23-11-22	Communication of 16 November 2022 on the conformity of Proximus's cost accounting system for 2020
30-11-22	Communication of 29 November 2022 on the study regarding the sustainability of the telecom networks in Belgium
19-12-22	Communication of 19 December 2022 regarding the Belgian postal services observatory for 2021
21-12-22	Communication of 14 December 2022 regarding the comparative study on the price level of telecom products in Belgium and in the neighbouring countries in 2022
22-12-22	Communication of 13 December 2022 on the negotiation of interconnection agreements
23-12-22	Guidelines for programming Maritime VHF radio equipment

	Opinions	
10-01-22	Opinion of 21 December 2021 regarding the bills reviewing the Constitution with a view to adding the right to an open and/or neutral and/or adequate Internet to Article 23, subsection three, of the Constitution	
17-01-22	Opinion of 3 December 2021 on the draft Royal Decree on the central number database	
03-02-22	Opinion of 25 January 2022 on the 2020 improvement plan and the 2021 action plan of bpost following the customer satisfaction survey for the year 2020	
23-02-22	Opinion of 10 February 2022 on the draft Royal Decree on postal services	
06-05-22	Opinion of 21 April 2022 on Draft Resolution No. 2284/001 on the recognition of internet access as a basic need	
19-05-22	Opinion of 9 May 2022 on Draft Resolution No. 2188/001 on the creation of a Belgian advisory committee on data ethics	
31-08-22	Opinion of 14 October 2021 on the draft Royal Decree on the radio communications network operated by ASTRID	
16-09-22	Opinion of 30 August 2022 on the proposal for revising Article 29 of the Constitution with a view to extending the confidentiality of correspondence to all forms of private communication	
04-10-22	Opinion of 10 May 2022 on the draft Royal Decree amending the Royal Decree of 6 September 2016 regarding the migration of fixed line services and bundles in the electronic communications sector	





	Press releases	
14-01-22	The BIPT publishes a call for candidates for the future radio spectrum	
10-02-22	The BIPT publishes new figures on our mobile networks' coverage and quality, including aboard trains	
15-02-22	The BIPT publishes its national price benchmarking study for 2021	
16-02-22	The BIPT and the Centre for Cybersecurity Belgium sound the alarm concerning a fraudulent call plague	
23-02-22	More clarity on unlimited surfing	
22-03-22	Five mobile operators deemed admissible for the radio spectrum auction	
29-03-22	The Gaming Commission and the BIPT sign an agreement to better combat illegal online gambling and betting	
29-03-22	New mobile operator exercises the option for reserved spectrum	
04-05-22	The BIPT publishes a study mapping out the 5G applications abroad	
16-05-22	The BIPT maps out the status of fibre roll-out in our country	
30-05-22	The BIPT imposes a fine of EUR 85,000 on Sewan	
09-06-22	Bundles on the mobile market increase by 16% in 2021	
13-06-22	Record level of investments in the telecoms market	
21-06-22	Radio spectrum auction brings in 1.2 billion euro	
18-07-22	The BIPT notices the positive impact of market regulation	
20-07-22	Radio spectrum auction ultimately yields more than 1.4 billion euro	
12-09-22	The BIPT publishes the results of its annual survey of the consumers' perception of the electronic communications market	
08-11-22	Save up to €240 per year by comparing telecoms tariffs	
17-11-22	The BIPT publishes a study on data centres and digital content providers in Belgium	
30-11-22	The BIPT publishes a study on the sustainability of the telecom networks in Belgium	
01-12-22	16.8% increase of the non-prior stamp in 2023	
01-12-22	The BIPT extends its tariff simulator to microenterprises and the self-employed	
19-12-22	In 2021 peace returned to the parcel and express services sector following a record year marked by the pandemic	
21-12-22	The BIPT publishes its comparative international price study for 2022	
23-12-22	The new BIPT map displays the coverage data of fixed telecommunications operators at address level	



Belgian Institute for Postal Services and Telecommunications

BIPT

Ellipse Building C Boulevard du Roi Albert II, 35 bte 1 1030 Brussels Telephone 02 226 88 88 info@bipt.be





