

THE COORDINATED MANAGEMENT OF CONTAMINATED SOILS IN BRUSSELS

Activity report 2014-2018
Soil sub-division



NOVEMBER 2019

THE COORDINATED MANAGEMENT OF CONTAMINATED SOILS IN BRUSSELS

Rapport technique des activités entre 2014-2018

Sous-division Sols

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1. Introduction

1.1 Vision

As a public authority, Brussels Environment, and more specifically, the Soil sub-division, is tasked with informing and supporting companies and private citizens in order to ensure compliance with legislation on contaminated soils in the Brussels Region. To implement this remit, the 34 officers working within the sub-division update the soil condition inventory, issue soil certificates or exemptions from obligations, put forward technical opinions on soil study reports and monitor field work, award grants, monitor remediation and compliance with new petrol station standards, conduct studies and treatment operations at the expense of Brussels Environment under its public treatment obligations, set up sectoral remediation funds (Bofas, Promaz) and oversee their operation, etc.

At the same time, the sub-division fosters much deeper values, over and above the simple application of soil legislation. In fact, Brussels Environment as a whole sets out to be the driving force behind a strong environmental ambition for the Region while, at the same time, taking up the socioeconomic challenges in the areas that come within the administration's scope of operation.

This remit and these values are inextricably linked and underpin our vision, our operating strategy.

First of all, we make every effort to deliver a service to the population with a focus on quality. We are a public body with a set of public duty obligations, but we are not afraid to use the term “customer-driven”. Quite simply because we want to reach out and guide those who are faced with certain obligations through the maze of formalities. We are all aware here that people find themselves suddenly in a situation they have no control over. We believe that our role is to help and inform them.

In order to keep all these promises, we have a team, a strategy and tools designed in such a way as to guarantee that our work is of a high quality, efficient and reliable.

In doing so, we set clear objectives for ourselves in the short, medium and long term.

Finally, we evaluate our actions by taking stock of our results whilst taking into account the feedback from our clients and partners.

1.2 Remits

The Soil sub-division is currently responsible for implementing the applicable legislation on contaminated soils by way of 3 main thrusts:

- By providing information about contaminated soils: preparation of the soil inventory and its daily update, publication of the soil map, communication to the stakeholders (experts, notaries, private citizens, operators) on the obligations to be met (call center, forum, etc.) and the delivery of soil certificates and exemptions;
- By identifying and treating contaminated soils: inspections of polluting installations (e.g. petrol stations) and the reuse of excavation material/backfill, putting forward technical opinions on soil contamination studies, monitoring and follow-up of risk management and remediation works;
- By financing the treatment of the contaminated soils: awarding grants for soil studies, setting up sectoral funds for the remediation of contaminated soils (Bofas, Promaz, Tersana, etc.), subsidising the treatment of contaminated soils via the ERDF funds (e.g. Greenfields) and public treatment of certain areas (contamination within neighbourhoods or complexes, brownfields that are a priority for the Region, etc.).

These actions are taken with the aim of protecting human health, improving the quality of life and the environment of Brussels' residents, protecting property owners against devaluation caused by soil contamination and rehabilitating contaminated land with a view to reassigning it to serve new economic, residential and recreational activities.

1.3 Organisation chart

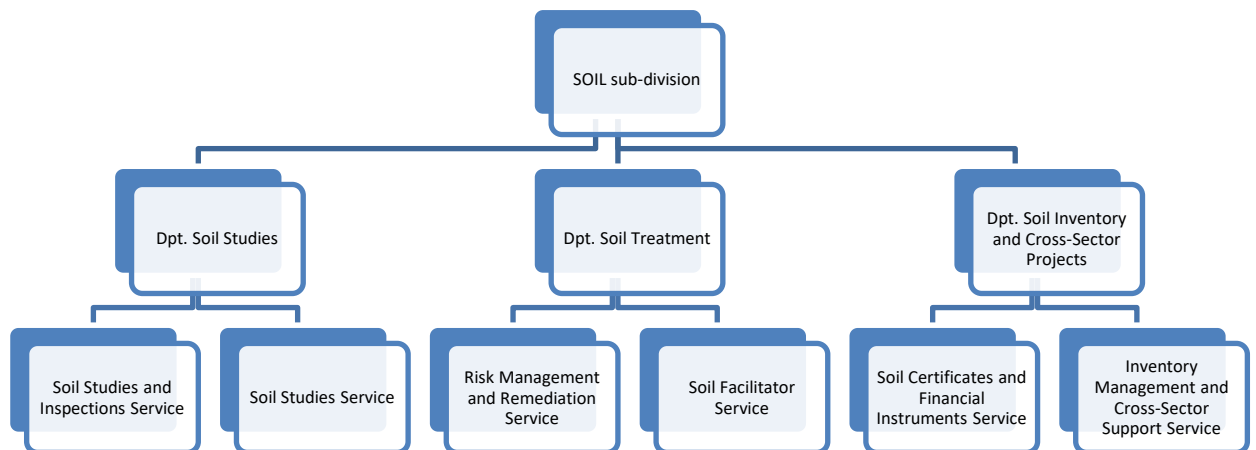


Figure 1: Organisation chart of the sub-division

1.4 Work programme

The sub-division's work programme consists of one strategic objective (SO) and 7 operational objectives (OO):

SO2: Prevent and manage contaminated soils in order to build a sustainable city

SO2.001 : Fine-tune the contaminated soil information, study and treatment policy

SO2.002 : Do everything possible to facilitate the transfer of property, construction projects and the rehabilitation of brownfields

SO2.003 : Develop a centre of expertise and information on legal, technical and practical knowledge of soils

SO2.004 : Promote the sustainable management of contaminated soils

SO2.005 : Exploit synergies within and outside the institute in the management of contaminated soils

SO2.006 : Implement an active and educational communication policy

SO2.007 : Make external actors responsible for their contaminated land through the implementation of professional monitoring of compliance with soil legislation

1.5 Internal management tools

1.5.1 Internal procedures (ISO)

Since September 2017, the Soils sub-division has been busy overhauling and adapting its internal working procedures in the light of the ISO quality system. The goal is to:

- Ensure a high-quality service offering to our users;
- Allow all the officers within the sub-division to work in a cohesive and customer-driven manner by finding a broadest possible range of answers to their questions within the context of these procedures;
- Help officers (new recruits, reassignment, etc.) to undergo training as quickly as possible and be operational in the shortest possible space of time.

1.5.2 Performance Indicators (KPIs)

Since 2015, the Soil sub-division has been monitoring these activities four times a year using Key Performance Indicators. There are currently 24 KPIs. Their purpose is to:

- Communicate with sub-division officers at team meetings and show them the results of their work;
- Measure the operational objectives of the Soil sub-division and take appropriate action in the event of a problem.

List of KPIs in the Soil sub-division:

- ❖ A3KPI001: Number of soil certificates
- ❖ A3KPI002: Percentage of soil certificates issued within the legal deadlines
- ❖ A3KPI003: Percentage of soil certificates requested and issued electronically
- ❖ A3KPI004: Number of technical opinions
- ❖ A3KPI005: Percentage of technical opinions delivered within the legal deadlines
- ❖ A3KPI006: Number of soil studies
- ❖ A3KPI007: Number of additional studies
- ❖ A3KPI008: Percentage of study compliance rate from first submission
- ❖ A3KPI010: Number and surface area of land parcels studied
- ❖ A3KPI011: Number and surface area of land parcels treated
- ❖ A3KPI012: Number and surface area of contaminated land parcels
- ❖ A3KPI013: Sum of land parcels treated
- ❖ A3KPI015: Number of sites updated in the soil condition inventory
- ❖ A3KPI019: Evolution of the total grant budget
- ❖ A3KPI020: Number of grants awarded for the management of contaminated soils
- ❖ A3KPI021: % of the number of grants granted for the management of contaminated soil in relation to the total number of eligible grants
- ❖ A3KPI022: Percentage of field inspections
- ❖ A3KPI023: % of ruling not subject to appeal
- ❖ A3KPI024: Numbers of land parcels in the soil condition inventory
- ❖ A3KPI025: Revenues from soil policy
- ❖ A3KPI026: Studied and treated land parcels as part of public treatment
- ❖ A3KPI027: Central procurement agency
- ❖ A3KPI028: Evolution of category 0 and 0 overlapping
- ❖ A3KPI029: Paperless documents

The figures for some of these KPIs are presented in point 3.

