

Did you say biodiversity?

2010-2014 report

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Editorial:

Did you say biodiversity?

Today, our commitment to supporting biodiversity seems natural, whereas this topic might have previously seemed far removed from the reality of our business. For nearly five years now, Gecina has positioned biodiversity at the heart of its environmental action. From the initial trial phases, based in particular on green facades or terraces, today we are moving forward with a structured approach and a biodiversity strategy that is recognized by the public authorities.

Our project is built around sharing. Sharing value with our customers by conceiving buildings that continue to deliver higher levels of comfort and wellbeing. Sharing with representatives from civil society, such as the French association for the protection of birds (LPO), combining support for environmental actions and sharing expertise. But also sharing value with our shareholders, capitalizing on the increase in our portfolio's intangible value generated by incorporating biodiversity into our construction and operational phases.

Sharing also means communicating on the various stakes involved with a topic that might at first glance seem to be reserved for certain specialists. We have created this specific report on biodiversity to demystify this. Rather than simply listing the initiatives, we wanted to describe a process that has guided our growing awareness and then the acceleration of our actions. I would like to thank all the experts who, through their insights that you will be able to discover in these pages, have contributed to this document. Their commitment alongside us is certainly an essential factor for our achievements, our progress and our ambition.

Lastly, this brochure is part of a specific agenda. By becoming the copilot for the 29th initiative from the French sustainable building plan (Plan Bâtiment Durable), entitled "Building and Biodiversity", we now have a responsibility to share our engagement and commitment within the construction industry. We will be embracing this new challenge with humility and dedication in order to promote and share our expertise as widely as possible, and facilitate the growing influence of outstanding actions developed throughout France and around the world.

I hope you enjoy reading this report.

Bernard Michel, Gecina Chairman



.....
“ We now have a responsibility to share our engagement and commitment within the construction industry.”



Rethinking biodiversity in the city: new look at ecosystemic services

While global warming requires an urgent rethink of our consumption practices in the broadest sense, preserving biodiversity requires a new approach to urban development in particular. The challenge is to ensure that we do not leave it too late to discover to what extent we are dependent on services provided by our various ecosystems.

.....
“ **The services provided by our ecosystems are valued at 25,000 billion euros annually.** ”

The environment is often approached from an ecological perspective, but very rarely from an economic perspective. However, there is no shortage of information for anyone interested in finding out more about how we are dependent on the

biosphere. This concept itself may come as a surprise. How can the men and women who populate the planet be dependent on nature...especially in urban environments? To answer this question, there is no need to turn to NGOs or associations. The world's most renowned economists are able to offer accurate evaluations. For instance, back in 1997, America's Robert Costanza valued the services provided by our ecosystems at 25,000 billion euros annually...more than the total figure for global GDP!

Value without any market

One of the difficulties with the economic approach to biodiversity is that its price is still difficult for all of us to understand. It is therefore tempting to think that it does not have any value. Nevertheless, it provides an extremely large number of services - referred to as ecosystemic services (43¹ in total). They are broken down into four categories: supply services (water, timber, etc.), regulation services (maintaining air quality, preventing water levels from rising and flooding, etc.), support services (soil formation, photosynthesis, etc.) and cultural services (quality landscapes, outdoor sports, tourism, etc.).



¹ The French “national biodiversity strategy” (Stratégie Nationale pour la Biodiversité) has selected 43 services provided by ecosystems in France / Source: CREDOC, Asconit, Biotope, 2009

Role of nature in the city

For the first time in history, more than half of the world's population live in urban settings. According to research by the United Nations, this ratio could reach 70 to 80% by 2050, with population levels in agglomerations to rise sharply. This is where the whole paradox lies. 50% of humanity lives on 2% of the planet. These megalopolises are using more and more resources that come from biodiversity. For instance, Greater London's ecological footprint has been estimated at nearly 300 times its geographical area.

Artificial ground cover

However, natural resources, whether renewable or not, are finite and the world is starting to become aware of this. Urban densification is resulting in massive areas of ground covered with asphalt and becoming increasingly impermeable. When it rains, the water runs off without being able to be absorbed. This means that water tables do not receive enough supplies and increases the risk of flooding. Today, artificial ground cover makes up 9% of the whole of France, and this trend is accelerating, with the equivalent of one region or département losing its natural qualities every seven years. At the same time, urban development is contributing to the fragmentation of habitats for fauna and flora. Due to a lack of welcoming space and adapted ecosystems, species are disappearing, resulting in the disappearance of other species that depended on them, weakening the natural world's main balances.

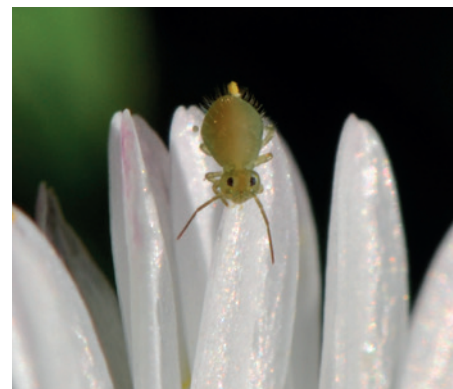
Urban heat island phenomenon

The density and growing number of buildings with vast glazed areas or even energy production systems are behind the phenomenon of urban heat islands (UHI), which increase temperature levels locally in cities. Biodiversity is directly affected, excluding certain species and attracting others that like higher temperatures. The impacts on communities are also extremely significant, particularly during heatwaves, when temperatures can be several degrees higher than in neighboring rural areas. According to the Paris climate agency, the urban heat island effect gives nighttime differences of around 2 to 3°C on average over the year between Paris and neighboring rural areas.

On average, a city absorbs 15 to 30% more heat than its immediate environment. Considering the effects of global warming, it appears to be essential to take measures to help mitigate the urban heat island phenomenon. With this in mind, increasing the level of planted areas or creating bodies of water can be very effective. This helps refresh the air in cities thanks to the principle of evapotranspiration, which explains why cities such as Paris, following Singapore, Berlin and Chicago, want to step up operations to green building roofs by establishing close relations with local planners and developers.



Building designs have an impact on the urban heat island phenomenon.



Experts estimate that one plant or animal species disappears every 20 minutes.

Natural air processing

Vegetation has a natural capacity to improve air quality. A mature tree can reduce the concentration of pollutant particles and fine particulates in the air and soil by 20 kg per year. This service is essential because fine particulates are a direct factor behind the nitrification of urban soils. Reducing the number of trees has an impact on the processing capacity for air and soil, with various consequences, including traces of heavy metals found in surface or deep water.



Urban densification is resulting in massive areas of ground covered with asphalt and becoming increasingly impermeable.

Berlin is promoting the greening concept

.....
 “The city of Berlin has developed an incentive-based policy to restore biodiversity”

Central Berlin contrasts with the area around it, which is particularly green. To tackle the growing presence of artificial grounds and urban heat island effects, the city has developed a policy of incentives to restore biodiversity based on the biotope area factor (BAF). The principle is quite simple and based on local consultation. All property owners together must achieve BAF targets through planting or greening actions on the ground.

New York is investing in biodiversity

Major cities like New York are starting to pay the price for a loss of biodiversity. Indeed, the city’s authorities realized that it was more cost-effective to train landowners in the Catskill Mountains² on better farming practices than to build a new water treatment plant estimated at over 6 billion dollars. The solutions selected cost less than 2 billion dollars. They aim to prevent nutrient and waste runoff into neighboring waterways. Alongside this, some particularly interesting initiatives have been rolled out, including the “High Line”, an elevated urban

park developed on a 2.3 km stretch of former railway lines. This “green lung” in the heart of Manhattan is also a popular tourist attraction. On the Tripadvisor site, it is ranked as the 8th best site to discover, just behind the Metropolitan Museum of Art.

Cities, pools of biodiversity

In France, the national Grenelle de l’Environnement initiative has established the concept of green grids (planted areas) and blue grids (wet areas), as well as eco-corridors to ensure connections between pools of biodiversity. Cities, wildlife and flora are therefore closely linked. They are part of this vast network that is helping maintain and restore species. According to certain specialists, one animal or plant species disappears every 20 minutes. Unfortunately, this rate is expected to accelerate further over the coming decades. The main cause is the destruction of habitats linked in particular to farming or urban developments.

Challenge for communities

Looking beyond services to regulate heat or tackle the growing issue of impermeable ground cover, biodiversity is also inseparable from the wellbeing and fulfilment of human beings. Moreover, communities are calling for more and more nature in their cities. This has led to initiatives in most of the municipal areas across France, from very simple steps to much more ambitious actions, as in Paris, which now has a biodiversity plan. Our ecosystems provide a range of cultural services. Environmental amenities contribute to the appeal of cities. A green district will always be more pleasant than another without any natural elements and this is reflected in property values³

² The Catskill Mountains are a mountainous region in New York State, to the north of the city.
³ “Le rôle des espaces verts dans les arbitrages résidentiels des ménages” (2008, Gueymard S.)

as well. In addition, gardens and parks help maintain and strengthen intergenerational and intercultural community ties and can even bring down crime levels⁴. Contact with biodiversity also influences the growing awareness of the need to respect and preserve nature. Lastly, natural elements are an integral part of our heritage.

Role of real estate companies

Faced with this new challenge to rethink nature in urban environments, real estate companies have an essential role to play. Their projects must reflect and integrate the various issues and stakes associated with biodiversity through buildings

Water shortage in Las Vegas

The city of Las Vegas faces an imminent water shortage. In addition to growing levels of consumption by its two million residents and 39 million tourists, Lake Mead, which is 50 km away, is gradually drying up. The reason for this is quite simple. The Colorado river is suffering the effects of global warming and above all the high volumes extracted upstream, particularly for agriculture. Snow in the mountains, instead of gradually melting, is evaporating as a result of the sharp rise in temperatures. The most pessimistic forecasts are predicting that the lake will be completely dry by 2021.

that are more welcoming for fauna and flora, with a low ecological footprint and responsible designs, embracing the need for human beings to be in contact with natural elements. On an individual basis, these actions will of course have a limited impact. However, by joining them together with shared ambitions, their effects will be able to tackle the major issues affecting biodiversity. According to The Economics of Ecosystems & Biodiversity, the cost of not taking action is estimated at nearly 14,000 billion euros for 2000-2050, equivalent to 7% of global GDP per year by 2050.

Essentials



The services provided by our ecosystems are estimated at over 25,000 billion euros per year, without anyone having to pay a single euro for this.



With more than half of the world's population living in urban settings, the planet is seeing major urban densification, with direct impacts on biodiversity and therefore ecosystemic services.



Certain major cities around the world are taking significant steps to maintain and preserve biodiversity.

⁴ "Environment and crime in the city! Does vegetation reduce crime" (Environment and Behavior vol. 33, Kuo Frances E. & W. C. Sullivan)

Meeting with Hortense Serret

Author of the doctoral thesis

“Company green spaces in the Paris Region: what challenges for urban biodiversity¹”

This thesis contributes to scientific knowledge in this field and responds to the concerns of businesses regarding this issue. Hortense Serret is a Biodiversity and Biophilia project manager with ARP-Astrance.



What are the main findings from your thesis?

“The first part of the thesis aims to identify the role played by companies’ green spaces in terms of ecological connectivity. We found that this was important because company green spaces account for up to 25% of this connectivity. This percentage is true for species that are relatively well dispersed in urban environments, such as birds or certain butterflies. They move about thanks to these many green spaces, flying from one to another. In the Paris Region, corporate green spaces represent 8,700 hectares,

equivalent to 8% of the total urban green spaces and 15% of the area of gardens in private homes. The largest spaces are located in outlying areas and represent an interface between urban centers and rural areas. So these areas can be harnessed to bring nature back into the city. We also sought to determine the composition of these gardens and the way in which their management influences this biodiversity. We took samples from 56 company green spaces. On average, they represent 25% of the plot. 34% of companies have ecologically-managed areas, in other words spaces that are rarely mown or even areas of undergrowth that are left virtually unmanaged. In most cases, this ecological management approach is not a deliberate choice, but more for cost reasons. From this perspective, the level of awareness among businesses varies considerably. For some, green spaces are constraints. For others, they are showcases. This generally depends more on the

people involved than the companies themselves. Our research found that the management of green spaces was the most influential factor for the diversity of the species found. If landscaped areas are mown regularly, certain plants cannot reach their reproductive stage - flowering - and they attract fewer species such as wild pollinators”.

.....
“ **A highly diverse range of plants is appreciated far more than a simple lawn.** ”

What is the relationship between employees and green spaces?

“As part of our investigation, we also interviewed employees working at the sites that we were researching. We were looking to determine whether they appreciated the presence of green spaces and if so, whether this was linked to the diversity of the species present. 87% of the 500 people surveyed said that they appreciate green spaces. 33% mentioned the beauty of the garden

¹ Espaces verts d’entreprise en Île-de-France: quels enjeux pour la biodiversité urbaine ?

areas. 31% see these spaces as calm and peaceful. 27% highlighted the rich levels of fauna and flora. Only 15% appreciated these spaces for their “green” aspect as opposed to the built-up areas of the city. So people differentiate between the city’s green areas and biodiversity, which is extremely encouraging. We also found that as the level and diversity of the species increases, more employees mention a calm and peaceful location. For many of them, their life at work would be more difficult without this presence of nature. These external spaces therefore make a full contribution to their wellbeing. Their impressions vary depending on the actual make-up of these spaces. A highly diverse range of plants is appreciated far more than a simple lawn. Green spaces are areas that can be capitalized on to renew the focus on biodiversity. People need to get used to observing nature again on a day-to-day basis because this will encourage them to get more involved in supporting its conservation”.

What strategies do businesses need to adopt faced with the issue of biodiversity?

“Biodiversity is an extremely vast topic and not all businesses have the same relationship with it. Their understanding of this issue is focused on image and cost aspects. Today, it is seen more as a constraint and less as an opportunity for taking positive action to help stand out from the competition. This vision is still relatively negative. Today, biodiversity-related issues are taken into account more because this is required by the changing regulatory framework. At the same time, this is also a very fashionable topic and everyone wants to get on board for this trend, sometimes with opportunistic initiatives. The strategy of businesses, including those from

the construction sector, is therefore to take action first. Then they realize that biodiversity is a real issue and it is becoming essential to take steps to minimize the impacts with construction projects when possible by choosing appropriate areas of land, by avoiding urban sprawl, by trying to design less energy-hungry buildings and, more generally, by integrating buildings into their environment. Real estate projects must systematically strive to minimize habitat loss for species and adapt to their environment”.

What is the role of businesses in terms of raising people’s awareness?