1.6 Start-up dynamic

Our vision is therefore mainly customer-centric through a continuous evaluation of our procedures, both internally and with our external partners. As such, it was important for us to evaluate our tools and to upgrade them in light of the feedback received from the various stakeholders (partners, internal and external customers, etc.).

1.6.1 Satisfaction surveys

In 2014, we launched a major satisfaction survey among a very broad spectrum of people who are involved, in one way or another, with soil legislation in the Brussels-Capital Region.

The purpose of this satisfaction survey was to open the debate on the 4 cornerstones of the implementation of the legislation on contaminated soils:

- **The legislation** itself: Ordinance, implementing decrees, etc.
- **Tools and instruments** (internal and external), i.e. electronic forms for the introduction of soil studies, requests for soil certificates and exemptions, forms available on IRISBOX, internal IBGE databases, mapping of the soil condition inventory, the BRUSOIL platform, the website, good practice codes, grants, etc.
- **Internal management procedures, specific to BE:** case management, checklists, standard letters, training of officers, etc.
- **Relations with our partners** (internal and external): accessibility & availability, communication, organisation, etc.

We therefore contacted the business community (BECI, UPSI, Impulse (HUB)), public operators (Citydev, Port of Brussels, Beliris, STIB) and the actors in charge of implementing the legislation (municipalities, approved experts, registered contractors, notaries, etc.). In total, 25 partners, representing about 500 people, were involved in these surveys. In the interests of objectivity, Brussels Environment was keen to have the satisfaction surveys organised by the industry federations/associations themselves among their members, without the involvement of representatives of the IBGE.

Each party was therefore given the opportunity to suggest avenues for improvement or to flag up problems or shortcomings of the 2009 Soil Ordinance.

Following these surveys, we summarised all comments (approximately 300), both positive and negative, put forward by the various target audiences. This was followed by the definition of three main areas open to improvement, with the aim of improving the legislation in force at the time:

- Administrative simplification;
- Acceleration of procedures;
- Improvements to the various forms of financial support available.

By focusing on these three main areas open to improvement, we drafted an amendment to the 2009 Soil Ordinance. This amendment was published in the

Belgian Official Gazette on 23 June 2017 and now better reflects the reality on the ground.

1.6.2 Administrative burden survey

In parallel with the above efforts, also in 2014, the Ministry of the Brussels-Capital Region (MRBC), more specifically the Administrative Simplification and E-Government Unit (SAEG Unit), measured the administrative burden in the areas of environmental health and spatial planning. The aim was to observe how administrative burdens have evolved over time, identify possible obstacles and to put forward suggestions to improve matters.

The SAEG unit was assisted by auditing and consultancy firm KPMG in measuring the administrative costs and working up suggestions for improvement.

The subsequent report shows that the administrative burden of the Soil sub-division diminished by 25% over the period 2007-2012. This administrative burden is based on the amount of time spent on the obligations imposed by the Ordinance, as well as on the cost of the associated documents (i.e. cost of duty stamps, registered mail, etc.) whilst taking into account the target group and the frequency of the obligations.

This decrease is the result of a major review of our sub-division in order to lighten the administrative burden on citizens and businesses. This good result is down to the digitisation and acceleration of all our procedures.

In 2018, we were contacted by the Brussels agency for administrative simplification (easy.brussels) to repeat this study, this time with Deloitte accountancy firm to analyse the 2012-2018 period. This survey will enable us to continue to implement new tools in order to respond as effectively as possible to Brussels' citizens and businesses. This study shows that the administrative costs fell by 24.5% over the 2012-2018 time frame and therefore by 49.5% between 2007 and 2018. This fall is due to the fact that the Soils sub-division has unrelentingly continued to invest constantly in adapting legislation and improving, automating and digitising procedures to make things easier for users of our services.

2. Implementation tools rolled out between 2014 and 2018

Between 2014 and 2018, the Soil sub-division was equipped with a whole series of tools designed to facilitate its remit. These different tools will be described in detail in the following points.

2.1 Legal tools

2.1.1 Soil Ordinance

The Soil Ordinance is the statutory instrument aimed at preventing the occurrence of soil contamination, identifying potential sources of contamination, organising soil studies to establish the existence of contamination and determining the methods for cleaning up or managing contaminated soil in order to eliminate, control, contain or reduce soil contamination.

Between 2015 and 2016, all the actors that come under the application of the Soil Ordinance were consulted by way of a major satisfaction survey in order to gauge their wishes. Through this survey, some partners highlighted the administrative burdens and the financial impact of the 2009 "contaminated soil" legislation on property transactions and the implementation of economic projects. In the wake of these findings, the Soil Ordinance was amended in 2017, the main objective being to simplify and accelerate study and processing procedures. But also with the aim of improving the various forms of financial support open to citizens and companies in Brussels.

2.1.2 Soil decrees

In addition to the Soil Ordinance, a series of decrees have also been updated over the past four years.

a. High-risk activities

Decree of 16/07/2015, the list of high-risk activities likely to cause soil contamination was readjusted to cover only those activities for which the potential for soil contamination is sufficiently high. This adjustment was made on the basis of an in-depth analysis of the industrial processes and the experience of Brussels Environment acquired since the first Soil Ordinance back in 2004. Some sections not represented in Brussels and sections or sub-sections for which the inherent risk of soil contamination is very low have been withdrawn.

The decree of 01/12/2016 is a consolidated version of the decree that establishes the list of high-risk activities. It compiles all the latest changes.

b. Grants

Since 2007, Brussels Environment has granted, subject to certain requirements, grants for the performance of soil studies and the treatment of orphan contaminations.

A new decree came into force on 20/03/2014. The latter was more in keeping with the 2009 Ordinance and allowed decontamination work and associated reports to be eligible for grants.

The recent decree of 12/07/2018 increased the ceilings and percentages of reimbursement of grants in order to comply with the new 2017 Soil Ordinance.

c. Standards

The Soil Ordinance provides for two types of fixed standards: intervention standards and remediation standards. What's more, the standards vary according to the three sensitivity classes that are set for each of the cadastral parcels on the basis of the Regional Land Use Plan (PRAS).

The decree of 29/03/2018 reviews the sensitivity class of certain types of cadastral parcels such as public parks, which are now classified as Habitat Areas and no longer as Special Areas. In addition, parcels not classified under the PRAS must now be classified on the basis of the sensitivity class of the adjacent parcels.

d. Soil certificate

The purpose of this decree is to lay down the formalities for requesting, issuing and paying for soil certificates. The decree also establishes the standard content of soil certificates.

The decree of 16 February 2017 introduces variable prices for certificates depending on the method used to submit the application (electronic or paper). In addition, the new decree also introduces the possibility of entering an urgent request in return for an additional charge.

e. Authorisation requirements of soil contamination experts and the registration of soil remediation contractors

This decree was adopted to determine the authorisation requirements of soil contamination experts and the registration of soil remediation contractors. The decree was last amended on 07/09/2016 to establish the training obligation for soil contamination experts and to install a commission to supervise the services of soil contamination experts and soil remediation contractors.

f. Family home title deeds excluded from the definition of alienation of a real right

Since 31/07/2015, the new decree on family acts has been in force. This decree lists a number of property transfer deeds that are now excluded from the definition of "alienation of a real right". What this actually means in practice is that no recognition of the condition of the soil is

necessary for these title deeds when the deed in question concerns a property that is registered in category 0 (or overlapping 0) of the soil condition inventory.

g. Standard content of reports submitted to Brussels Environment

The decrees of 29/03/2018 provide a precise framework for soil contamination experts to carry out their studies in order to harmonise the standard structure of the reports between all soil experts. They set the standard content for soil condition surveys, detailed studies, remediation and risk management projects. Secondly, the second decree also specifies the procedures for declaring and giving notification of treatments that are limited in time, which make it possible to check compliance with the conditions of the Ordinance and the good practice codes for carrying out these specific treatment operations.

2.2 Technical tools

2.2.1 Good practice codes

The legislation concerning the management and remediation of contaminated soils provides in the identification and treatment procedures that certain acts must be carried out in accordance with the good practice codes in force in the Brussels-Capital Region, or failing that, in accordance with the good practice codes in force in the Flemish or Walloon Region. The Soil sub-division has been working on a series of good practice codes that aim to present as practically as possible how drillers, samplers, experts and remediation agents should work to standardise the quality of their work and better serve their clients.

To date, the following good practice codes have been drafted:

- Drilling, sampling and analysis
- Risk study
- Treatment works
- Use of backfill earth and ballast

2.2.2 Internal analysis grids

Since the first Soil Ordinance in 2004, the Soil sub-division has been checking the compliance of studies and soil contamination treatment works in Brussels. In practice, this means that the reports prepared by the soil experts are analysed in the same way to ensure that they comply with soil legislation.

As early as 2004, it quickly became clear that it was necessary to set up a harmonised analysis method between the various technical managers at Brussels Environment. To this end, internal analysis grids have gradually been drawn up. These are designed to standardise and structure the reading of reports and the interpretation of regulations by technical managers.

Over the past 4 years, the analysis grids of the reports have been improved and adapted, namely by taking into account the 2017 Soil Ordinance and the latest decrees. To date, there are about ten of them and concern for example: the recognition of the soil condition, the detailed study, the remediation or risk management project, the risk study, the inspection of drilling work or the treatment of contaminated soils, etc.

2.3 IT tools

2.3.1 The soil database

Since 2009, the Soil sub-division has developed an internal database to record all data concerning soil management in Brussels. This database is composed of 3 parts: 1/ management of soil certificates and exemptions from obligations, 2/ management of studies and treatment works and 3/ soil condition inventory, which in turn is linked to the soil condition map.

All data and information from soil studies that are entered into the Brusoil platform by the experts (see point 2.3.1) are automatically integrated into the soil database after being validated by Brussels Environment. Consequently, the database makes it much easier for several technical managers to follow up a soil file because it allows them to record and share their remarks, comments and decisions. Finally, the official letters containing the decisions are generated directly via the database. The signing and sending of these letters is then managed via Alfresco (see point 3).

2.3.2 The Brusoil web platform

The “Brusoil” web platform is a tool specific to the Soil sub-division that allows direct and simplified interaction with the users of the soil legislation, such as soil contamination experts, notaries, but also companies and citizens. It is via Brusoil that soil experts may submit their study and treatment reports and notaries may request soil certificates.

This tool is not only a step forward in the modernisation of our organisation but it, above all, goes a long way towards reaching our administrative simplification goals. Indeed, this simplification improves and streamlines the speed of execution and therefore the quality of the service provided to the citizen.

FR NL

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Figure 2: Visual of the Brusoil platform

2.3.3 The Alfresco mail signing and sending software

Alfresco is an internal software program within Brussels Environment that is used by the Soil sub-division to write, sign and send letters to applicants. This IT tool greatly speeds up work procedures and eliminates the use of signatories. As a result, the Alfresco tool contributes significantly to creating a paperless environment within our sub-division.

2.3.4 The Soilnet web platform

SoilNet is an internal web platform set up following the implementation of a quality system within the Soil sub-division. This platform makes it possible to validate, record and classify all work procedures. It also serves as a storage

place for other technical documents such as *cloud* documents in line with our goal of creating a paperless workplace and increasing the accessibility and exchange of our data.

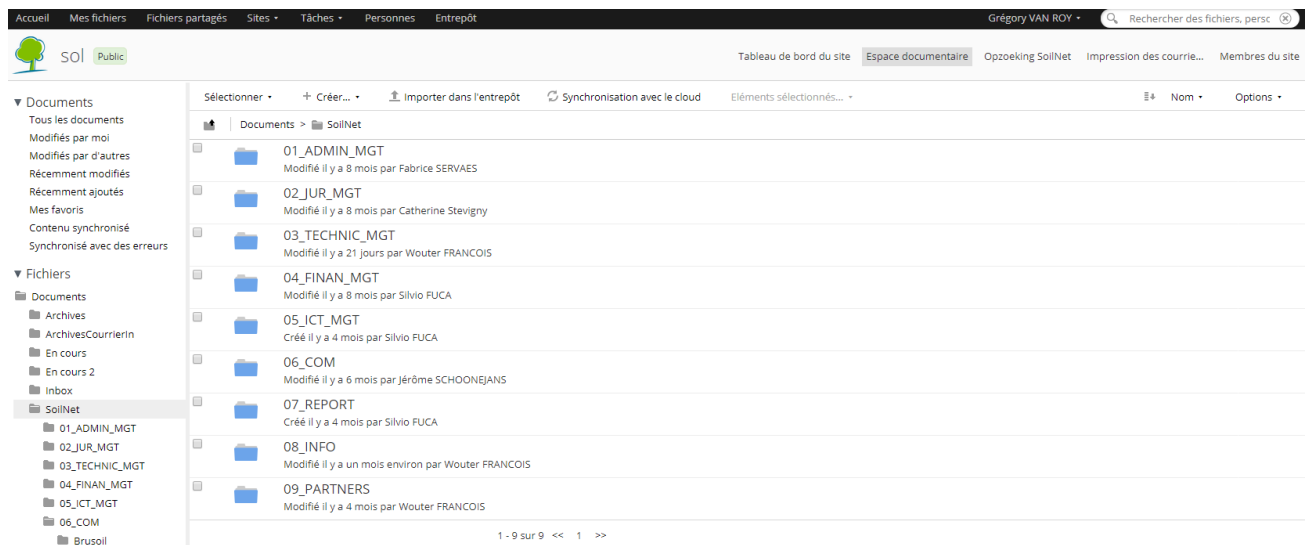


Figure 3: Visual of the Soilnet platform

2.3.5 Soil Inventory

Since 2004, the Soil Ordinance has required Brussels Environment to draw up and update a soil inventory. The purpose of this project is to list all the cadastral parcels in the Brussels Region and to identify whether they are subject to soil contamination or whether contamination is suspected. To accomplish this task, it was necessary to reference all high-risk activities for soils contained in provincial archives and environmental permits. This gargantuan undertaking ended in 2015. However, the soil condition inventory is constantly updated on the basis of new environmental permits, chance discoveries of contamination or environmental accidents.

The soil inventory is an essential tool for soil management in the Brussels-Capital Region. It also provides relevant information to contractors wishing to carry out soil excavations on construction sites or to notaries who must manage a sale of a property in order to avoid blockages.

2.3.6 The Soil Map

This inventory is recorded in an online map (<http://www.bruxellesenvironnement.be/cartesol>), accessible to the public. It includes all the validated cadastral parcels and those for which Brussels Environment has verified information related to soil quality. This soil condition map is updated every 24 hours based on information known to Brussels Environment.

2.4 Financing tools

Several financial instruments have been developed to help and accelerate the transition of the Brussels-Capital Region to a more sustainable city.

2.4.1 Grants

Since 2007, the Brussels-Capital Region has been awarding grants to financially assist private citizens and SMEs in their effort to meet their legal soil contamination obligations. Since the “grants” decree of 2014, all soil studies are eligible for grants as well as contamination treatment works insofar as they concern orphan contamination. Recently, in July 2018, a new decree significantly increased the percentages of amounts taken into account and the subsidy limits. The studies and works concerned by the grants are also included (see point 2.1.2b).

The grant figures are presented in the section on the balance sheet (see point 3.3).

2.4.2 Public treatment

Since 2004, date of the first Soil Ordinance, protecting and treating the soils of the Brussels-Capital Region has become a legal obligation. Despite all the benefits this has brought for the environment and the quality of life of the inhabitants of Brussels, some urban regeneration projects and sales of private plots have been slowed down or even blocked because contamination is sometimes very widespread and therefore very costly to treat.

To break the deadlock in these complex situations, the government of the Brussels-Capital Region has decided to shore up the financial assistance system for the study and treatment of soil contamination by creating the public treatment mechanism. This public measure has been rolled out for a number of reasons: to increase aid for orphan soil contamination, accelerate the treatment of contamination, facilitate the completion of property transactions, promote the conversion of brownfield sites, unblock complex situations where contamination covers multiple parcels and support the government's regional policy by promoting certain socioeconomic projects. For owners and public operators, the advantages of public treatment are undeniable, since Brussels Environment bears the full cost of studies and treatment of orphan soil contamination. From a financial point of view, the system is similar to that of a mutual insurance company because the amount of the soil certificates goes into a fund which is then used to finance soil remediation. For 2019, the budget devoted to public treatment is 165,000 euros.