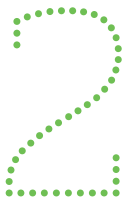
“Businesses have a role as pioneers and driving forces to raise awareness.”

“They can set an example by developing actions with their green spaces that people might not be willing to do at home. For instance, it is much easier for employees to get used to the presence of nettles in a company setting. In fact, they will gradually get used to them and ultimately try them out at home. Businesses have a role as pioneers and driving forces to raise awareness, encouraging people to develop new behaviors and strengthening awareness of conservation issues”.

Thesis committee

Hortense Serret’s thesis, presented on November 14, 2014 at the French national history museum (MNHN), received the jury’s congratulations. It was carried out at the CESCO conservation sciences center laboratory, overseen by Nathalie Machon and Philippe Clergeau and managed jointly with researchers from Université Paris I, Richard Raymond and Laurent Simon.



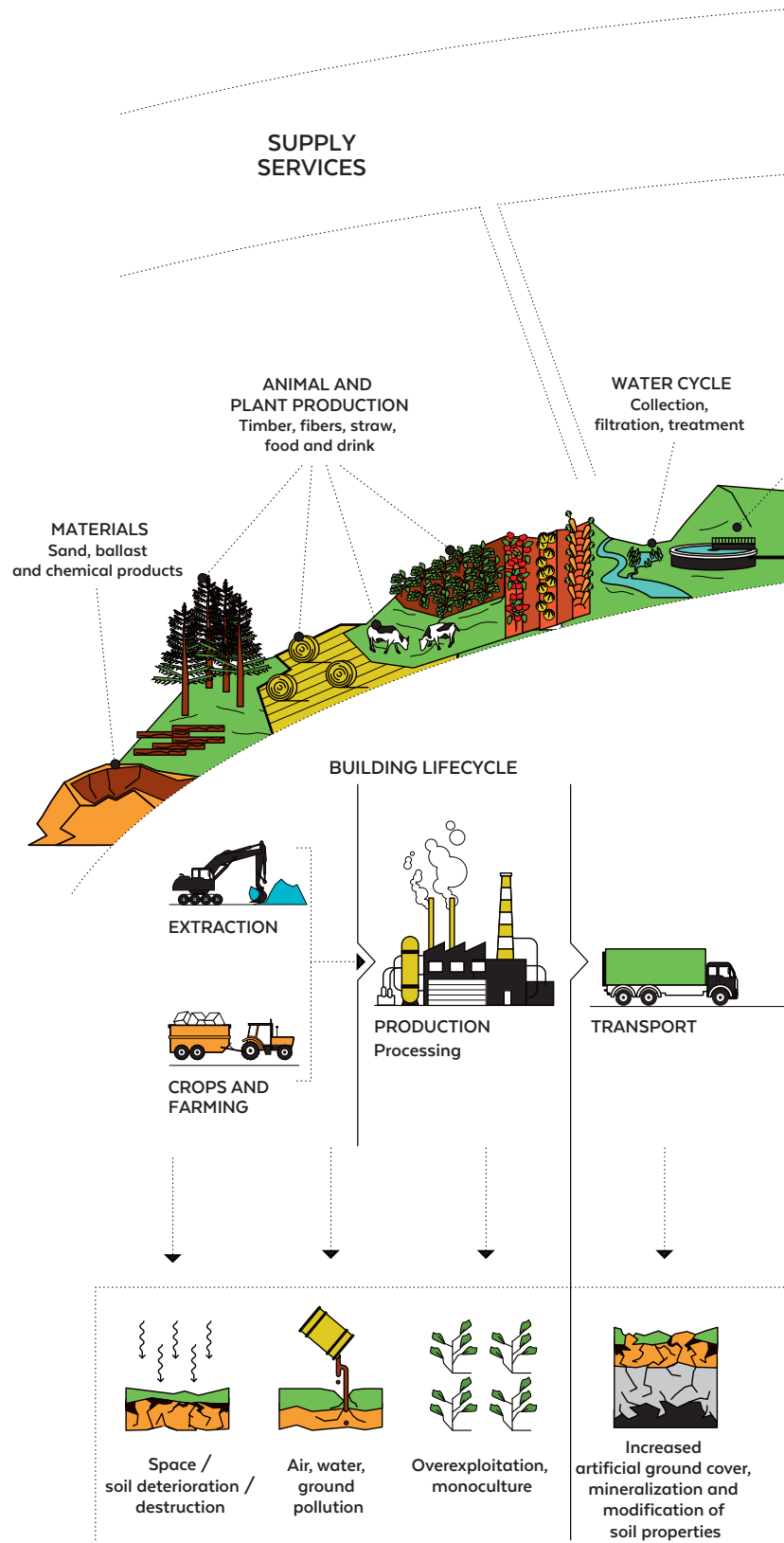


Building value creation chain: dependencies and impacts

Gecina is extending the analysis of its corporate social responsibility to include all components within its value creation chain by identifying its dependencies and measuring its direct, indirect or induced environmental, social or economic impacts, particularly in relation to biodiversity.

For instance, building materials represent hundreds of millions of tons of raw materials used each year to develop infrastructures and buildings. Extracted and used around the world, processed and transported, stored and then reprocessed, these resources, whether renewable or not, concern a building's overall impacts on biodiversity, characterized by the term "gray biodiversity", in keeping with the idea of "gray energy" (energy required to manufacture materials).

Aware that this gray biodiversity also needs to be taken into account to preserve and develop biodiversity, Gecina measures the environmental footprints of its projects and more specifically the various materials which they are made from by carrying out lifecycle analyses.

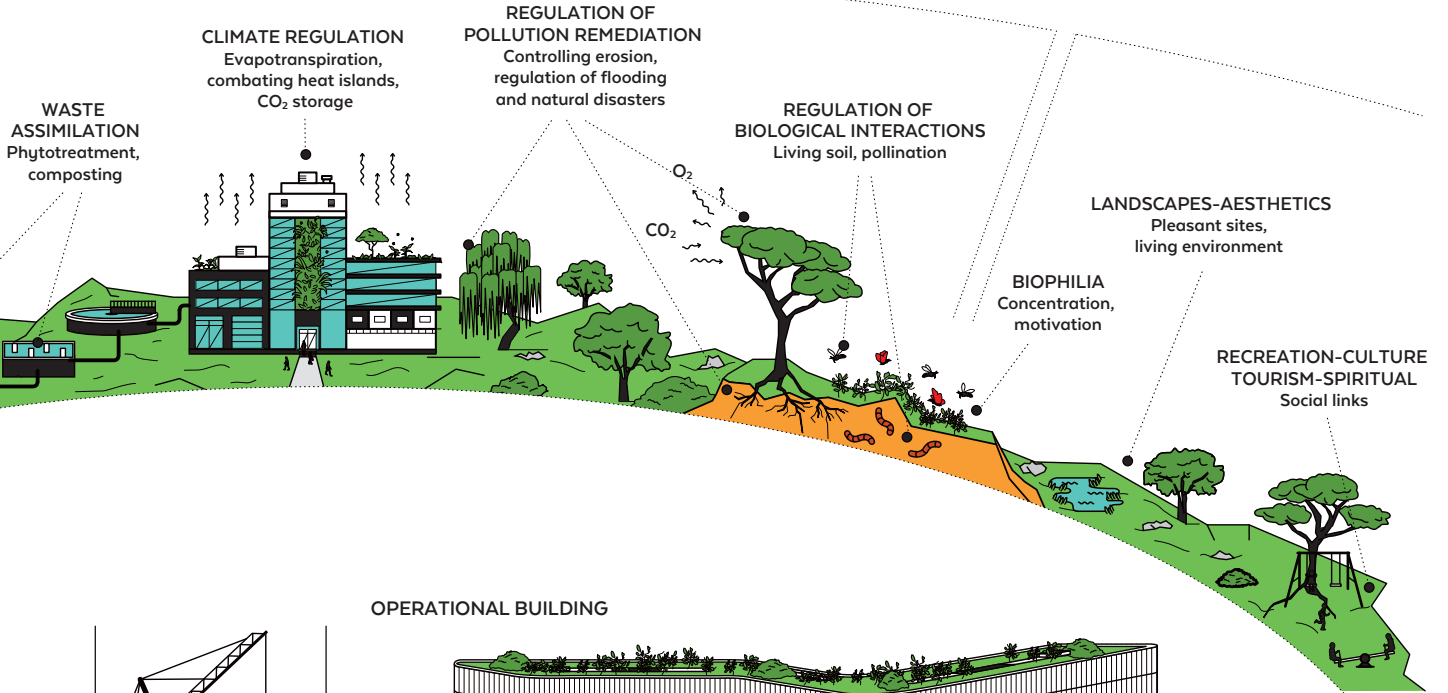


Source: Millennium Ecosystem Assessment
Natureparif/Editions Victoires – Bâtir en favorisant
la biodiversité – Economie et Biodiversité
(Building while promoting biodiversity - Economy and biodiversity)

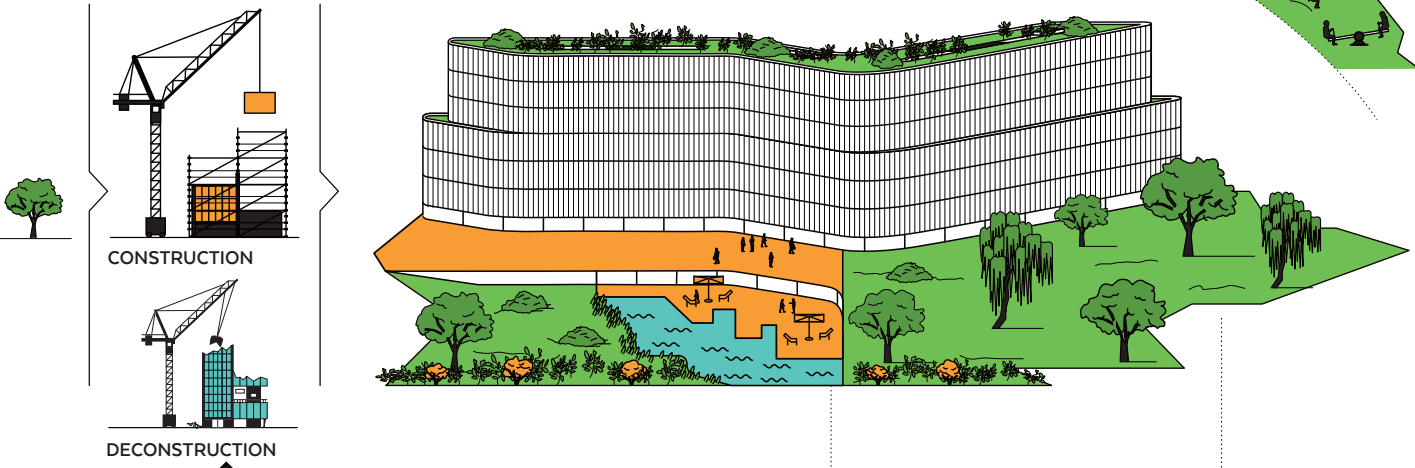
DEPENDENCIES

REGULATION SERVICES
SUPPORT SERVICES

CULTURAL SERVICES



OPERATIONAL BUILDING



IMPACTS



3

Biodiversity: shared vision of the challenges faced

Interview with Philippe Depoux, Gecina's Chief Executive Officer

2012 marked a turning point for Gecina with the definition of a dedicated biodiversity strategy. Philippe Depoux, Chief Executive Officer, looks back over the challenges and stakes involved with this major topic for the company and the real estate industry.

Why has Gecina made this commitment to biodiversity?

“Today, it is clearly established that renewable natural resources are being used more quickly than they will be able to regenerate. At the same time, levels of waste are exceeding the capacities for recovery and recycling from the environments that they are discharged into. The factors behind these phenomena, which represent a direct threat to preserving the diversity of species, are clearly identified. To some extent, they are attributable to increasingly dense population levels and strong urbanization. Cities contribute directly towards the growing presence of artificial ground cover and the fragmentation of habitats for plant and animal species. And yet our business, even

.....
“ We are closely linked to the challenges and stakes involved with preserving biodiversity, in terms of both our societal responsibility and sustainable value creation for our assets. ”

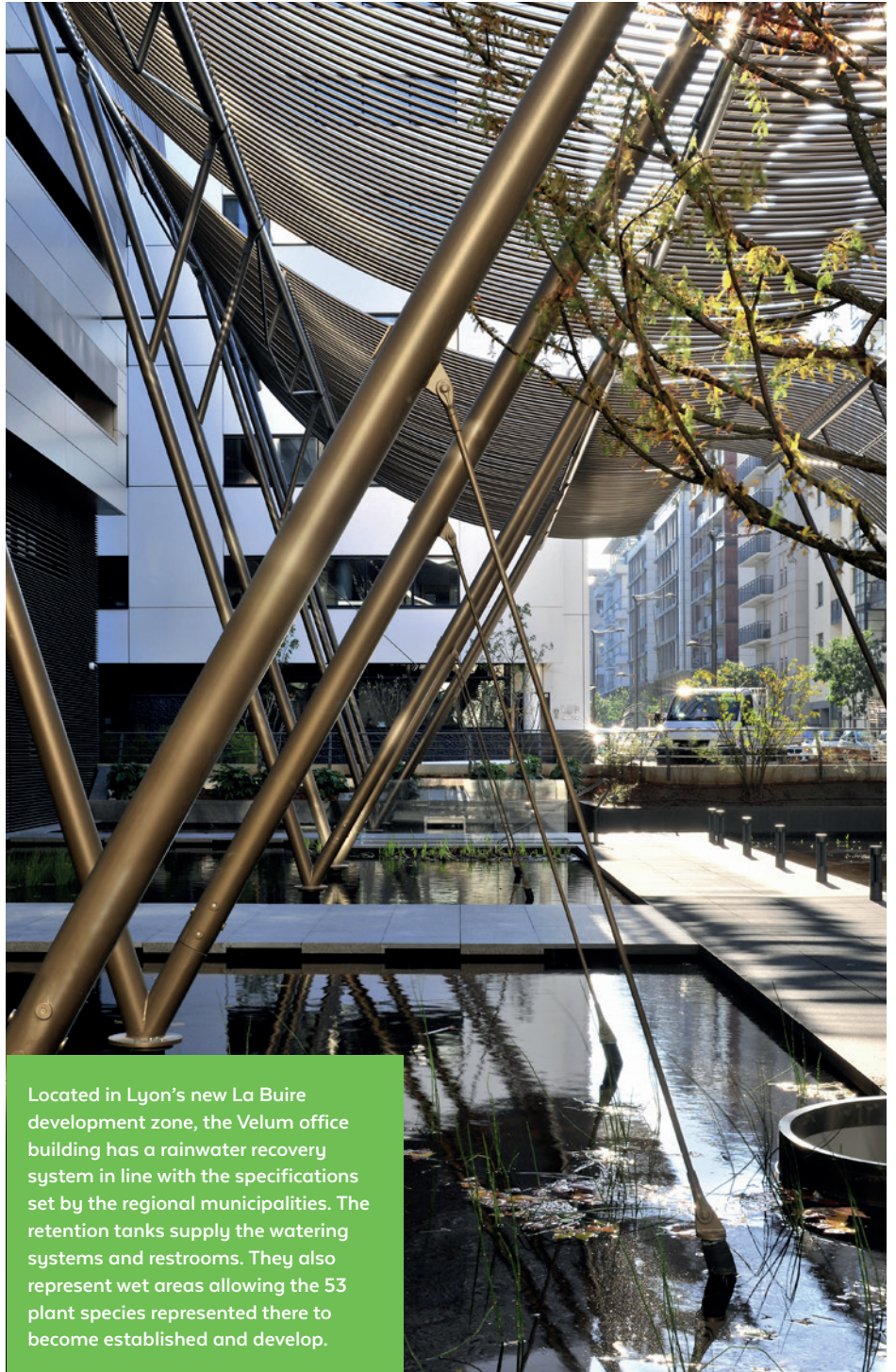
if this may seem less obvious than for other sectors, such as the pharmaceutical or cosmetics industries, is directly dependent on biodiversity for the quality of the natural spaces surrounding the areas for living, working or even receiving care within our portfolio. We are therefore closely linked to the challenges and stakes involved with its preservation, in terms of both our societal responsibility and the sustainable creation of value through our assets”.