In 2018, the Brussels government decided to test the public treatment mechanism by choosing four pilot sites: 3 brownfield sites with contamination inherited from the region's industrial past (West Station, the former Schaerbeek Formation station and Biestebroeck quay) and a neighbourhood with contamination extending over a dozen privately owned parcels (between rue de Liverpool and rue du Compas). Preliminary studies (reconnaissance, detailed and risk assessment) were carried out in 2018. The treatment work will be carried out in 2019. An evaluation of the project will then be

presented to the Brussels Government in order to ensure the sustainability of public treatment in the future.

2.4.3 Sectoral funds

a. BOFAS

The purpose of the Bofas Remediation Fund is to clean up a contamination liability in the soil of all petrol stations intended for sale to the public in Belgium. The fund was created in the wake of an interregional and federal cooperation agreement in 2004. It is financed by a contribution levied on petrol and diesel, which is in fact passed onto the profit margin of the oil sector and to the price at the pump.

Finally, until 2018, in the Brussels Region, some seventy closed petrol stations were decontaminated by the non-profit organisation Bofas. About twenty treatments are still in progress. Although the fund should have ceased operations in 2019, it is expected that it will be extended for a few more years in order to be able to treat a number of site applications that are either still pending or that were submitted after the deadline.

b. PROMAZ

The Promaz fund is also the result of an interregional and federal cooperation agreement. Its purpose is to clean up the soil contamination liabilities associated with the spillage of heating oil tanks. Its source of funding comes from the surplus budget of the Bofas Fund. The Promaz fund should start its mission in 2020, once the cooperation agreement has entered into force.

c. Garages - Body shops

In order to broaden the range of financial support for the remediation of the region's soil contamination liabilities, the Soil sub-division has explored the possibility of setting up sectoral funds for other contaminating activities, namely garages and body shops. The common denominator among these activities, which have always played a major role in Brussels' industrial landscape, is the massive use of substances that are highly contaminating for the soil and groundwater, such as petrol, fuel oil or chlorinated solvents.

As a reminder, the majority of current financial aid only concerns orphan contamination. However, these new aids would make it possible to treat orphan and mixed contamination, i.e. contamination caused by current operators.

At the beginning of 2017, Brussels Environment commissioned a feasibility study from a consortium of consultancy firms. The study consisted in assessing the financial viability of a sectoral aid fund whose objective would be to clean up soil and groundwater contamination caused by the activities of the garage/body shops and dry-cleaning sectors. Then, in 2018, Brussels Environment met with representatives of the sectoral funds

supported by the Flemish Region, namely: Tersana, which targets car garages, body shops and tractors, and Vlabotex, which covers dry cleaners, to gain a better understanding of their expectations and operation.

2.5 Communication tools

2.5.1 Brochures and guides

The Soil sub-division has published a series of bilingual pamphlets and brochures. They are a source of information, assistance and support for private citizens and SMEs facing contaminated soil obligations. Here is the list of brochures and guides that have been published so far:

- Studies and treatment of contaminated soils: the Brussels Environment grants
- High-risk activities: preventing soil contamination
- The soil certificate. Practical guide
- Call on the services of the Brussels Environment soil facilitator
- Managing contaminated soils. The soil commission
- Make-up and treatment of the soil. One project, many advantages...
- Give a second life to contaminated soil! Practical guide.

2.5.2 Clips

The management of contaminated soils is one of Brussels Environment's remits. But it is a remit that is not always well understood by the general public when they have to face up to their obligations. The most common questions are listed below. So why do we need to decontaminate? If my land is contaminated - what do I need to do? Am I eligible for grants and financial aid? What has been done, what remains to be done and, above all, what is the point?



The Soil sub-division has tried to answer all these questions by producing 4 video clips that are both educational and entertaining. Thanks to these videos, legislation on contaminated soils becomes more understandable, procedures less mysterious and the benefits for residents and businesses more tangible. They are available in three languages (French, Dutch, English) on our website (<https://environnement.brussels/thematiques/sols/le-sol-en-bref-et-en-video/des-videos-ludiques-pour-comprendre-la-politique-de>).

2.5.3 Website:

In a further effort to improve communication and transparency, in 2016, the website of the Soil sub-division underwent a far-reaching facelift. Indeed, the old version contained a lot of information expressed in very technical terms that did not allow private citizens to easily find their way to the answers they were looking for. We therefore decided to introduce a structure that is inspired by FAQs (frequently asked questions) in order to answer requests directly via our web pages.

The main topics are therefore listed in the basic visual. Then, each issue is handled in a detailed way through standard questions that could be worrying someone subject to soil contamination obligations.

The aim was also to focus on the most frequent search topics. Specific tabs for the soil condition map, facilitator, certificates and grants have been created based on these findings. This new structure attracts more and more visitors to our web pages every year (Figure 4).

Since this overhaul, the web pages have also been updated more often and a reference person has been appointed to ensure proactive follow-up of the information posted online.

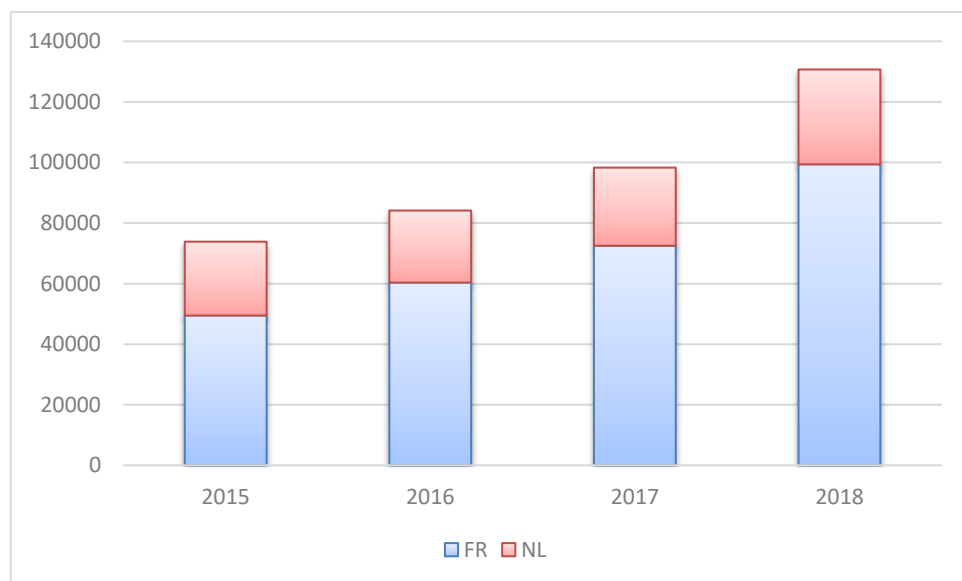


Figure 4: Traffic to the Soil web pages

2.5.4 Symposia

Between 2014 and 2018, the Soil sub-division organised or was involved in the organisation of several national or international symposia, including:

- 26/05/15 - “Ten years of soil management in Brussels: assessment and prospects”

The aim was to take stock of ten years of contaminated soil management in Brussels and to outline its future prospects. With this symposium, Brussels Environment officially signed up to the global efforts to sustainably manage the soil to preserve health, the ecosystem but also food security and socio-economic development in the Brussels-Capital Region.



- 04/12/2015 - “International Year of Soils”
For this event, we directly collaborated with the European Commission to broker a meeting between the different stakeholders beyond our own borders. The aim being to broaden and share our knowledge of contaminated soils with the foreign countries present on this day.



- 28/06/2017 - “The new Soil Ordinance”
This symposium set out to present the new Soil Ordinance to all the actors involved in the management of contaminated soils in Brussels (notaries, experts, real estate agents, contractors, etc.) and who had participated in the 2014-2016 satisfaction surveys. The various speakers gave an overview of the changes made to the Soil Ordinance and outlined the prospects for the future.



- 12 and 13/11/18 - “Intersoil 2018”
The conference focused on soil decontamination projects and covered topics such as: new regulations, the responsibilities of each actor in the field and innovations in the diagnosis and decontamination of soil and groundwater.