What other factors are behind this commitment?

.....
“ We see the integration of biodiversity as a significant factor to enable us to stand out. ”

“Two factors support our approach, even if they were not initially behind our commitment. The first concerns the changes to the regulatory framework, requiring all regional authorities to incorporate various biodiversity elements at the heart of their urban planning documents (local urban development plans (PLU), comprehensive regional development schemes (SCOT), etc.) by the end of 2015. The second depends on the ambition of the municipalities themselves, often encouraged by the influence of dynamic stakeholders from the local civil society sector. In this respect, the Capital Biodiversity Plan, adopted by Paris’ City Council on November 15, 2011, illustrates the interest taken in this subject by certain cities. In this way, the entire real estate sector will be widely affected by this clear political commitment, with the risk of building permits being rejected for certain projects that are not compliant. By taking this dimension on board since 2012, we definitely have a certain lead, which gives us a strong level of legitimacy today in relation to public policymakers. Gecina is still a commercial business. We see the integration of biodiversity as a key factor enabling us to stand out, positioning our customers’ wellbeing and our environmental responsibility at the heart of our review processes”.



Located in Lyon’s new La Buire development zone, the Velum office building has a rainwater recovery system in line with the specifications set by the regional municipalities. The retention tanks supply the watering systems and restrooms. They also represent wet areas allowing the 53 plant species represented there to become established and develop.

In concrete terms, how is this reflected in your projects and developments?

“Biodiversity is one of the 17 stakes in our CSR policy. As such, it has specific performance indicators, objectives and action plans. To further strengthen our commitment, in 2012 we drew up a biodiversity strategy, which has been recognized as a National Biodiversity Strategy by the French Ministry of Ecology. Through it, we want to expand the responsible building concept to include the topic of the

natural world for all the new programs we launch. In terms of the existing portfolio, our aim is to develop actions on a case-by-case basis, responding to recognized biodiversity issues and respecting economic performance criteria. Sometimes, this means proposing very simple actions such as educational programs that raise our tenants' awareness with a view to better factoring in biodiversity. More generally, we aim to capitalize on effective actions, while avoiding any gimmicky approaches, which can very often be counter-productive".

Why is the co-construction concept essential for Gecina?

..... • **“ Without this co-construction approach, our commitment’s scope would be extremely limited. ”**

“Biodiversity covers multiple dimensions: scientific (knowledge of the natural world and interactions between species), social (taking wellbeing into consideration) and economic (its impact on value creation for the business and its shareholders). We believe it is essential to surround ourselves with the expertise required to perfectly identify the stakes involved and deliver appropriate responses. We want to integrate all our stakeholders within our approach in order to share a common vision of the current situation, the objectives to be achieved and the actions to be taken together. This concerns our suppliers upstream, through the eco-design of our buildings and the sourcing of eco-responsible materials, as well as our customers and even our operators, who ensure that our existing assets are preserved correctly. Without this co-construction approach, our commitment’s scope would be extremely limited”.

Are employees fully engaged in this strategy?

..... • **“ Biodiversity is still quite a new topic within Gecina and its approach may sometimes call existing practices into question. ”**

“Biodiversity is still quite a new topic within Gecina and its approach may sometimes call certain existing practices into question. To ensure our strategy’s successful deployment, we are training up staff and rallying them around the challenges we have identified. This concerns numerous functions, from program managers to marketing, sales teams and building managers, in other words everyone involved in the value creation cycle for our portfolio. For our actions to be rolled out effectively, everyone needs to be on board. I will take a very simple example. If employees do not understand why we are asking our providers to mow grassy areas less frequently for a program as part of a differentiated approach, they will be unable to justify this when faced with comments from customers. However, if the purpose of our approach has been clearly outlined to them with training, it will be easier for them to promote Gecina’s actions and their own commitment. This is the virtuous circle of growing awareness of the importance of biodiversity that we want to develop with our teams and of course our customers”.

Does biodiversity have a cost and who funds this?

“It is misleading to look purely at the cost. Gecina is a dynamic real estate group that is constantly investing in new projects. We firmly believe that taking the biodiversity dimension into account will help increase the value of our investments. This will help us get closer to our customers by offering them increasingly high levels of comfort and wellbeing, ensuring a positive response to issues raised by the authorities, as well as creating value on our portfolio over the long term. We are strategically positioning ourselves on more responsible operating systems

and construction operations that anticipate future expectations. If we analyze the cost of greening a roof from a purely financial perspective, in the short term this will undeniably be slightly higher than conventional chipping-based waterproofing. However, the services provided are incomparable. Certain studies have shown that these roofs pay for themselves in full within 10 years thanks to their better levels of thermal insulation and highly effective waterproofing. They also mitigate the heat island effect by reducing outside temperatures locally, contribute towards the continuity of green networks and represent artificial reservoirs which contribute to the storage of rainwater, an essential approach when districts forbid rainwater from being discharged into the sewer system”.

How can customers be engaged in Gecina’s commitment to biodiversity? What challenges are involved and what value is created?

“Our customers are direct stakeholders within our commitment to biodiversity. We need to ensure that they are fully engaged in this approach, while taking their levels of maturity into account. In this way, we use the installation of beehives or nesting boxes for birds as educational and informative steps. They help raise awareness of interactions between species and exchanges with our teams. Based on this, we can then build their awareness of more complex concepts such as the importance of restoring ecosystems and ecosystemic services. This brings real benefits for our customers. International academic research has measured the impacts of biodiversity depending on the different types of assets. This shows productivity gains and lower absenteeism levels in buildings where employees have

access to green spaces. This research also reveals that patients who have rooms with views of garden areas recover more quickly and with less medication. A growing number of businesses are calling for a pleasant living environment for their staff. By explaining what we do, we are showcasing our approach, built around genuine wellbeing for their staff, reflected in productivity gains”.

Gecina is copiloting the new “Building and Biodiversity ” working group. What impact will this have for Gecina and more generally for the real estate industry?

“Gecina is particularly proud to be part of this working group, launched by the French national sustainable building plan - Plan Bâtiment Durable - chaired by Philippe Pelletier. This recognizes all the work accomplished, but is also a valuable asset for all the work that is still to be done. As I mentioned previously, the co-construction concept is essential within this process for change that may significantly call into question the cultural, social or technical foundations in place in a given area. It is only by joining forces that we will be able to achieve effective results. Together, by combining our experiences and areas of expertise, we will be working collectively for future generations. We are aware of the challenges faced and we will meet them with dedication and humility. Thanks to this working group, set up with support from the public authorities, the issue of biodiversity is no longer a matter for debate within the industry. It has become a challenge for all the stakeholders involved in real estate. A building’s construction is like a jigsaw of products built by a range of participants. In the previous paradigm, the link between the building and its environment was based on “connections”, without any

in-depth appreciation of the various dependencies and impacts. We connected to an energy production system or systems supplying water or collecting waste. The building was connected without measuring its impacts. Moving from the concept of connection to voluntary awareness of our societal responsibility involves, for instance, a stronger focus on the lifecycle of the various materials and improved coordination of the players involved throughout our value creation chain. Experts, who did not previously speak to one another, are going to have to learn to develop projects together, and instead of performance levels that were often theoretical, they will need to guarantee real performance levels in practice. Through its participation in the Building and Biodiversity working group, Gecina will be making every effort to help these processes move forward, drawing on its knowledge in this field”.

Landmark



27,913 sq.m
the total green area (ground + building) for Gecina’s new assets, representing 18.6% of the plot on average. (2013 figures)

Find out more

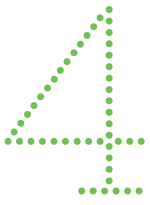


Published in 2010, the Paris Biodiversity Whitepaper is one of the foundations for the commitment by this municipality to support the

preservation of diverse fauna and flora. Combining a strategic approach with large numbers of proposals for concrete actions (many of which have been implemented since then), this whitepaper notably highlights the need to raise awareness, mobilize and even train all the stakeholders concerned by biodiversity (citizens, private-sector professionals in charge of green spaces, architects, city planners, landscape designers, etc.).

Essentials:

- From employees to customers and providers, everyone needs to be engaged in Gecina’s approach through training or awareness actions.
- All of Gecina’s new programs take biodiversity into account.
- By the end of 2015, all urban planning documents produced by regional authorities will include biodiversity elements, with a direct impact on the awarding of building permits.
- The formation of the “Building & Biodiversity” working group, launched by the Plan Bâtiment Durable, positions this as a core issue within the real estate industry.



Key dates

Timeline for Gecina's commitment

Discovering

Experimenting



2008
Creation of Gecina's Foundation

2011
Launch of the City of Paris' biodiversity plan



2008

2009

2010

2011

2008/2009

- Bug hotels.
- Support for the "wild pollinators" program led by the national forestry office and the association for insects and their environment (OPIE)

2009

- Design, development, delivery of a number of greening creations

- Green ribbon for the Anthos building, Newside, Velum, Beaugrenelle, Magistère (internal wall)



2011
Launch of work to assess a building's intangible value



2011
Mapping of Gecina's portfolio to identify biodiversity issues

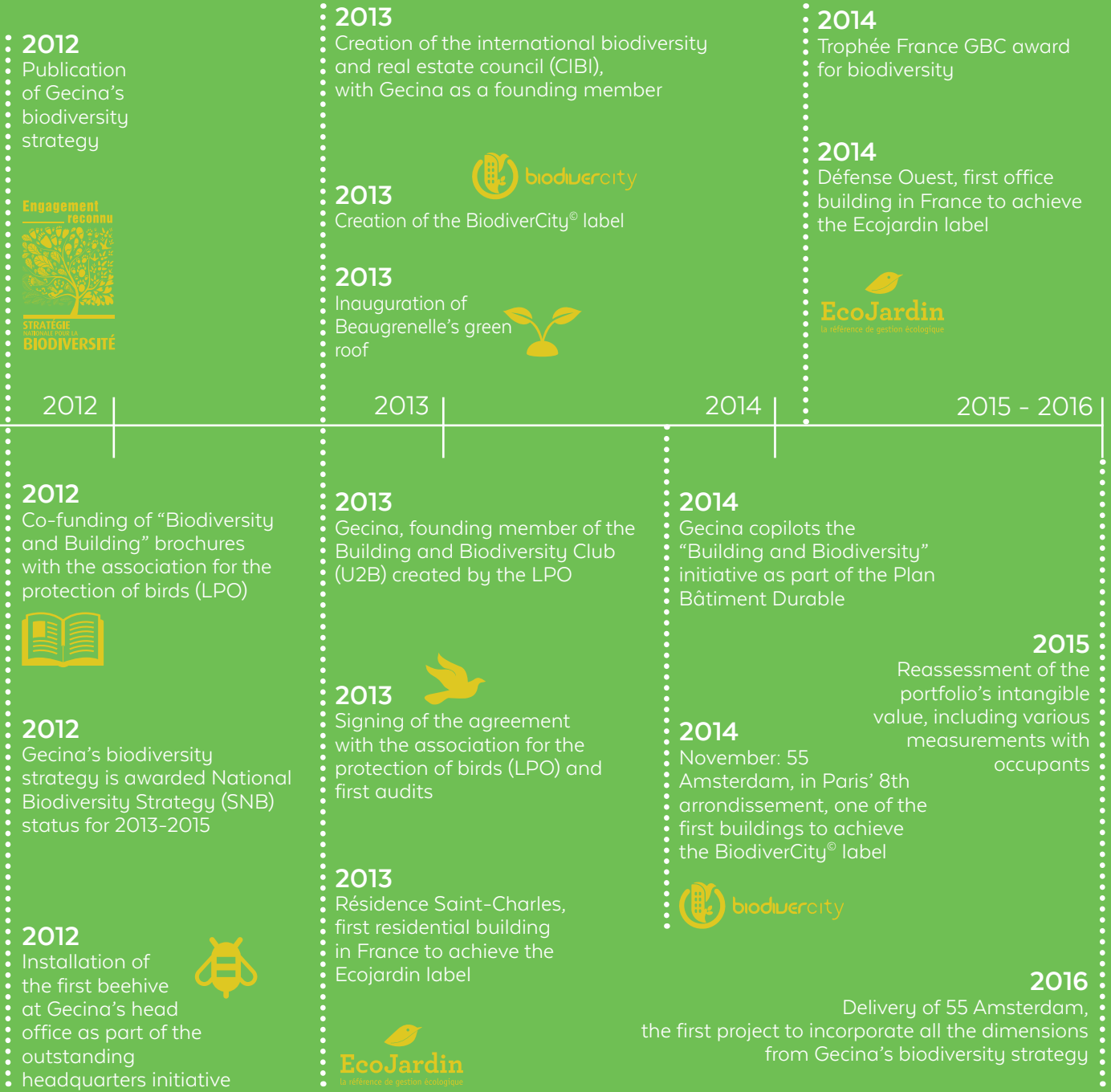
- La Buire: CAUE du Rhône landscaped urban development award for Jacob Kaplan Park



2011
Review of biodiversity at the Club Méditerranée Opio site (O6) and analysis of its contribution to value creation

Structuring

Deploying



5

Taking biodiversity issues on board

The publication of the City of Paris' biodiversity plan has accelerated Gecina's growing awareness. Following several phases trialing a new approach, such as when designing the Beaugrenelle shopping center, Gecina has chosen to build a dedicated strategy for biodiversity.