2.5.5 Training courses

Over the last four years, the Soil sub-division has organised 14 study days for soil experts, municipalities, notaries and real estate agents. These training days attract about a hundred attendees each time and cover topics as varied as: changes in legislation, updating the Brusoil platform, presentation of new good practice codes, management of excavated land in the Brussels Region, etc.

2.5.6 Regional and international meetings and collaborations

For many years, the Soil sub-division has been collaborating and exchanging information with foreign regions and countries.

First of all, as regards Belgian-Belgian cooperation, the Soil sub-division has been collaborating and exchanging with the Flemish and Walloon regions for 15 years on the management of contaminated soils. This cooperation consists of exchanges of good practices and technical or legal texts. In this context, several technical groups have been set up to work on topics such as the management of excavated land, standards, risk studies, financing, sectoral funds, etc. These exchanges have led to an improvement in legislation and technical procedures in the 3 regions as well as the establishment of several sectoral funds to clean up the contamination of greatest concern for the 3 regions (petrol stations, oil tanks).

Internationally, the Soil sub-division has collaborated and is still collaborating with several countries (France, Russia, Poland, Sweden, Denmark, Morocco, Algeria, etc.) with a particular mention for Canada (province of Quebec). Indeed, a Quebec delegation has been visiting us regularly since 2005 and we have returned the courtesy in order to share our experiences with contaminated soils since 2005. These meetings spawned the Brussels Greenfields project in 2010, since it is largely inspired by a similar project launched in Quebec at the time (Revisols-Climasol). These regular meetings and this close collaboration led to a cooperation agreement in 2009, which was renewed in December 2017 for a period of 2 years.

But the Soil sub-division is also represented in the *Common Forum on Contaminated Land*. This group brings together European states and environmental agencies to develop global strategies for the management of contaminated soils and groundwater. Several meetings have been organised in recent years, the most recent one even took place in Belgium in 2018, in Namur, where Brussels Environment presented the latest developments in the field of financial instruments.

We have also had visits from other foreign delegations such as Sweden in 2015 and Algeria in 2017.

2.5.7 Synergy with other actors in the sector

One of the objectives of our sub-division is to increase the number of partnerships with other entities, both public and private. This allows each

party to glean the expectations of the other and to build a more pragmatic common future. In recent years, Brussels Environment has therefore churned out a number of conventions and collaboration agreements with other actors in our sector of activity.

a. SLRB

In 2016, Brussels Environment signed an agreement with the *Société du Logement de la Région de Bruxelles Capitale* (the Housing Association of the Brussels-Capital Region). This convention was an opportunity to gain an insight into the realities and ambitions on both sides. It should make it possible to facilitate exchanges, to hatch common projects and to boost the sharing of knowledge.

The text focuses on 4 priority areas: training, information, advice and support.

This convention is not specific to the Soil sub-division, but one article is dedicated to our field of expertise. It refers in particular to the Central Procurement Agency of which SLRB has been a member since its inception. It also states that the two parties will work closely together and facilitate each other's work on soil contamination cases.

b. STIB

STIB is a regional player that is present on many sites for the installation of tram or metro lines. In this context, it is confronted on a daily basis with obligations regarding the management of contaminated soils. The agreement signed with STIB aims to facilitate the implementation of projects through better knowledge sharing and a good flow of information between the two entities, for example. To this end, single points of contact have been designated in both entities and follow-up meetings are held annually.

c. Citydev.brussels

The *Société de Développement pour la Région Bruxelles-Capitale* (Development Company for the Brussels-Capital Region) is also an important partner for Brussels Environment and more specifically for the Soil sub-division. A framework agreement was therefore signed in 2016 enshrining the common terms concluded in relation to the major challenges facing the region.

In concrete terms, the exchange of knowledge and expertise between the two parties is facilitated through a more realistic coordination of the actions carried out by Citydev and Brussels Environment.

Another highlight was the special agreement concluded for the public treatment project undertaken by the Soil sub-division. Citydev is a fully-fledged player in this project since it covers the treatment part of the land concerned.

d. Soil experts and remediation companies

When the new Soil Ordinance was presented on 28 June 2017, agreements were signed between Brussels Environment and the federations of soil contamination experts and soil remediation contractors. The purpose of these agreements is to specify the expectations and obligations of each of the parties in order to streamline the administrative and technical management of files and simplify the task for those subject to the obligation, whether private citizens or companies. Among the obligations of experts and remediation contractors are the training of their employees, the preparation of high-quality study reports,... Brussels Environment must, for its part, offer high-quality training, set up tools to facilitate the submission of documents and the delivery of opinions, etc.



2.6 Customer support

2.6.1 Call center

Access to detailed information on the soil condition inventory is provided by requesting a soil certificate. The soil certificate is a legal document, mandatory and essential to sell land in Brussels or to transfer a high-risk activity to another operator.

In order to respond most effectively to these requests, the Soil sub-division has set up a call center which is accessible to notaries and all persons who have submitted an application for certification. The role of the call center is to inform applicants about the procedure for requesting a soil certificate, but also about the progress of studies and works, as well as about grants and financial aid.

It is worth noting that, as at November 2018, over 300,000 soil certificates have been issued since 2004.



2.6.2 Soil Facilitator

The 2014-2016 satisfaction surveys (see point 2.1.1) revealed that many requests were for better communication with users and better support to help those concerned to meet their obligations. This observation prompted the creation of the *soil facilitator* function.

The *soil facilitator's* tasks are to raise awareness among stakeholders of the problem of soil contamination in general and to explain the contaminated soil management policy in the Brussels-Capital Region. It is also responsible for promoting the services and tools available to private citizens and companies.

The facilitator is a first-line contact person who answers general questions and refers their interlocutor, if necessary, to a technical expert who can then offer individual support on more technical issues.



2.6.3 Central procurement agency

Faced with the difficulties encountered by some institutions in drawing up their specifications when faced with the obligation to carry out a soil survey in accordance with the Soil Ordinance, Brussels Environment has set up a central procurement agency that can be used by all public institutions. In 2017, all approved consulting firms in the Brussels-Capital Region were put out to tender to obtain the award of this public contract. Then, when the Central Procurement Agency saw the light of day, the region's territory was shared between the four expert offices that won the contract.

At the moment, about twenty public bodies are taking advantage of the agency's services. Members include municipal administrations, regional public services, a university, and public institutions in Brussels. In its first year, the four consulting firms working for the central procurement agency carried out dozens of soil studies. This in turn translates as dozens of specifications that the members did not have to draft. The total amount of studies related to the agency exceeds the 500,000 euros mark. In short, this agency saves public organisations time and money.

3. Assessment and results

During these four years, the Soil sub-division has achieved many of the objectives it had set for itself. The main quantified results of these objectives are presented in the following paragraphs with, for example: the issuance of soil certificates, the declaration of compliance of studies and works, the awarding of grants and the management of the soil condition inventory, the number and surface area of treated parcels, etc.

3.1 Soil certificates

Via its call center, the Soil sub-division is in permanent contact with private citizens, companies and the many notaries as part of the process of issuing soil certificates. These certificates are essential when selling land or transferring a company and the number of requests is constantly increasing. Between 2015 and 2018, 112,896 certificates were issued, of which 99.8% on average within the legal deadlines and 98.2% on average via electronic means (Figure 5). This efficiency allows Brussels sellers not to be hindered by legislation and soil-related obligations, while guaranteeing legal security for real estate transactions.