Major projects sometimes come about through simple meetings. This was the case in 2011 when Gecina became aware of the plan launched by the City of Paris to promote biodiversity and wanted to meet with the experts from Gondwana, the consultancy that mapped out this plan.

City of Paris' ambition as a catalyst

In particular, Gecina's teams were interested in one of the document's sections concerning planning organizations and developers (property developers, builders, lessors, real estate companies, etc.). It sets out the demands - initially not mandatory - of a major municipality for preserving urban biodiversity and ensuring compliance with a minimum level of green space for all new build projects, as well as greening elements and a more ecological approach to managing nature in the city. "When they discovered this document", recalls Véronique Dham, Gondwana's founder and chairwoman, "Gecina's representatives legitimately believed that it would be interesting for us to meet. At the same time, with 90%

of its properties in the Paris Region, the company had everything to gain from ensuring it was in line with the guidelines set by the City of Paris, particularly with a view to securing future building permits".

Trial with Beaugrenelle

Before making any further commitments, Gecina chose to test out a new approach to incorporating biodiversity within its portfolio through a highly concrete action. "In view of our expertise, we were asked to test out our methodology on an iconic program, the construction of the Beaugrenelle shopping center. The aim was to look into the best way of incorporating elements from the City of Paris' biodiversity plan, without generating additional costs and, above all considering the deadlines involved, without calling into question the plans drawn up by the architect and landscape designer. With 7,000 sq.m of planted roof space at stake, this was a major challenge. Indeed, this was what encouraged us to get involved in this project", explains Yves Dieulesaint, Head of CSR at Gecina (discover the project on page 24).

Gradually integrating biodiversity

.....
“Regularly increasing demands in relation to projects and their operations.”



Véronique Dham, chairwoman and founder of Gondwana

While Beaugrenelle marked a major step forward with Gecina's commitment, other programs highlight the gradual integration of urban biodiversity issues. Over the years, they reflect a steady increase in requirements linked to the definition of projects and then their operations.



Incorporating plant diversity (Horizons, Boulogne-Billancourt)

Among the various greening operations, the Horizons office building, delivered in 2011, is a particularly good example. This project, developed by Ateliers Jean Nouvel, has achieved the HQE® very high-performance rating thanks to its perfect integration into its district. It reveals four diversified landscapes. At the foot of the tower, the “new park landscape” is in keeping with neighboring vegetation. On the fifth floor, the “hillside landscape” suspended garden reflects the hills of Meudon and Sèvres. Seven floors higher up, on the 13th floor, which is particularly exposed to the elements, the “windy landscape” reflects the concept of hedged farmland with its wind-breaking hedges. Lastly, the “interior landscape” culminates at the building’s summit, linking the building and the distant horizon of Parisian rooftops. This groundbreaking approach is built around a commitment to promoting biodiversity by striving to maintain continuity with neighboring green spaces. In total, 68 different plant species have been used in the building’s different landscapes. They ensure ecological continuity with the elements from neighboring green networks such as Billancourt Park or Meudon’s public forest. In addition, layered sections planted with trees, shrubs and herbaceous plants have been set up in order to help create habitats for local animal species, with 78 trees planted at the site.



Incorporating biodiversity for wellbeing (Newside, La Garenne Colombes)

With 35% of its plot covered by green spaces, representing a total of 1,850 sq.m, Newside, delivered in 2011, has further strengthened Gecina’s ambition for biodiversity. This building, designed by the architects Valode & Pistre, is the first in France to have been awarded triple HQE®, BREEAM and LEED certification. In addition to its energy performance levels, its vast open spaces looking out onto natural elements and its generous lighting reinforce the comfort and wellbeing of Technip’s employees in this building. The inclusion of details such as the living wall that can be seen from the meeting rooms on the first basement floor contribute towards this feeling. The green spaces, which cover 60% of the areas not built on, benefit from an eco-management approach, once again representing a significant step forward. This approach includes actions such as mulching soil areas, reducing water evaporation, or recovering clear water and storing it in a rainwater tank used primarily for the watering network.



Incorporating biodiversity for an entire district (Velum, La Buire district in Lyon)

The redevelopment of the La Buire district, at the heart of the Part Dieu sector (France’s second-largest business district after La Défense), highlights the impact of a city’s ambition in terms of architectural commitments by planners and developers. It also shows how Gecina has taken on board a number of best practices supporting urban biodiversity. From the start, this project, launched by the Greater Lyon Region in the early 2000s, set out its commitment to offering pleasant and attractive places to work and live for its new businesses and residents. It has achieved this through a city that combines its attractive, daring architecture with a high level of green spaces. When entrusting the Velum project to the architect Franck Hammoutène, Gecina focused on these two dimensions. Today, this building, which was delivered in 2013, offers majestic suspended gardens and a shadow garden at the heart of the block. These green elements help further strengthen the building’s image capital in relation to its users and neighboring residents. In total, 53 different plant species have been used. To limit their impact on natural resources, the gardens are equipped with tanks for storing rainwater, which is then used for watering as well as the restrooms. They also offer wet areas that are perfectly well suited to the development of plant species dependent on these environments.

Definition of Gecina’s biodiversity strategy

From Horizons to Newside and Velum, with the growing number of greening operations on new programs and the positive return on experience from the Beaugrenelle project, Gecina has drawn up a dedicated biodiversity strategy to guide its actions. When preparing this, it based its work on an approach carried out by Gondwana.

Jacob-Kaplan Park, La Buire district, Lyon (landscape designer: Raphia). CAUE du Rhône landscaped urban development award, 2008. Special public choice award in the first Grand Prix de l'Architecture, de l'Urbanisme et de l'Environnement du Rhône awards.



Mapping the portfolio: this first step aimed to assess the portfolio's positioning (259 buildings reviewed) in relation to interesting areas for biodiversity. The findings showed that 50% of the buildings assessed were located very close to such sites, including the Beaugrenelle shopping center, which is at the heart of an eco-corridor of national interest.

..... **Auditing to identify impacts:** the audit phase involved a detailed analysis of the positive and negative impacts of Gecina's portfolio in terms of biodiversity, looking at the architecture, the materials used, the layout and management of green spaces, as well as the range of plants used. This audit campaign (nine buildings selected, including two residential, five office and two healthcare buildings) helped identify the portfolio's dependencies in relation to biodiversity and ecosystemic services.

“ Identifying the portfolio's dependencies in relation to biodiversity and ecosystemic services.”

The information collected by Gondwana was then used to draw up some initial recommendations, such as using less smooth facades (making it easier for fauna or flora to become established), developing green roofs with a more diverse range of plants, minimizing light pollution and limiting the use of fully-impermeable surfaces contributing to the increase in artificial ground cover.

Meeting with stakeholders: alongside the audit phase, interviews were held with the various stakeholders, both internally (chairman's office, executive management team, Gecina Foundation, etc.) and externally (customers, suppliers, local municipalities, associations, scientists, certification bodies, etc.). The aim was to find out about how they viewed biodiversity and get their recommendations for how to take it into consideration more effectively. All this work revealed four biodiversity challenges for Gecina:

- Challenge 1: the integration of biodiversity is in line with societal expectations for nature in urban environments.
- Challenge 2: this approach helps anticipate new regulatory provisions for biodiversity.
- Challenge 3: to integrate biodiversity successfully, Gecina must be able to engage its partners and experts in this field, who will be able to develop innovative offers together.
- Challenge 4: to be effective, commitments need to be structured and then widely deployed across the whole portfolio in line with opportunities.

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Mapping out Gecina's biodiversity strategy

This “immersion” in Gecina's portfolio and the valuable exchanges established with stakeholders have been an essential source of inspiration when defining Gecina's biodiversity strategy. In addition to the four challenges, the new strategy focuses on three key areas and 10 commitments (see inset on page 23). The first focus area concerns the company, while the second targets the portfolio and the third looks at stakeholders. To evaluate this approach more effectively, various performance indicators have been defined for tracking the biodiversity performance of buildings. They facilitate comparisons between different buildings and position Gecina's approach within a drive for continuous improvements. The company's biodiversity strategy, operational since 2012, has been awarded SNB national biodiversity strategy status by the French Ministry for Ecology, Sustainable Development and Energy for the period from 2013 to 2015. Each year, a report is drawn up to assess the main progress made on each commitment.

Gecina's biodiversity strategy

3 focuses, 10 commitments

.....

Focus 1 – Company

Establishing biodiversity as an essential value within the company's responsible approach.

1. Incorporate biodiversity into Gecina's **responsible management system**.
2. Develop an **in-house culture** for biodiversity.
3. Set out Gecina's **commitment** to biodiversity.

Focus 2 – Portfolio

Developing and implementing innovative solutions to effectively manage the biodiversity footprint of Gecina's portfolio

4. Carry out an **ecological assessment** of sites with significant biodiversity stakes.
5. Intégrer la biodiversité dans la phase de **conception / construction**.
6. Incorporate biodiversity into the **operations phase**.
7. Incorporate biodiversity into the **renovation phase**.

Focus 3 – Stakeholders

Working with all of Gecina's stakeholders to preserve and enhance biodiversity.

8. **Build tenant and user awareness** of biodiversity and meet their expectations in this area.
9. **Engage with Gecina's partners** to take biodiversity into account.
10. **Work with stakeholders** in relation to biodiversity.



Newside, La Garenne-Colombes



The Garden Ouest project, in Montigny le Bretonneux (78), has worked to integrate the buildings within their direct environment.

Essentials

Engagement reconnu



STRATÉGIE NATIONALE POUR LA BIODIVERSITÉ

Gecina's biodiversity strategy has achieved SNB national biodiversity strategy recognition for 2013-2015.

When it discovered the City of Paris' biodiversity plan, Gecina immediately identified biodiversity as a major issue for leading municipalities and understood that its integration represented a response to a societal issue, but also a strategic differentiating factor.

Since the mid-2000s, Gecina has gradually incorporated various elements supporting biodiversity at the heart of its construction operations, with iconic programs such as Horizons (Boulogne-Billancourt), Newside (La Garenne Colombes) and Velum (Lyon).

Gecina's biodiversity strategy has been drawn up based on extensive work to audit its portfolio and exchanges with its main stakeholders. This tool provides a strong framework for the company's commitment.

Beaugrenelle center, an island of biodiversity in the heart of Paris

Designed before the definition of its biodiversity strategy, the Beaugrenelle* shopping center reflects Gecina's ambition to support the development of urban biodiversity in its new projects.

The new Beaugrenelle shopping center, designed by the architects Valode & Pistre, has successfully transformed a regulatory obligation into an asset for biodiversity. In 2004, the City of Paris introduced a biotope coefficient - promoting the greening of the city's buildings - into its local urban development plan (PLU). For all new builds, this plan requires property developers to deliver additional green areas, either on the ground, or on planted roof terraces or living walls. Paris, with 3,000 hectares of planted spaces, representing 5.8 sq.m per inhabitant, excluding the woods in Boulogne and Vincennes, has a relatively low level compared with Europe's other major cities. The average for Amsterdam is 36 sq.m, while London has 45 sq.m and Rome comes in at 321 sq.m. With 7,000 sq.m of green terraces, the largest in Paris, Beaugrenelle is fully in line with these specifications. This area even represents 10% of the overall target set by the capital for seven hectares of living roof space by 2020.

Targeting positive biodiversity

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“ **Beaugrenelle center, targeting positive biodiversity.** ”

From the project's launch, Gecina wanted the Beaugrenelle site to be particularly biodiversity-friendly. As Stéphane Carpier, Gecina's Technical Director, explains: “*The aim was not only to ensure that the species we put in place were able to live on this roof space, but also to make it a sufficiently hospitable environment so that as many other varieties as possible could colonize this space, clearly targeting positive biodiversity*”.

Improvements while the project was underway

As requested by Gecina, the consultancy Gondwana proposed various areas for improvement in 2011, while the project was already underway, enabling the specific biodiversity issues for the site and its environment to be taken into account more effectively. Indeed, the Beaugrenelle center is located on the banks of the River Seine, a major national eco-corridor, as well as close to Javel André Citroën park, the Champ-de-Mars and several major planted corridors. Gondwana's recommendations therefore focused on the development of local, diversified flora, with actions to support wild birds and pollinating insects with a view to restoring a sufficiently rich ecosystem to attract the entire food chain. After consulting with the landscape designer (Raphia), it was decided to improve the project's range of plants, which were previously limited to grasses, by including honeybee-friendly flowering plants to help support pollinating insects. To facilitate the reproduction and recolonization of flowering plants in the area, six beehives were set up. The operation worked perfectly because new varieties appeared on the roof in just a few months, including hollyhocks and poppies. Bug shelters were also set up to accelerate the colonization of pollinating insects. The results have been better than expected, with the gardeners from Parc André Citroën, a park over a kilometer away, reporting a significant increase in bee numbers since the green roof-terrace was put in place.

* Building sold by Gecina in 2014.

Factoring in birds

Through its location on the banks of the River Seine, the Beaugrenelle center is particularly hospitable for birds. In addition to the nesting boxes set up, work carried out jointly between the French association for the protection of birds (LPO) and Gondwana helped ensure that the building's exteriors are not likely to harm species. The vast glazed areas are covered with diamond-shaped silkscreen prints designed to attract the attention of birds that could be confused by the transparent facades.

Community garden for residents

While a large part of the Beaugrenelle center's roof space is still inaccessible, aiming in particular to preserve the space and tranquility for wildlife, as well as neighboring residents, 700 sq.m have been set aside for creating community gardens. Managed by the Espaces association, encouraging integration through urban ecology, this is an ideal space for raising awareness for school groups or residents from the neighboring community on biodiversity-related issues. They can also get involved in looking after the edible plants or flowers.

Ecological management of green spaces

The way in which the Beaugrenelle center's green spaces are managed is directly affected by taking biodiversity issues into account. As is the case now for Gecina's entire portfolio, the use of pesticides was forbidden as soon as this project was launched. The principle for upkeep is based on a free and effectively controlled approach. One single mowing is planned each year. This allows the landscapes to naturally evolve in line with the seasons. For the people living and working in the neighboring high towers, this bird's eye view of a suspended garden clearly contributes to their wellbeing, giving the building an intangible value.



Key figures



7,000 sq.m
of green roof space



40,000
plants planted



6
hives set up



700 sq.m
community garden

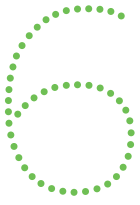


1
single mowing
each year



With 7,000 sq.m, Beaugrenelle has Paris' largest living roof and is an integral part of the capital's green and blue networks.





Ecologist: new perspectives for nature in cities

Meeting with Olivier Lemoine,
ecologist-engineer at Elan

Olivier Lemoine was one of the people behind the creation of the BiodiverCity® label, led by the international biodiversity and real estate council (CIBI). In this interview, he looks at the challenges with this new framework and his view of changes to his profession as an ecologist.



How does the BiodiverCity® label include nature in cities?

“The drive to reconquer “nature in urban environments” is based on three areas for action. The first, and the most important, aims to further strengthen the pools of nature by maintaining wild gardens and parks, reconquering natural urban spaces and putting in place a differentiated approach for managing green spaces, using fewer pesticides for instance. This approach has gradually been rolled out over the past 30 years by municipalities. The second aspect concerns green and blue networks, i.e. an urban development approach fostering connections between pools of nature on a large scale and aiming to enable the surrounding “peri-urbanity” to penetrate the heart of cities. This issue, which is much more recent, will increasingly concern urban planning documents, such as comprehensive regional development schemes (SCOT) and local urban development plans (PLU). BiodiverCity© covers a third urban approach that was previously neglected, with nature in built-up islands, where the environments may be less rich, but here we are talking about places where people come together and live each day (housing, offices, retail spaces, etc.), their “proximity” nature. Up until now, the approach basically considered that these areas were “anti-nature” because they were

built up. However, they have large roofs, complex facades, courtyards, balconies, ground floor areas where it is possible to envisage a bit of nature that is not just garden space. Ultimately, the BiodiverCity© label looks at the restored relationship between city dwellers and ordinary “proximity” nature. The documentary “Naturapolis, New York’s green revolution”, co-produced by Arte, highlights to what extent major contemporary cities are realigning themselves around this approach to nature in urban settings. After being seen as outdated just a few years ago, nature is becoming an element for “fashionable” cities in the 21st century. If tomorrow’s buildings follow this trend, it will be in the best interests of real estate firms to be ready, if only to address the matter of social demand and therefore the obsolescence of their portfolios”.

What does the BiodiverCity© label offer?

“ From an ecologist’s perspective, the label is the first tool that promotes the introduction of biodiversity issues into the designing and building process in particular, and for real estate in general. The labelling approach has two aspects. The first, focused on technical issues, provides a frame of reference for supporting the handling of this topic. The second is focused on recognition. The tool measures the level of engagement by project managers, which makes it easier to add value to operations that have taken biodiversity on board”.

.....

“ In cities, ecologists work on the relationship between human beings and nature where they live.”

How is BiodiverCity© impacting construction professionals and the general public?

“The frame of reference provides technical content for an issue that has a strong social resonance. For instance, the label changes the perspective for “green spaces” which, within buildings, have often been undervalued, reduced to their simple expression as a secondary issue and neglected in terms of utility projects. Nevertheless, the issue is extremely rewarding because it relates to the wellbeing of the building’s users. The framework explains and schedules these subjects. The label talks to architects about concrete ecology and very positive environmental amenities. It offers a framework for dialogue. It ensures perfect visibility for biodiversity issues and how they need to be approached. Above all, it offers this visibility at times when projects have not yet started to be built. This is a way of enabling people who are not experts in this area to understand things. Before BiodiverCity©, when talking about biodiversity, real estate professionals tended to simply develop equipment or put in place a beehive or green wall. The framework looks at all the issues, from all perspectives. It invites you to choose a “biodiversity commitment”. It ensures a new position for landscape designer architects. The label looks at the approach in its entirety, aiming to ensure consistency. It requires different professions to speak to one another, developing interaction between the building’s stakeholders, from project owners to project managers and the building’s future operators”.

Why was Gecina called on for this project?

“I heard about Gecina for the first time thanks to their Foundation. As part of my research into bug hotels, I discovered a project carried out by a leading association – the French association for insects and their environment (OPIE) – that included a plaque which said “Funded by the Gecina Foundation”. This was back in 2008. As an ecologist in the real estate sector, I said to myself that I simply had to meet the people who were funding this type of action. Gecina has a longstanding commitment in this area to support biodiversity. From the outset, its staff have sought to combine their knowledge with that of other companies from the industry involved in this area. This is how we came together to create the label. The CIBI, which is driving the BiodiverCity© initiative today, is fully behind this shared ambition. Its mission is to engage building stakeholders around innovative approaches relating to biodiversity in cities, working towards the goal of its label. Together, we do not expect to save the whole of nature around the planet. Our ambition is simply to offer quality of life for people in urban environments thanks to their proximity to the natural world, flora, wildlife and the seasons, from their doors and windows”.



How do you perceive the changes to your profession as an ecologist?

“ This profession is relatively old in France because it has existed since 1979 with the creation of the French ecologists association (AFIE). The main new development is linked to the fact that ecologists are also taking an interest in cities. While it is a new thing for our profession to talk about nature in cities, it is even more so to talk about biodiversity within the construction process. However, the ecologist profession is still a new profession, able to adapt its knowledge of the natural world, development factors for wildlife, for flora, and its systemic approach to sites and projects. Ecology researchers have worked on cities as ecosystems. In the construction sector, ecologists are working primarily to prepare the relationship between people and nature, in the places where they live. Today, we therefore find ourselves at the heart of cities developing missions with architects, landscape designers, naturalists, nature facilitators. As such, we have a certain mission to drive the transversal development of this new subject”.

How is this development reflected on a day-to-day basis?

“Previously, we were closer to natural habitats and resilient ecosystems (self-structured / wild). In the real estate sector, we are dealing with small neo-natural ecosystems made up of terraces, walls or gardens. Working as an urban ecologist is becoming more like being a gardener. We provide a new perception of green spaces. This is not only about carrying out preparations for substrata or plants, it is essential to think about facades, wildlife, the use of buildings and the cultural services provided by nature for instance. Above all, we look at the way in which future users will be faced with the natural world, where their children will be able to see plants grow, where they will observe their first frogs. Here, we are looking at the interface between people and nature”.

.....
“**As the focus on the relationship between people and nature grows, the role of ecologists will become more important.**”

What can an ecologist bring to a new project?

“The first thing we do is carry out a site review, in other words observing what there is around the site, because this will be the starting point for everything. The local climate and conditions are also particularly important for us. It is difficult to propose the same project in Marseille or Nantes as it is in Paris. Then, we look at the program itself. For projects, we apply the rules of scientific ecology and our knowledge of biotopes. We reintroduce various phenomena such as seasonality with buildings that show the changes of the seasons. We even take an interest in the species that could be detrimental for future users. These points, which are obvious for us, are far less so for architects or landscape designers, which forms the foundation for all the benefits of our relationships. I believe that the future looks bright for the ecologist profession for the simple reason that people do not know about scientific ecology and the way in which the most ordinary nature functions. As the focus on the relationship between people and nature grows, the role of ecologists will become more important”.

Case study, an urban ecologist

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On a recent operation in Paris to refurbish a six floor residential building with a large number of apartments around a vast internal courtyard, Olivier Lemoine made the project owner and its project manager more aware of ecological amenities by taking a concrete example. A couple of blackbirds (*turdus merula*) were nesting in the middle of the main courtyard, which had an old school charm and a small garden area. The blackbird, a common territorial species, has one of the most beautiful, harmonious songs, from March to September. Its singing in the morning and evening was particularly perceptible for all the people living around the courtyard. He pointed out that it would be interesting to keep these blackbirds, but this would have a direct impact on the choices to be made. For these birds' continued presence, they needed a tree, a small garden, a small lawn area, earthworms... The initial goal, slightly hedonistic, gradually transformed during the various discussions into a “biodiversity” goal for the new program, with a genuine openness to the issues involved with nature in the city for the building's residents.

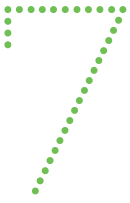


The BiodiverCity® label presents an instant snapshot of a building's biodiversity assets. Four criteria are evaluated, with performance levels rated from A to E (lowest level). To be awarded this label, a project must achieve at least one A rating and no E or D ratings. The "Excellent" level is reserved for projects that have been awarded at least three As and still have no Es or Ds.

The labelling process must be overseen by a CIBI-approved ecologist, who will assess the compliance of the approach adopted. Once completed, the assessment report will be reviewed by an independent auditor - Deloitte - whose audit report is submitted to the CIBI board of directors, which is exclusively authorized to approve BiodiverCity® certification.

BiodiverCity®: giving the industry fresh impetus

From the moment it made its first commitment, Gecina realized that its actions needed to be integrated within a dynamic collective process to help drive changes in behaviors. One example is the International Biodiversity and Real Estate Council (CIBI), in which it is a founding member. This organization aims to promote urban biodiversity in the construction and real estate sector, while helping raise public awareness. It is made up of six sections, each led by a founding director: planning organizations, property developers, construction firms (Bouygues Construction); biodiversity-related associations (LPO); public institutions and municipalities (Caisse des Dépôts); real estate firms, investors and lessors (Gecina); engineering firms, architects and businesses involved in biodiversity-related services and processes (Les Jardins de Gally and Elan); property managers and users (Bolloré Logistics). To encourage and promote the integration of biodiversity in projects with all stakeholders across the industry, the CIBI has developed the BiodiverCity® label. Just like an energy rating label, it assesses and presents the ecological performance of buildings. In addition to the qualitative biodiversity of buildings, this tool promotes the ambition set out with this approach and its various aspects (engaging with stakeholders, relevance of commitments in line with the site's features, operation's biological potential, ecological services provided by biodiversity for users or neighboring residents such as views, sounds of nature and cultural values, etc.). 55 Amsterdam, a Haussmann-era office building in Paris' 8th arrondissement, is currently being renovated and is the first of Gecina's assets to receive this BiodiverCity® label out of seven pilot projects included in this labeling cycle. "All our new programs will now include BiodiverCity®", confirms Stéphane Carpier.



Taking action together: Company Foundation supporting biodiversity

Throughout the year, Gecina moves forward with its commitments on the ground to support biodiversity alongside national organizations or associations. Many actions are based on the personal dedication of employees, particularly through Gecina's Foundation.



In September 2014, as part of an action supported by Gecina's Foundation, a dozen staff visited Lilleau des Niges, the largest bird reserve on Ile de Ré, managed by the LPO.

Gecina has been supporting biodiversity-related projects for many years and has defined a clear framework for its actions focusing on two specific areas. If subjects concern Gecina's portfolio, projects are funded by the company. If they concern community interest initiatives, they are funded by its company foundation.

Gecina Foundation

.....
“ *The Gecina Foundation supports actions relating to disability and the environment.* ”

Created in 2008, Gecina's Foundation covers two issues that are treated with the same importance: disability (in all its forms) and the environment. Environmental issues have immediately benefited from a dynamic level of support thanks to the

partnerships established with national-level institutional stakeholders: the French coastal heritage association (Conservatoire du Littoral) and the national forestry office (Office National des Forêts). One of the first projects led by the Foundation has been to support research from 2009 by the national forestry office and the French association for insects and their environment (OPIE) to monitor wild pollinators (such as bumblebees).



Building innovative customer relationships through biodiversity

The Foundation's actions are raising biodiversity awareness among customers, across all property types. In 2012, a community garden project was developed in association with the Centre d'animation Montparnasse community center in Paris' 14th arrondissement. This offered opportunities for students living in a Campuséa residence nearby to get directly involved in the project with a view to improving the living environment and further strengthening community ties.

Innovative actions

Certain initiatives supported by the Foundation promote various aspects of biodiversity that may not be well known, but are advocated by Gecina, such as how nature can contribute to patient wellbeing. In 2014, it therefore supported the association Jardin Art et Soins by sponsoring the psychiatric unit's support program at the Institut Mutualiste Montsouris (Paris 14th). The aim was to improve the living environment for teenage hospital patients suffering from severe depression or anorexia by creating a "treatment garden". Inaugurated in July 2014, this space represents a real haven of freedom and facilitates the recovery of these patients, who notably regain the concept of time through a space for activities and meetings.

Community commitment by employees

.....
“ Each project funded by the Foundation must be led by an employee, who becomes the initiative's sponsor. ”

The Foundation works with one simple rule: each project must be sponsored by a Gecina employee who leads the presentation of the project to the Board of Directors and oversees day-to-day relations with the association once funding has been awarded, assessing the project and promoting it with their colleagues. *“I am passionate about nature and ornithology and a longstanding member of the French association for the protection of birds or LPO”*, explains Nicolas Coiffait, Head of Corporate Communications. *“When the head of our Foundation informed me that she had been contacted by this association, I immediately decided to look into this and submit a proposal”*. As a result, the “BiodiverCité” partnership agreement was signed in 2011, based on two sections. The first led to the publication of a technical handbook, aiming to improve the integration of biodiversity in the real estate sector, and this is now proposed to all construction operators nationally. The second section

involved funding a program to support peregrine falcons in urban environments and particularly Paris, as part of a vast project covering the whole country.

Raising staff awareness in the field

For Gecina's Foundation, all these actions that are being supported represent outstanding opportunities to combine societal responsibility with raising staff awareness by offering concrete missions. Staff were able to visit the site and take part in observation sessions, duly kitted out with telescopes. As Nicolas Coiffait adds: *“In 2013, we were able to experience an exceptional moment with the first confirmed nesting of peregrine falcons at the heart of the capital, on Beaugrenelle's urban heating system tower, just a short distance from the new shopping center that Gecina was building at the time. We were able to invite staff to discover this iconic, yet discrete species”*.

Original company top-up system

When employees would like to head out into the field and get involved in an action to support biodiversity, Gecina offers an original system under which the company tops up the time spent. If employees spend two days on site, one day is covered by the company. This approach is generating growing levels of interest. In September 2014, a dozen staff visited Lilleau des Niges, the largest nature reserve on Ile de Ré, managed by the LPO. The operation involved setting up low mud walls, which can now be used as nesting islands by birds living in the marshes.



Since 2009, Gecina's Foundation, in partnership with the French national forestry office (ONF), has supported a conservation program for wild pollinators in public forests based on setting up bee hotels.

Long-term partnership with the LPO

Following the excellent return on experience from actions between the Gecina Foundation and the LPO, Gecina wanted to develop further projects together, focusing this time on issues relating to the company's business. The three-year agreement signed on April 4, 2013 includes plans for campaigns to regularly audit the portfolio, as well as the creation of a think-tank club to discuss and review issues relating to buildings and biodiversity.