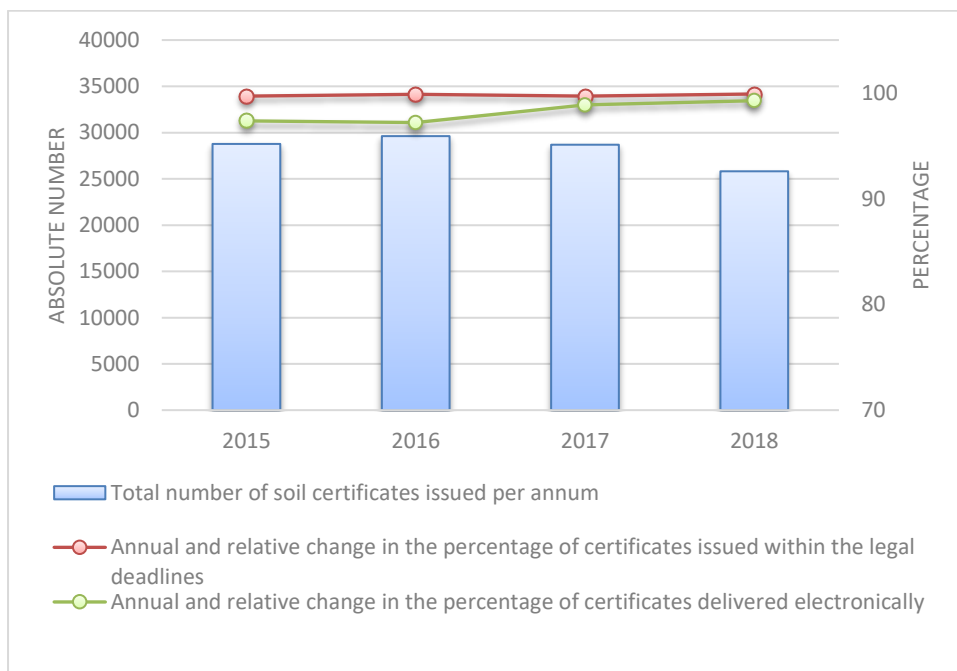


Figure 5: Soil certificates

3.2 Study and treatment

Between 2015 and 2018, 10,525 studies and additional studies were processed and the subject of technical opinions.

During this period, there was a slight decrease in the number of studies and official additional studies (Figure 6). Several factors can explain this phenomenon, first of all the economic situation, which strongly influences the dynamism of the real

estate market. Secondly, the significant administrative simplification brought about by the 2017 Soil Ordinance has led to a decrease in the number of studies carried out per year. Thus, for example, it is no longer necessary to carry out a detailed study (=circumscription of a contamination) in the presence of backfill in the soil or to carry out additional studies when the treatment work lasts less than 180 days. This simplification resulted in a 24.5% reduction in administrative costs between 2012 and 2018. The number of studies per se has decreased, but the work of the sub-division's officers has increased, as they perform more and more tasks that are not required of experts to avoid having to pass on this cost to their clients.

The figures also show that the rate of declaration of compliance of studies from the first submission has gradually increased to almost 90% (Figure 6). This is also explained by the measures taken in the last Soil Ordinance to promote administrative simplification and speed up the assessment of study compliance, but above all by the introduction of an accelerated procedure for the administrative processing of study reports by intensifying exchanges with soil contamination experts through so-called unofficial additional information (additional information voluntarily sent to Brussels Environment within very short deadlines, by e-mail/telephone, to complete the file and thus avoid the exchange of official letters that extend the processing time).

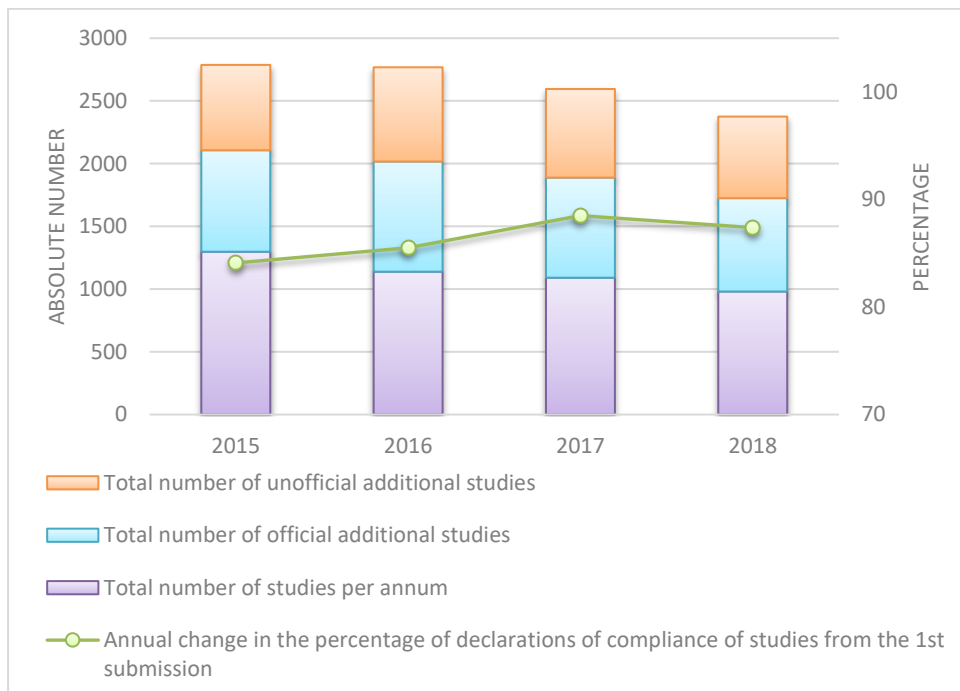


Figure 6: Studies and additional studies

Where studies have shown that this is necessary, treatment work is undertaken on contaminated land. Since 2005, the combined surface area of land treated stands at 608 ha (Figure 7). Treatment work carried out between 2015 and 2018 alone represents 44% of the 608 ha (267 ha treated). At this rate, in 2029, the 876 ha of land identified on the basis of the soil condition inventory as contaminated should be treated. These figures take into account currently known data and relate only to environmental liabilities. They therefore do not include future contamination that

could be caused as a result of the operation of high-risk activities (e.g. oil tanks, petrol stations, garages, etc.).

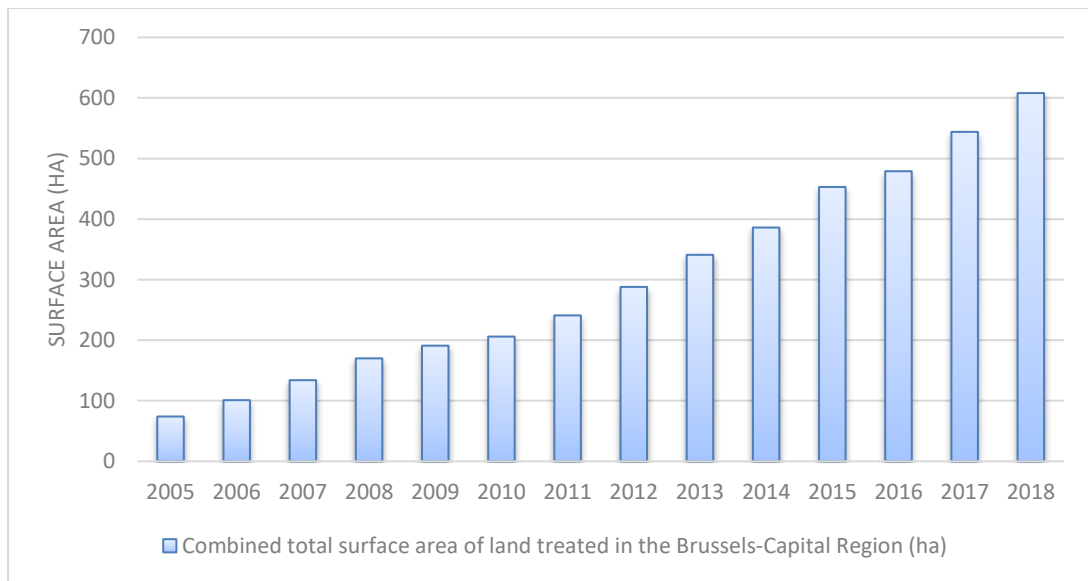


Figure 7: Treatment of contaminated land

3.3 Grants

As explained in section **Erreur ! Source du renvoi introuvable.**, since 2007, the Brussels-Capital Region has been awarding grants for those subject to obligations who are victims of orphan contamination, i.e. contamination for which they are not responsible or caused by insolvent persons. Since 2007, three decrees have followed one another, each time increasing budgets or extending the conditions for awarding grants. As a reminder, the decree of 12/07/2018 significantly increased the ceilings and percentages for the refund of grants (see section 2.1.2b).

The budget allocated by the Brussels-Capital Region to this financial instrument is substantial and has been constantly increasing since 2014 (Table 1). It is also important to note that the budget spent has almost equalled the budget planned almost every year. Indeed, significant budget increases were voted on each time the decree relating to the awarding of grants was amended. The aim is of course to provide financial support to those subject to obligations so that they can meet the costs of studies and possibly treatment work.