AGIR pour la BIODIVERSITÉ

Urbanisme, bâti & Biodiversité

Accueil Présentation Biodiversité en ville Club U2B Observatoire

Actualités

Entretiens du Cerema « Territoires et villes durables » - Biennale de l'ingénierie territoriale du CNFPT
Publié le 16 janvier 2015
les 3 et 4 février 2015, le Cerema et le Centre national de la fonction publique territoriale (CNFPT) organisent les premiers Entretiens du Cerema « Territoires et villes durables » - Biennale de l'ingénierie territoriale du CNFPT au Palais des (...)

Du 3 au 5 décembre 2014 : Salon de l'immobilier d'entreprise au Palais des Congrès, Paris
Publié le 4 décembre 2014
Organisé par le Groupe Moniteur, le SIMI rassemble pendant trois jours près de 25 000 professionnels et 440 exposants représentant l'intégralité de l'offre immobilière et foncière et également l'ensemble des services associés à l'immobilier et (...)

The work of the new Club U2B think-tank, created by the LPO and in which Gecina is a founding member, will gradually be published on its website: urbanisme-bati-biodiversite.fr

Landmarks



€750,000

This is the minimum total for the Gecina Foundation's program over five years, with €150,000 of funding allocated for all its partners each year.

Essentials



Actions concerning Gecina's portfolio are funded by the company, while community interest initiatives are covered by the Foundation.



Gecina offers its employees an original system for topping up their time. If they spend two days on site for a project supported by the Foundation, one day is covered by the company.



Each action supported by the Foundation must be led by a sponsor, an employee of the company.

Identifying the portfolio's biodiversity stakes

Each year, four “Building and Biodiversity” audits are carried out on elements within Gecina’s portfolio. The aim is to improve knowledge of species living near the site in question and avoid any practices that might not be suited to this. Once again, employees have an essential role to play and the LPO wants to integrate them fully within this approach. “For each assessment”, explains Antoine Cadi, head of external relations and strategic development at the LPO, “we systematically debrief the team in charge of managing the building concerned. This report is proposed by our naturalist. This approach reflects our commitment to establishing a lasting relationship with Gecina and its employees, helping its internal culture to evolve”.

Think tanks to drive the review process

With Gecina Lab, the company already had a think tank promoting the sharing of biodiversity-related issues with stakeholders in line with its CSR strategy. The agreement with the LPO represents a further step forward, with the creation of a club for sharing expertise more widely. Launched on the LPO’s initiative, the Urbanisme, Bâti et Biodiversité (U2B) urban development, building and biodiversity club is a working group and think tank that brings together real estate stakeholders from the public and private sectors and their various activities. This work will facilitate the development of a forward-looking approach by sharing experiences and initiatives supporting biodiversity. The U2B club, in which Gecina is one of the founding members, meets four times a year.

Find out more



“Biodiversity and Building” technical handbook

This guide, comprising one main booklet and 18 technical fact sheets, is intended for building professionals (municipalities and social housing organizations, architects and design offices, civil engineering professionals, real estate companies) in order to better identify the stakes involved with biodiversity by providing them with original and innovative solutions. Developed jointly by the Isère branch of the LPO and the Isère architecture, urban planning and environment council (CAUE) in 2012, it has received funding from Gecina’s Foundation, Grenoble-Alpes Métropole and the Nature & Découvertes Foundation. For Gecina’s teams, it has highlighted the close links between the portfolio and biodiversity.



“Biodiversity & Districts” guide

This guide, created in 2014 by the Refuges LPO program, with funding from Gecina’s Foundation and the Ministry for Ecology, Sustainable Development and Energy, offers concrete tools for protecting nature across an entire district for the stakeholders involved in the district’s planning or coordination, as well as the general public.

https://www.lpo.fr/images/actualites/2014/refuge/guide_biodiversite_et_quartiers.pdf



Sponsored by Gecina Lab, a series of conferences were held throughout 2014. During World Green Building Week, led by France GBC, a conference was organized with Gecina Lab on biodiversity.

LPO meeting the challenge of urban biodiversity

Interview with Allain Bougrain-Dubourg,
President of the French association for the protection of birds (LPO)

Created in 1912 to stop the massacre of Atlantic puffins on the Sept Iles archipelago in the Côte d'Armor region of France – adopting this marine bird as its emblem since then – the LPO takes action in three areas: protecting species, preserving spaces, and educating and raising awareness on the environment. Allain Bougrain-Dubourg looks at this charity's missions and the relationships it has developed with various companies, including Gecina.



How does the LPO benefit from working with businesses?

“Since being founded, our association has been working to support biodiversity with a focus on benefits for the public. Over the years, we have seen certain companies become agents for change through the ways in which they were taking biodiversity into account. Today, we are working to meet various challenges together with around 20 firms, including EDF, CEMEX, SITA, ERDF and Danone. We prefer to develop ambitious agreements focused on specific areas, setting out respective commitments that dovetail together. For instance, we are doing some quite exemplary work with Danone Eau France, which owns the Evian and Volvic brands, concerning the management of sites on the surface of impluviums above water tables, which the water is then pumped from. This is a way for them to guarantee the quality of the resource that their business is dependent on, while enabling us to test out new ways of engaging with businesses, local municipalities and farmers. The commitment made by businesses is redefining the way we handle our own commitment to supporting biodiversity: the LPO is constantly looking for new ways of taking action that are concrete, efficient and effective. Some companies provide solutions, funding or human resources”.

Which building-related stakeholders do you carry out actions with?

“A few years ago, we decided to look at nature in cities and urban biodiversity. We believed it was quite a logical step to take on this challenge with the municipalities, as well as the professionals who are building their districts, their buildings, and managing them over the long term. For instance, we are working with Gecina, Bouygues Construction, Vinci Construction, CDC Biodiversité, CEMEX, Union Nationale des Entreprises du Paysage and the French Ministry for Housing”.

How would you define your relationship with Gecina?

“We got to know one another through various projects supported by the Gecina Foundation. Then, we understood the benefits of working together to take environmental issues into account on projects to restore or build properties. Thanks to these tests, we were able to show, together, that there may be a cost involved with incorporating biodiversity, but the initial investment generates major benefits for the people who use these buildings. The next step was to share this expertise with Gecina’s construction partners or customers. Following on from this, we have developed the U2B Club and wanted to join the CIBI association, which has just launched the new BiodiverCity label”.

What are the next steps with Gecina?

“We have been working with its Foundation for more than five years and with the company itself for the past two years. It is important that we continue to move forward: we need to continue building on our mutual commitments in order to develop genuinely important actions for biodiversity, particularly in relation to external parties. For instance, I am thinking of companies that would like to become Gecina customers and would like to select sites in relation to their environmental qualities”.

How is the perception of Gecina’s commitment to biodiversity important?

.....
“We need to be able to count on organizations like Gecina, which, by trialing various projects, will open up new environmental rationales.”

“It is essential that Gecina’s actions are visible for its customers. Otherwise, we will have failed. Today, major architectural projects can quite quickly become stuck between the “concept architect” and the “elected official sponsoring” the project. We regularly see the limited flexibility available for stakeholders looking to adopt a stronger

focus on biodiversity...So we need to carry out work upstream. The specifications defined by the elected official must factor in this environmental ambition. Alongside this, it is essential to raise awareness among architects so that they can conceive and design buildings with an exemplary environmental approach. While we may sometimes be forced to act like whistleblowers, we want to be able to count on support from firms like Gecina, which, by trialing a certain number of projects, will embrace new rationales. One of the challenges is to demonstrate that, looking beyond the immediate additional cost at the time of the building’s construction or renovation, these initiatives offer benefits over the long term for the planet, and are profitable over the short term for the business, strengthening the appeal of its products (user wellbeing, quality of life, etc.). The real estate industry needs to take this step forward and I firmly believe that Gecina, through its strategic commitment to supporting biodiversity, combined with its leading position in the Paris Region, has various assets in place to help drive changes in behaviors”.

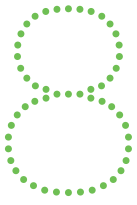
What role can Gecina’s employees play in these changes?

“Being able to count on the commitment by Gecina’s senior management team is essential, but not enough on its own. Each level throughout the company needs to gradually get involved. This is a genuine improvement process supported by training sessions and time set aside for sharing in order to analyze together what works – and what does not – and identify the possibilities for improving performance with the actions taken”.



La LPO, France’s leading association for the protection of nature

-
- Over 46,000 members
 - 5,000 active volunteers, engaged on the ground each day
 - Over 400 staff in LPO France and local LPO associations
 - 12 million euro annual budget
 - In France, LPO is the official partner of the BirdLife International network (120 representatives, nearly 2.8 million members worldwide)



Establishing a new shared ambition

The integration of biodiversity within Gecina's strategy reflects a growing requirement in terms of building, renovating and operating its portfolio. This is also combined with a clear commitment to sharing the benefits of its tests and its expertise with as many stakeholders as possible within the real estate industry.

One of the major pitfalls faced with a biodiversity approach is the temptation to ramp up the number of initiatives without incorporating them into an overall process. *“We very quickly realized the limitations involved with developing dispersed actions, such as the greening operations on Beaugrenelle's roof (Paris) or the creation of suspended gardens at the heart of the Vélum building (Lyon)”,* explains Stéphane Carpier, Gecina's Technical Director. *“The definition of a biodiversity strategy in 2012 clearly sets out our commitment to benefiting from an assessment of our entire portfolio and deploying value-creating approaches for our customers and assets that we could then adopt as standard practices, depending on their levels of interest”.*

Identifying sources of progress

From environmental to economic and social dimensions, the interactions between biodiversity and our activities are so vast that it is often difficult to understand them in their entirety, particularly all at once. Gecina focuses on test phases following which, if successful, best practices are rolled out across the board. *“In 2010, we embarked on the first HQE® In Use certification process for a building, with Portes de La Défense in Colombes”,* highlights Stéphane Carpier. *“Thanks to this work, we identified a number of elements from the standard framework that appeared to be very interesting in terms of preserving biodiversity. Looking to advance things, we therefore included them in the specifications for the invitations to tender we launched one year later for the management of our green spaces”.* As a result, all office buildings have benefited from an ecological management of their green spaces since 2011. Since 2012, this approach has been ramped up to cover residential buildings. It is based on zero pesticide use, sustainable weeding and the use of electric equipment in priority (reducing pollution and noise disturbance). All these elements are included in the HQE® frameworks.

Pioneering the deployment of the EcoJardin label

Created by Natureparif, the regional agency for nature and biodiversity in the Paris Region, the EcoJardin label aims to improve the diversity of plant and animal species at their host sites. It also encourages environmentally-friendly practices, while helping build user awareness of sustainable development and ecological issues. While 221 sites have now been awarded this label, Gecina was the first company to achieve it for its management of green spaces at the Résidence Saint-Charles building (Paris 15th). In 2014, Défense Ouest (Colombes) was awarded this same label – the first office building ever – thanks to a series of original initiatives, including the creation of flower meadows and an educational pathway set up to raise user awareness. *“We are particularly proud of these results”,* confirms Joanna Rebelo, technical project leader, *“because we have successfully developed our ambition alongside our customers, key accounts like EDF or Tetra Pak, who, after sometimes appearing to be reluctant, have got fully behind our approach, have made it their own, and even advocate it now”.*

The green spaces at Défense
 Ouest will benefit from sustainable
 management practices from 2015.



Testing out the WELL label with the Well Building Standard®

Alongside the BiodiverCity® label, the new Well standard has really stood out for Gecina's teams. Why? Because it covers a building's intangible value, evaluating various aspects such as the wellbeing provided for its occupants, a key element for ensuring the performance and efficiency of employees. With this in mind, the Well standard looks at the capacity of architectural green spaces to take into consideration biophilia, i.e. our instinctive affinity for the living world and natural systems. During the latest GreenBuild event, the major international conference held each year by the World Green Building Council (WGBC), which is working for the development of sustainable construction, during two conferences Google demonstrated the importance of biophilia for the performance and quality of work achieved by its teams and it has made this a key criterion for the quality layout of a building in its portfolio. Launched in October 2014, the standard has already been adopted to build 500,000 sq.m worldwide. Gecina wanted to analyze its application with the renovation of 55 Amsterdam. This unique project is targeting triple certification, with the highest performance levels each time: HQE® Exceptionnel, BREEAM Outstanding and LEED Platinum. It is also aiming for the Effinergie and BiodiverCity® labels. *“By seeking out labels and certificates, this is giving a framework for our action”,* explains Joanna Rebelo. *“Thanks to these steps, our teams feel more engaged and our tenants are always satisfied to receive an objective assessment. In addition, we benefit from our actions creating value over time and what we want to demonstrate is precisely that our buildings have greater value on the market by taking biodiversity on board”.*

“ All our new office programs will now include the BiodiverCity® label. ”

Essentials

- Gecina is developing a testing-based strategy (labels, certificates, innovative projects) helping identify best practices for biodiversity. The best performing practices are then rolled out across its portfolio in line with opportunities. The return on experience is shared with stakeholders from the industry.
- BiodiverCity®, led by the international biodiversity and real estate council (CIBI), in which Gecina is a founding member, is the only label focused exclusively on biodiversity.
- The new Well label assesses the concepts of user wellbeing and a building's intangible value.

Sharing knowledge

One of Gecina's ambitions is to be able to compare its test experiences with those of other operators from the industry, and even to carry out projects together in line with a co-construction approach. For instance, the company is a founding member of Club U2B, the urban development, building and biodiversity think tank launched by the French association for the protection of birds (LPO), alongside other major players such as Bouygues Construction, Aquitaine Regional Council and the Stade de France Consortium. Gecina is also taking part in projects with more of a forward-looking focus. One example concerns the research carried out as part of the “Végétalisations Innovantes” innovative greening call for project proposals by Paris Région

.....
“ **Through the labels, we want to demonstrate that our buildings have greater value on the market by taking biodiversity on board.** ”

Beaugrenelle (Paris 15th), Banville (Paris 17th), Gecina’s head office (Paris 2nd), Horizons (Boulogne-Billancourt) and Newside (La Garenne-Colombes), as well as the Blomet and Saint-Charles residential buildings (Paris 15th). This initiative aims to identify the ecological, sociological and economic benefits of greening actions, as well as considering various points for improvement so that the industry as a

Lab. For Gecina, accompanied by longstanding partners (LPO, GoodWill Management, Jardins de Gally, Noé Conservation, Gondwana), the aim is to monitor the life and ageing of the living walls and roofs in its portfolio from 2013 to 2016. The buildings studied are Anthos (Boulogne-Billancourt),

whole can benefit from the return on this experience. Steering committee meetings are held every quarter and bring together representatives from Paris City Hall’s green spaces and environment department, Paris Habitat, Agence d’Écologie Urbaine and the Observatoire Parisien de la Biodiversité.