Table 1: Budgetary evolution of soil grants between 2014 and today

Years	Planned budget (€ million)	Budget spent (€ million)
...< 2014	~0.7	~0.7
2015	1.2	1.2
2016	1.5	1.5
2017	1.5	1.25
2018	1.6	1.6
2019	2.0	

As illustrated in Figure 8, the number of grants awarded per year varies between 400 and 500. For legal entities and natural persons alike, the percentage of soil grants awarded, which is defined by the ratio between the number of grants awarded and the number of potentially eligible grants, varies between 60 and 80%. This shows that many private citizens or companies are not yet aware that there are grants. That is why, since 2016, we have also been actively prospecting (email, telephone) for people or companies who can benefit from a subsidy but who do not request it. We therefore list the eligible cases in which no subsidy applications have been received and then establish a personalised contact to support them in their efforts.

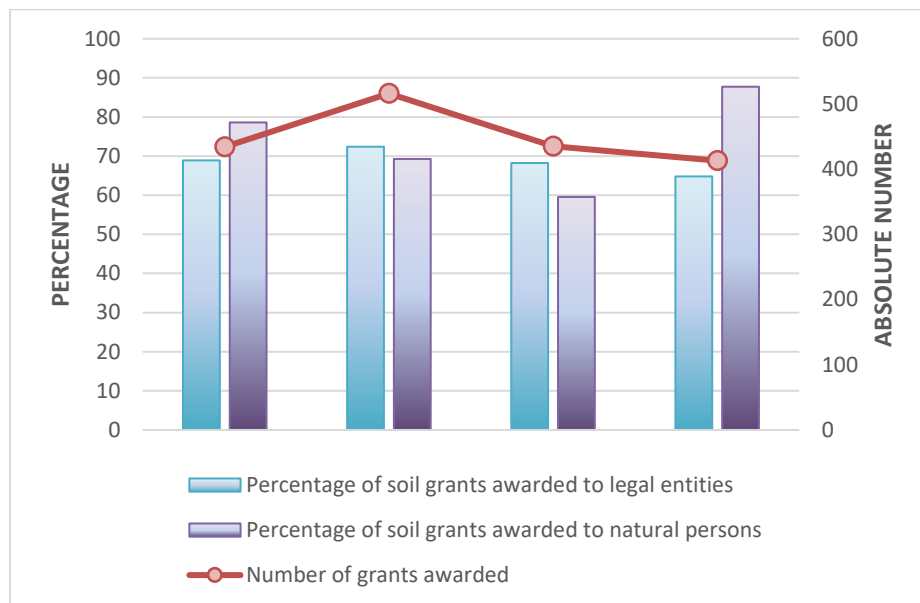


Figure 8: Evolution of the subsidy rate granted in relation to eligible grants and the number of grants awarded between 2015 and 2018

In 2018, precisely € 1,599,879.54 was granted, which is equivalent to 405 grants. Of these, 156 grants were awarded to natural persons and 249 to legal entities. These figures are among the highest ever achieved, demonstrating Brussels Environment's commitment to supporting and stimulating the management of contaminated soils in Brussels.

3.4 Sectoral funds

Grants are not the only source of funding for studies and works to treat contaminated soil.

First of all, there are the sectoral funds, i.e. funds that focus on certain sectors, that is to say the most polluting sectors and industries. The first sectoral fund to be set up was Bofas (2.4.3a), further to the 2002 cooperation agreement between the Federal State and the three Regions. It focuses on petrol stations. Applications

closed in March 2008. 93 requests for assistance were processed in Brussels at a total cost of € 18 million.

In the same vein, Promaz (2.4.3b) has been in negotiation since 1999 and applies to heating oil tanks. Many years of discussions between the various actors seem to finally be coming to fruition for 2019 with a change to the non-profit association which currently manages Bofas.

In recent years, Brussels Environment has also tried to set up sectoral funds for other sectors such as garages and dry cleaning operations. Discussions are still ongoing on this subject.

3.5 Public treatment

A final financial tool is to fully cover the cost of the studies and the treatment of orphan soil contamination in two specific cases. In fact, the current legislation provides for the study and treatment of contaminated land to be carried out on a specifically determined site and assigns a specifically identified person as the party responsible. This system works in 90% of cases, but some complex situations do not find a solution and require the direct intervention of the public authorities. These include neighbourhood-related contamination and that of large industrial brownfields.

Since the project was launched in 2017, 24 parcels have been studied on 3 sites: the abandoned part of Schaerbeek Formation station, the land surrounding the West Station and private parcels located between Rue de Liverpool and Rue du Compas in Anderlecht. The total area of these 3 sites is 43.03 ha. The studies already launched cost € 231,741. The budget allocated for 2019 is € 165,000.



3.6 Soil map and inventory

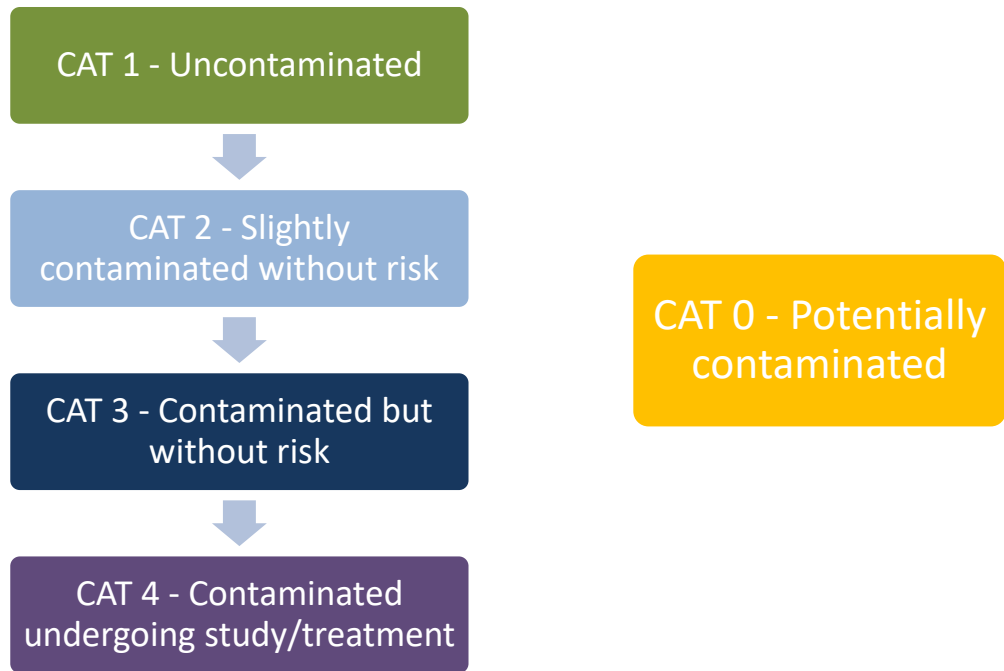
Thanks to the soil map, a Brussels landowner can directly have information on the absence of contamination, or the presence of contamination, on their parcel (Figure 9). This map, which is accessible on the Internet, also provides useful information such as the history of high-risk activities on the parcels or a summary of the studies carried out there.



Figure 9: Soil map (http://geoportal.ibgebim.be/webgis/inventaire_sol.phtml)

The soil map is a direct result of the soil inventory that was validated in 2015 and is constantly updated. At present, the map has 13,973 registered sites (Figure 10). However, this map is not fixed and a permanent monitoring is carried out by our services to continue to update it. For example, in 2016, 4,902 sites had been updated using data that our agent's process on a daily basis (reported accidents, studies and work carried out, high-risk activities started/disposed of/discontinued).

It is important to recall the significance of the different soil categories in Brussels:



Over time, it can be noted that category 0 is gradually decreasing (Figure 10). In fact, this category includes all potentially contaminated and unsurveyed land. It is therefore only natural that the land in this category should gradually disappear and be moved to categories 1 to 3, which are increasing since these categories correspond to land already studied.

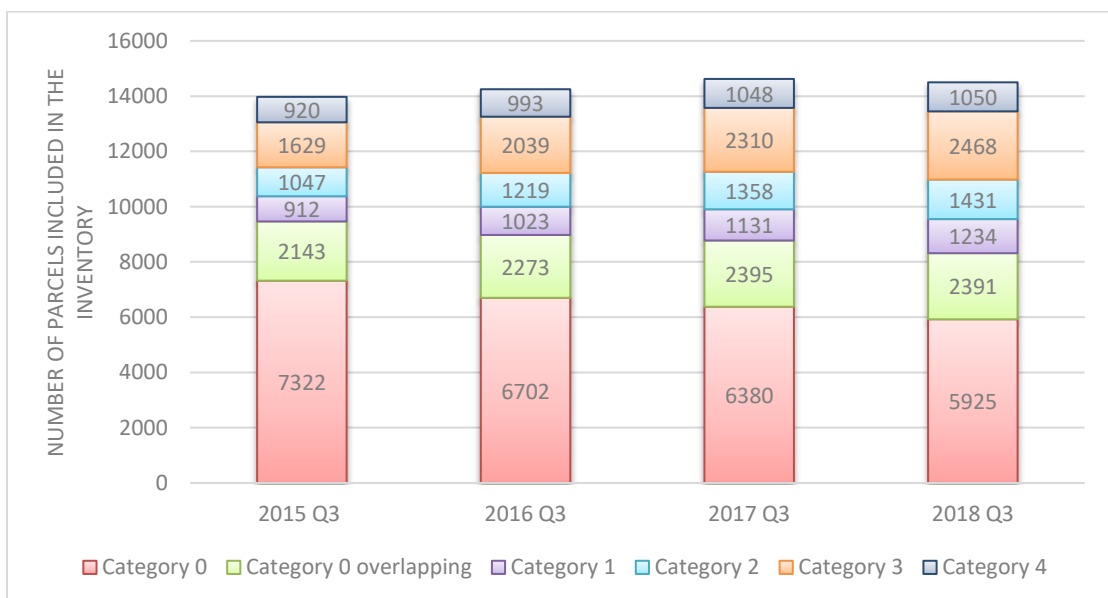


Figure 10: Soil inventory

3.7 A paperless working environment

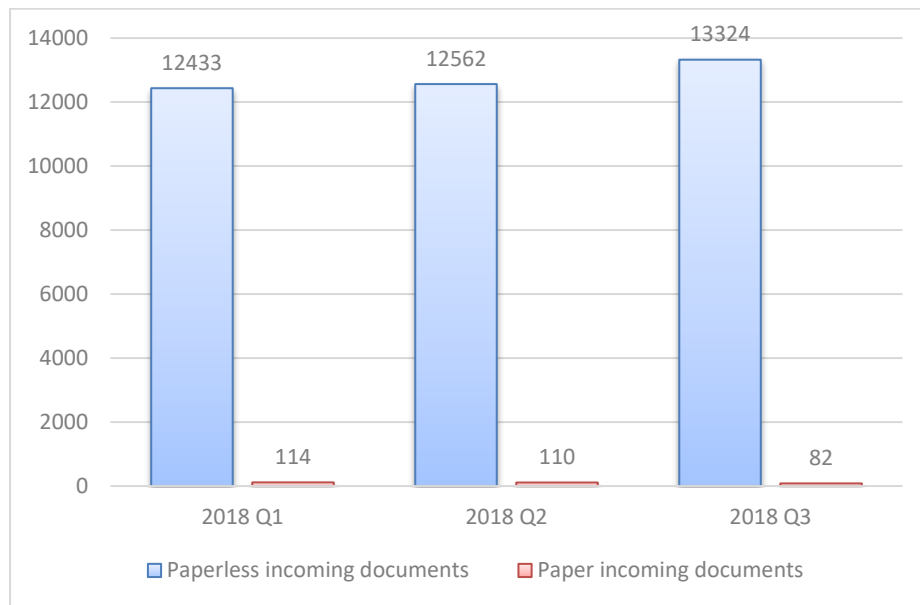


Figure 11: Paperless incoming documents

Finally, from a strictly administrative point of view, the Soil sub-division has made a major effort to switch to a paperless environment and to embrace administrative simplification. For both incoming and outgoing documents, we make every effort to use exclusively electronic means. Finally, in 2018, we have reached a rate of 99% of electronic incoming documents and 97% for outgoing documents.

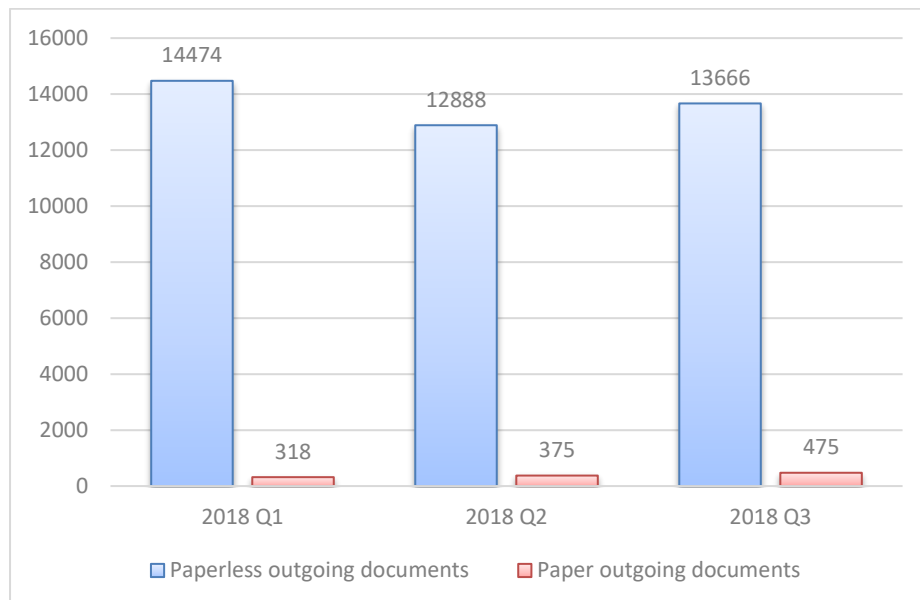


Figure 12: Paperless outgoing documents

4. Conclusion

Within Brussels Environment, the Soil sub-division is tasked with preventing and managing contaminated soils in order to build a sustainable city. Since 2014, the actions of the Soil sub-division have focused mainly on soil contamination. To this end, three areas have been developed and constantly improved:

- Administrative simplification via: the improvement of our IT tools such as the Soil Database, the Alfresco automatic mail sending system, the switch to a paperless environment, the development of the soil condition inventory and in parallel the publication and daily update of the soil condition map, the Brusoil sharing and targeted communication portal, etc.
- The acceleration of procedures via: the combination of the various studies, procedures differentiated according to the type of contamination, the elimination of certain situations giving rise to obligations and unnecessary public inquiries, the creation of shortcuts in the overall procedure, the addition of new possibilities for exemptions from obligations and the relaxation of existing exemptions, the combination of several decisions in a single document to shorten deadlines, the formalisation of requests for individuals through the introduction of standard forms and letters, etc.
- The strengthening of financial instruments: the awarding of grants for soil studies, the establishment of sectoral funds for the remediation of contaminated soils, the subsidisation of the treatment of contaminated soils via ERDF funds, the public treatment of certain land, the establishment of central procurement agencies, the subsidisation of scientific studies, etc.

For the coming years, the Soil sub-division will certainly continue to work along these three channels while launching new projects such as: the sustainability of public treatment, which aims to help the development of the Region by facilitating the rehabilitation of industrial brownfields, the establishment of a permanent fund dedicated to the soil in order to facilitate the promotion of a proactive soil remediation policy in the Region, the improvement of services to individuals and companies by developing web tools such as the Brusoil platform or the map of the soil condition inventory.

The other major project carried out by our sub-division will be to develop an integrated vision of the problems and opportunities related to the soil. The underlying idea is to consider the soil in its entirety in order to broaden our vision of this resource, which is essential to the well-being of the inhabitants of the Region through the ecosystem services it provides us: infiltration and filtration of rainwater, food production, sequestration of atmospheric carbon or the preservation of archaeological archives, etc.

Give the scope of its actions and projects, the Soil sub-division is one of the driving forces behind the Region's strong environmental ambition and contributes in its own way to solving socio-economic and environmental challenges.

In order to honour all these promises, the entire team of the Soils sub-division will put all its energy into ensuring that its work is efficient, reliable, of high quality and at the service of the people of Brussels.



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