As part of a vast project led by Paris Région Lab on innovative greening practices, Gecina is carrying out a review of the life and ageing of living walls and roofs on the roof of Anthos in Boulogne-Billancourt.



The St Charles residence (Paris 15th) is EcoJardin certified and offers a range of educational and informative tools for its tenant customers.

New Well Building Standard® certification Incorporating wellbeing from the design phase

Meeting with Hervé Moal,
Head of Development and Innovation, ARP-Astrance.



“The Well Building Standard®, developed by Delos Living, working closely with the US Green Building Council, evaluates a building’s performance around seven target areas; four relatively conventional criteria (air, water, light, comfort) and three quite new criteria (nourishment at the workplace, fitness and mind, building’s contributions to various aspects including creativity, concentration and stress management). This approach is proving to be particularly interesting

because the real performance measurements that lead to the label being awarded are carried out after the building has been in operation for three months. This standard is facilitating the development of collaborative engineering between the various stakeholders involved (project owners, project managers, providers, occupants, building’s future operators, etc.). It showcases the approach adopted by companies like Gecina by offering a scorecard for work with occupants, focusing on essential concepts such as the location’s impact on employee wellbeing and therefore their future performance. It factors in the impact of biodiversity with the Mind target”.

Insights

Building and Biodiversity, 29th initiative from the Plan Bâtiment Durable

Interview with Philippe Pelletier, Plan Bâtiment Durable President

The Plan Bâtiment Durable sustainable building plan has just launched a new initiative - "Building and Biodiversity" - copiloted by Gecina. Philippe Pelletier, its President, looks at the challenges for the industry in this area.



Why have you chosen this focus on biodiversity?

"Following on from energy-related issues, the idea gradually developed to look at environmental aspects. The issue of biodiversity has recently emerged among them. The working group's first step is to identify particularly exemplary initiatives in France, as well as elsewhere around the world, which will then help drive exchanges within the industry".

Why has Gecina been chosen as a copilot for this initiative?

"Gecina is a pioneer in this field. For me, it seemed a natural step to ask them to share the areas for progress that they have identified and then implemented. The company has always shown itself to be innovative, particularly by considering its tenants as customers very early on and measuring their satisfaction. From an energy perspective, it is also developing an ambitious program to manage consumption levels effectively. Today, Gecina's commitment to supporting biodiversity is part of a logical progression. It reflects not only the link between a physical building and the natural world, but also all the care taken to ensure the wellbeing of its occupants".

Do you believe that the industry is sufficiently aware of biodiversity issues?

.....
“**The metamorphosis of buildings will change how they are designed and operated.**”

“No, but there is no reason to be concerned about this. All together, we are discovering new approaches that are quite complex. We are moving from an approach based around the building’s value in use - accommodating

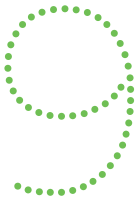
people - to an experience-based approach - a space providing wellbeing and interacting fully with the environment. Certain observers talk about the concept of the “metamorphosis of buildings”, with far-reaching changes in how they are designed and operated, increasingly integrating their occupant’s vision. Certain companies, which are further ahead than others, will show the way forward and society will gradually change its perception of buildings by repositioning them within the cycle of life. The industry seems very interested, but all this will take time. Dialogue between owners and occupants, which lays the foundations for Gecina’s business, covers only 30% of assets. Today, 70% of office buildings are occupied by their owners. It is not certain that the issue of biodiversity is a priority for them”.

Is adding value to assets a decisive issue?

“Some countries, which are more mature than France in this area, have clearly characterized the green value concept. Various studies show that an energy-efficient asset with a low environmental footprint has higher market and rental values. These stronger values are linked to the building’s intrinsic performance, as well as the signature of its occupants. If major companies systematically prefer virtuous buildings, it is clear that other buildings will gradually depreciate and ultimately lose all their value. For a real estate company, there is therefore a major challenge to ensure the long-term viability of its properties. As a result, the issue of adding value to assets is particularly decisive”.

..... “Building and Biodiversity” initiative launched

December 2014 saw the launch of the Building and Biodiversity working group in connection with the Plan Bâtiment Durable sustainable building plan, chaired by Philippe Pelletier. The latter has appointed three copilots: Ingrid Nappi-Choulet (Professor at Essec Business School, Sustainable Development and Real Estate Chair Holder), Thibaud Gagneux (Sustainable Development Officer at Poste Immo, Chairman of Synergiz) and Yves Dieulesaint (Head of CSR at Gecina). The aim is to promote the importance of this issue with all stakeholders across the construction, real estate and energy sectors, while mapping the various approaches looking at the links between buildings and biodiversity. For Gecina, this recognizes its achievements, while also sending out a strong message about the public authorities’ ambition, consolidating its strategic ambition.



Engaging agents for change with a new perspective on biodiversity

While biodiversity, along with the climate, is one of the areas to be worked on as part of the United Nations program, this subject is still poorly understood in many cases or even enigmatic for many people. For Gecina, ensuring that actions are able to succeed means gradually raising awareness among customers and employees, as well as providers.

One of Gecina's strengths in terms of its commitment to biodiversity is its realistic perception of the long road that still lies ahead. The labels, certificates and awards achieved all recognize the actions taken, but their success is still frequently fraught with obstacles. How can they be overcome? By convincing stakeholders who initially have little knowledge and may sometimes be reluctant, but who, as the months go by, generally turn out to be excellent ambassadors!

Raising customer awareness

In this initial phase of growing awareness on biodiversity, it is essential to get customers on board for the approach. Somewhat surprisingly, the first step is to convince Gecina's providers, such as its garden maintenance firms and landscape designers, as well as its architects. Once this work is accomplished, the second step is to promote the benefits of this approach in relation to customers and their staff. Once again, this ambition is shared with a prior demonstration of the relevance of the solutions proposed through concrete actions. The green spaces at Défense Ouest (Colombes) have been able to be transformed into flower meadows – boosting the development of plant or animal species in urban environments – thanks in particular to the hives set up beforehand. They highlighted the need for bees to have a favorable environment, whereas frequently mown grassy areas failed to provide this. Now, when the occupants of Défense Ouest look out on this wilder area, they do not see a poorly maintained area, but instead a site that is ideal for bees to flourish, and they are even able to enjoy their honey each year. To achieve this result, which seems obvious for everyone today, various initiatives needed to be organized, such as educational pathways, which are still having great success.

Convincing through simple steps

Gecina's initiatives to support biodiversity rarely come from customers themselves. Recently, the courtyard of a building at 3 rue Caumartin in Paris was redeveloped with quite a light level of plant cover, transforming this passageway into a living space. Won over by this operation, customers have praised this initiative as a genuine source of wellbeing for their employees. They are now probably more sensitive to the importance of their employees' connection with elements from the natural world, even if they are in the heart of the city. This very simple action, which was quick to implement, is helping build awareness of the importance of urban biodiversity.



Explaining to progress together

The latest tenders issued by Gecina for the management of its green spaces highlight the importance of its commitment alongside its suppliers. One of the conditions set was manual weeding. Just a few years ago, such a request would have significantly increased the cost of the services. Based on better knowledge of the company's requirements, suppliers have now incorporated this item into their business model. Biodiversity is a fully integral part of Gecina's responsible procurement policy. It highlights how suppliers and the company are closely dependent on one another. As Stéphane Carpier, Technical Director, explains: "We are dependent on our providers and they also depend on us. We therefore have a duty to educate and inform them, while they have a duty to provide us with advice. It is essential that we continue to constantly nurture these close relationships to ensure that they last. While we keep a very close eye on the costs of course, we do not simply look for the cheapest option. Instead, we choose the provider that will be able to add most value for the company and our customers, while respecting our societal commitments".

Building awareness far upstream

The quality of Gecina's projects clearly concerns its ability to raise awareness levels among its "indirect" suppliers, such as manufacturers of bio-sourced materials (derived from plant or animal biomass), directly influencing "gray" biodiversity (invisible, because located upstream from the building's production cycle). Even if contracts are set up through tenders involving other firms (e.g. fitters), these manufacturers must be able to identify the environmental

performance of their products as a key differentiating factor and therefore a way for them to open up new projects with Gecina.

Bringing Gecina's teams on board

..... • What about the final target to convince?

“ Building the influence of the expertise gained within the company and enabling the widespread adoption of best practices.”

For Gecina's teams, biodiversity is also a new issue, but they are now being driven forward by the commitment shown by the executive leadership team and the many concrete results achieved. Gecina's Foundation is also an outstanding way of helping them become aware of

biodiversity and its impacts on the real estate business. What about the next challenge? Building the influence of the expertise gained within the company and enabling the widespread adoption of best practices in the field, supporting the independence of the technical teams involved. "It is a bit like with IT a few years ago", concludes Joanna Rebelo, technical project leader. "At the very beginning, experts were needed to support staff. Now, everyone is a bit like an IT professional and able to use their applications independently".



Essentials

- Before carrying out new operations to support biodiversity, Gecina needs to develop actions to raise awareness among its customers and providers in order to get them on board.
- Once they have been made more aware, customers very often advocate the benefits of integrating biodiversity elements into their day-to-day environments. For their part, the best-performing providers adopt the best practices developed and value them as commercial differentiating factors.
- The success of Gecina's biodiversity strategy is built around its teams' engagement and their ability to follow up on actions developed by pilot teams and lead them by themselves (site greening, installation of hives, educational pathways, special events, etc.).

Learning with bees

Meeting with Nicolas Géant,
beekeeper, founder of Beeopic

Based on the observation that city bees were thriving more than field bees, Nicolas Géant had an idea to set up hives in the heart of Paris, on the roofs of the Grand Palais. Since then, his firm Beeopic has enjoyed great success with leading companies such as BNP Paribas, Louis Vuitton, the Palais des Congrès and... Gecina.



Why are companies setting up hives?

“Requests tend to come from two sources. The first concerns restaurants or hotels that would like to have their own honey (Bristol, Tour d’argent). The second source is requests from companies that will use this action to develop operations aimed at raising awareness among their employees or customers. Externally, this represents an excellent way of validating the implementation of their CSR strategy through concrete actions. A certain window-dressing aspect does exist, but it is limited. The companies that sign up to this approach are genuinely engaged in sustainable development. And the applications can be very original. For instance, Bouygues Ile-de-France systematically sets up a hive on each of its worksites in order to regularly analyze pollutants”.

How do bees cope in cities?

“People often still have a very outdated view of polluted cities and flowering areas of countryside. Today, many widescale pollution factors have been moved to the countryside or remote locations. Cities are home to significant levels of biodiversity thanks to the many trees along their avenues, flowers on the balconies of their apartments or even their public gardens. With all this rich vegetation, bees are able to feed properly and we can produce three times more honey in cities than in areas of farmland. City bees are definitely doing better than country bees.”

How do people react to the hives?

“We always explain to employees the reasons why hives are being set up, while highlighting their potential dangers. In this context, we organize numerous events when we answer the many different questions people may have. Often, we meet them on their way out of their company restaurant. This is a unique opportunity for us to explain to them that they were able to eat cucumbers for their starter, carrots for their side dish and pears for their dessert thanks to bees and their pollination services. These exchanges represent a real opening up to biodiversity. People then pay much more attention. They get a sense for the different seasons again thanks to the seasonality of the bees’ rhythms, with reflexes that may get lost due to the influence of factors such as the constant temperature offered by air conditioning or heating. These actions are of course just a drop in the ocean, but if everyone adds their own little drop of water, the planet will be in better shape for the humans living on it”.

How do employees react when they taste their honey?

“Three things are needed to produce honey: bees, sunshine and flowers. So the result will be different each year. The main flowers in Paris are acacias, chestnut, lime and pagoda trees...so many different flavors to identify. People are always very surprised and quite proud when they discover the harvest. They take the time to look at the honey and taste it, trying to identify the different flavors. Meetings with employees are often unique moments. One of our customers, a logistics warehouse manager, recently invited 280 employees to get involved in putting the honey into jars. 267 people came along simply because they walk in front of the hives each day!”.

How do you see Gecina’s commitment?

Unlike companies that proclaim their commitment to sustainable development without actually doing much, Gecina talks a lot about biodiversity and carries out a lot of actions. Gecina is committed to biodiversity and is driving this issue forward with a genuine open mind for new initiatives”.

How can Gecina go even further in its initiative with Beeopic?

“I am thinking about setting up hives in their portfolio of healthcare facilities and student residences. We already work with various clinics and nursing homes. The hives help elderly people, often affected by Alzheimer’s, to learn the seasons again. The hive becomes a regular focus for walks when they will be connected to real life. In terms of student residences, the idea could be to set up community hives, in the same way as the community gardens, managed by the building’s residents. Each year, the harvest would be a great opportunity to build biodiversity awareness among the younger generations during the honey harvest.”

Gecina’s commitment is promoting employment

The growth in the number of Gecina’s hives, from 10 in 2012 to 21 at the end of 2014 across 10 sites, has made it possible to create a permanent position. Nathalie Pot, who was previously looking for work, has just been employed and trained as a beekeeper by Beeopic.



30 Kg

This is the average annual production of a hive of domestic bees (wild bees do not produce honey), with around 120 jars of honey distributed to employees or customers. Gecina harvests its own honey from hives on the roof of its headquarters.





Biodiversity, value for the future, societal and strategic value for Gecina

Following various trial phases, Gecina's commitment to biodiversity is now a strategic driving force for its development, with three requirements: providing value for the environment, for customers and of course...for the business.

Today, a real estate company's biodiversity approach involves two facets. The first is simply to take on board the irreversible trend for increasingly strong regulations. The second aims to harness biodiversity as a strategic enabler, combining a societal and an economic ambition.

Increasingly demanding legislation

By establishing the concept of green and blue networks, the Grenelle de l'Environnement initiative has had a direct impact on the entire construction industry. Indeed, public policymakers have made it necessary for all regional municipalities (cities, district communities, etc.) to incorporate these green and blue network elements into their urban planning documents (local urban development plans (PLU), comprehensive regional development schemes (SCOT), etc.) by the end of 2015 at the latest. They will increasingly be asking developers, including real estate companies, to demonstrate that local biodiversity issues have been effectively integrated into their projects, with the risk of seeing their building permit applications rejected.

New framework law for biodiversity

The proposed new framework law for biodiversity introduces the fundamental concept of ordinary biodiversity. The French nature protection act (Loi de protection de la nature) of 1976, which set the benchmark up until now, focused exclusively on protected species and habitats. From now on, the law will recognize all habitats and species that play an essential role in the ecological functioning of biodiversity. It perfectly integrates the green and blue network concepts and gives them a new perspective. If a project involves risks of impacting this ordinary biodiversity, when it performs an essential role enabling ecosystems to function well, it will need to either "avoid" doing so, or "reduce" its negative effects, or "offset" its residual impacts. The constraints faced by the construction industry are becoming significant, because the European directive on environmental liability for businesses has already expanded the scope for taking biodiversity elements into consideration to include all operators. Rather than being restricted to contracting authorities for major projects, such as the development of sections of motorways, this now concerns all businesses looking to develop construction projects. All economic sectors are potentially concerned.

Biodiversity as an asset

.....
“ **Gecina is now looking to accelerate its biodiversity commitments.** ”

The green and blue network principles and this future framework law on biodiversity, which is expected to be passed in 2015, are going to make all businesses more aware of these new issues, whether they want to or not.

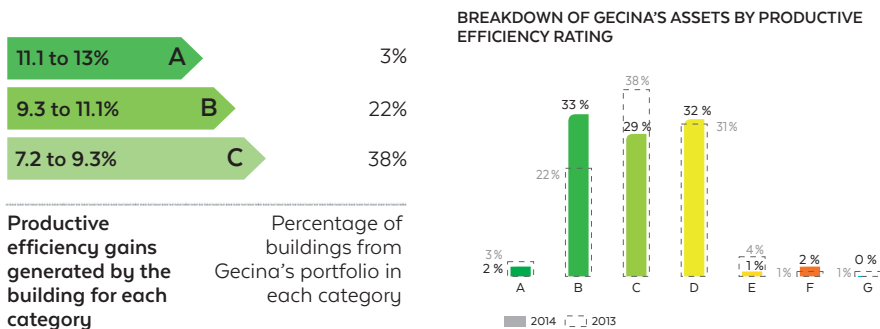
The most virtuous firms have already taken on board the fact that it is in their best interests to fully understand their interactions with biodiversity, particularly in terms of dependencies on ecosystemic services. The aim is to look at how they can be preserved, as well as transforming them into strategic assets to drive growth. This is precisely the option chosen by Gecina, which notably goes even further by analyzing how biodiversity contributes towards the intangible value of real estate assets.

Biodiversity's intangible benefits

Gecina has been developing a research and development approach for several years with a view to analyzing its portfolio's intangible value. "Ultimately, this concept is linked to corporate finance", explains Alan Fustec, chairman of Goodwill Management, a consultancy that is advising Gecina on this approach. "It involves analyzing all the assets of a business that cannot be found in its accounts, such as its brands, its human capital or its know-how. We have been able to demonstrate that these "soft" resources represent a higher value than the balance sheet itself. In addition, our work with Gecina revealed that this intangible value can also be found in buildings. For a 10 million euro investment, depending on the human intelligence brought on board, this building may be worth 8, 12 or...15 million euros. Employees work better in a building that is well designed, which naturally gives it value". The frame of reference developed looks at five main categories: physical wellbeing, motivation, time wasted in the building, ease of access and occupant peace of mind. To assess this last point, various elements are analyzed such as the quality of external views and the proximity of natural spaces. "Our work found that a building's overall productive efficiency was dependent as much on its intrinsic characteristics as its location. Indeed, a perfectly designed building, even in a remote location, will deliver similar performance levels in terms of its human capital to a building that is in a much better location, but less well thought out. While it is still key, this does put the location concept into perspective". All the research carried out shows that an office building's intangible value depends on five parameters: technical performance, functional performance, location, aesthetics and...biodiversity. The research conducted for Gecina proposes a valuation and therefore a financial quantification of the first four aspects. For the fifth point, the approach turns out to be more delicate due to the number of elements and interactions to be factored in. By being able to better understand these elements, Gecina can guide this value creation by incorporating users and their needs into the specifications for new projects very early on. Indeed, Gecina is interested in this concept because it has a direct impact on the performance of buildings' users, the operational results of its customers and the specific value of its portfolio.

Showcasing a building's productivity

In total, 74 buildings – representing 86% of the scope for buildings in operation, delivered or acquired – have been studied. The results are presented with a productivity labelling system, similar to the environmental rating approach, with seven categories from A (best-performing) to G. Category A corresponds to



Similar to the environmental rating approach, Gecina highlights the productive efficiency of its office buildings with labels.

.....
“ A perfectly designed building, even in a remote location, will deliver similar performance levels in terms of its human capital to a building that is in a much better location, but less well thought out.”

a productive efficiency gain of 11.1% to 13%, with 0% to 1.8% for Category G (see box opposite). This analysis reveals that 65% of the buildings are rated A to C, with productive efficiency gains of over 7%, generating major economic gains for the businesses working out of these offices. While biodiversity is not the only favorable element, it is one of the contributing factors behind the general performance levels achieved. This portfolio map is now updated every year. 2015 will see this approach stepped up by developing measures with occupants. "We are going to move from a modelled quantitative approach to a qualitative approach measured on the ground. Up until now, when we analyzed the impact of noise on productivity for instance, we based ourselves on the most reliable assessments available, determined from a series of academic publications. The on-site approach is going to help improve the accuracy of the results, built around a genuine commitment to drive progress for everyone involved".

Biodiversity is becoming essential

Considering the various stakes identified, biodiversity is now systematically incorporated into all new construction projects launched by Gecina. Following a learning phase, characterized by several greening operations, the company is now working within a global approach to biodiversity on iconic projects like 55 Amsterdam in



Paris' 8th arrondissement. This drive for excellence is having an impact on three dimensions that interact with one another: stronger integration of programs within their environment, targeting positive biodiversity when possible, stronger value-in-use for occupants and stronger intangible value for buildings, supporting growth for Gecina.

Laying foundations with the 55 Amsterdam project

The renovation of 55 Amsterdam marks a major step forward for Gecina. This is the first project to incorporate all the dimensions of its commitment to biodiversity. The context for this work is particularly interesting because this Haussmann-era building is located in Paris' 8th arrondissement, in a dense urban environment with few green spaces nearby. In line with the methodology for all new projects, an ecologist was brought in very far upstream from the operation to identify the local issues and stakes. This ecologist worked closely with a landscape architect, aiming to improve the site's biotope area factor (BAF). Their work together is reflected in the creation of green spaces representing real elements of ecological continuity for the various target species identified, such as birds and bats. Following the recommendations made by the French association for the protection of birds, several features have been included to welcome the capital's target fauna, such as nesting boxes for sparrows and swifts, as well as bug hotels. This building of over 12,200 sq.m will have green terraces and roofs and an accessible patio. The range of plants selected is based primarily on indigenous plants that are native to the Paris Region, as recommended by the City of Paris' department in charge of green spaces and the environment. For this new program, which will be delivered in 2016, Gecina has taken particular care to select eco-sourced materials, including 6,000 sq.m of wood wool used for internal insulation. With all the stakeholders rallied together to take biodiversity issues into account, the existing site's ecological value has been raised from 16 to an ecological potential of 101 for the project. Occupant wellbeing, driving productive efficiency, has been one of the key factors behind this project's definition. Comfort levels benefit from an optimum management approach thanks to the building's effective control system (real-time monitoring of temperature and consumption levels). People will also be able to access sustainably maintained

green spaces (no pesticides, composting of green waste, use of compost, etc.). All these initiatives are reflected in an objective for triple certification. Indeed, 55 Amsterdam is aiming for HQE[®] Exceptionnel, BREEAM Outstanding and LEED[®] Platinum, as well as the Effinergie and BiodiverCity[®] labels.

Increasingly innovative initiatives

From new projects to new programs, Gecina is now looking to accelerate its commitments. For instance, the company is rolling out a "green restaurant" principle for its intercompany restaurants. This concept aims to improve the meals served, as well as offering a better selection of raw materials by giving priority to production and marketing methods that respect the environment and growers. This is a major challenge because on average, between the farming, transportation and processing of food products, it takes the equivalent of six barrels of oil to produce one barrel of food. The aim is to work towards an average impact of 1.75 kg of CO2 per meal, giving an average

reduction of 25%. The tenders issued define the level of standards demanded through contractual commitments, such as organizing seasonal supplies or minimizing air-freighted products. With an original approach, continuing to build on Gecina's goal to raise awareness among its stakeholders, restaurant operators will need to propose a fun and attractive communications plan for sharing educational messages about nutrition. There are also plans for measures to limit energy and water consumption levels. With a new program, the "seafood charter" formally sets out Gecina's commitment to responsible purchasing. It limits the selection of fragile species or produce from unsustainable fishing practices. All these initiatives, which are innovative and above all far removed from any "gimmicky" aspects, are centered around an objective for excellence that is shared increasingly widely with all providers and partners.

Two exemplary new projects highlighting Gecina's commitment



Velizy Way - Vélizy (92)

This compact project for 15,000 sq.m of offices maximizes the level of green spaces freed up on the plot. Regional wildlife is able to benefit from the different landscape atmospheres and ecological environments laid out. The eco-pond, home to aquatic fauna and flora, represents an outstanding pool of biodiversity.



Garden Ouest - Montigny-le-Bretonneux (78)

This vast project for 36,500 sq.m of office space offers plots that are greened over at least 50% of their space. The layout offers several types of natural environments intended to enhance the site's biodiversity and preserve ecological continuity: open environments (meadows), cool environments (patios), environments for wild and spontaneous plants and transition environments (verges).

Essentials

- The proposed new framework law for biodiversity introduces the concept of ordinary biodiversity. If a project involves risks of impacting this, it will need to either "avoid" doing so, or "reduce" its negative effects, or "offset" its consequences. Some municipalities will have stronger demands than others.
- Biodiversity contributes directly towards creating value for occupants and the building itself.
- New iconic projects such as 55 Amsterdam will illustrate Gecina's commitment, which is focused today on standardizing and accelerating.

Architecture, natural interface with the natural world

Meeting with Denis Valode,
architect, cofounder of Valode & Pistre

Denis Valode, internationally renowned architect and cofounder with Jean Pistre of the agency which shares their name, defends the conception of architectural designs that respect the biosphere, while ensuring the comfort of their users.



What is your vision of biodiversity from an architectural perspective?

“An architect’s objective is to limit the ecological footprint of their constructions to ensure that they do not adversely affect their environments or the development of the various species concerned. This is the very definition of ecology. Architecture is often perceived as something passive and barren, whereas in reality it implies a major interface with the natural world. As a result, taking biodiversity into account is an integral part of the approach for our business, but it is being picked up on in new ways today thanks to changes in public awareness”.

Is biodiversity systematically incorporated into your projects?

“The answer is not so simple, because we are not the only ones concerned. However, what is clear is that it is increasingly taken into consideration. Biodiversity can also have quite strong effects which directly impact our activity: for instance, one of our projects in the Toulouse region of France has been blocked for several months because it is located on a breeding site for a small rodent”.

Have changes in how biodiversity is taken into account led to any changes in your own architectural ambition?

“Traditional architecture was relatively accommodating for nature and birds in particular. For instance, we talk about the house martin, which builds its nest, as its name indicates, beneath the eaves or windows of houses. With their smooth surfaces, the houses built today are no longer suitable for these species to establish themselves. So we need to address these issues and we are taking action. Beaugrenelle is quite a good example of this. Its green roof, the size of a football pitch in the heart of Paris, has been thought out to accommodate multiple elements of animal and plant biodiversity. In our work each day, looking beyond the review process on global warming, we are developing a review process focused on cohabitation with a whole range of species, some of which are declining sharply, such as sparrows”.

How do you integrate this topic with your teams?

“This integration is on two levels. First of all, it is global, through an approach looking at the influence seen at city level, as well as regionally. Our ambition is to identify ways of enabling cities to become more dense and limiting urban sprawl. Alongside this, we carry out highly concrete work for each action. When building Beaugrenelle, we decided to carry out various projects that would support biodiversity, such as green facades. Instead of developing relatively exotic walls, as has been widely practiced, we created large “shelves” with plants found in the local squares. They represent a continuum with the biotope. The effective integration of biodiversity depends on how we set up and preserve the natural elements within projects, as well as our ability to find interfaces with as many plant and animal species as possible. This wider-ranging review requires real knowledge. We work with landscape architects who are open to these issues and we even bring in specialists for certain topics. The complexity of the issues raised guides what we create. The more our response integrates complex elements, the more relevant our approach will be. And biodiversity is an integral part of the various issues that we must take on board”.

.....
“Our review process goes way beyond the act of building itself. We are building for the planet.”

Is biodiversity simply a trend?

.....
“We need to conceive reusable buildings that do not need to be destroyed in order to evolve.”

“Fortunately, this is far more than just a trend. It is a matter of survival. Every day, we are becoming more aware of our dependence on other species and our environment. In Europe, and particularly in France, I have seen a significant increase in awareness levels. Nevertheless, this is still limited. A lot of issues are still unresolved, such as the excess consumption of meat in rich countries, which is exhausting the planet’s resources. To come back to architecture, we also need to look into materials and their recycling or even our construction approach. Few people know this, but we will soon face a shortage of suitable sand for construction¹ around the world. And yet this is essential today for producing concrete. The challenge is therefore to be able to design sustainable structures that will evolve with time through new functions. We need to conceive reusable buildings that do not need to be destroyed in order to evolve. Our review process goes way beyond the act of building itself. We are building for the planet and more specifically for humanity’s survival on this planet”.

Can architects work without this approach?

“Today, real understanding of architecture is still at a very low level. The media and general public are keen to glorify extraordinary developments. I believe that architectural quality is being confused with spectacular developments because, to achieve this result, it is often necessary to use even more materials...and, of course, to further exhaust the planet’s resources. However, this is not what architecture is about. It aims to conceive spaces that provide more comfort and pleasure for their users, in which they can carry out their activities under better conditions, and where they feel a greater sense of pride in existing as a man or woman. As the press thrives on the spectacular, there is a risk of missing out on essential issues such as taking biodiversity into account”.

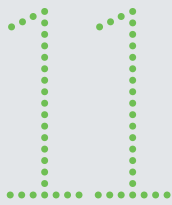
How do you see Gecina’s commitment?

“We shared a very rewarding experience together on the Beaugrenelle project. For all of us, this outstanding construction has played a major role in us becoming aware of the close link between integrating biodiversity elements and improving a district’s urban development. We believe that certain project owners are raising our standards and that is the case with Gecina. On a day-to-day basis, we prefer those who share the issues that we promote and biodiversity is one of them”.

Newside, focused on wellbeing

.....
This 18,000 sq.m office building, located in La Garenne-Colombes (92) and designed by Valode & Pistre, capitalizes on the wellbeing of its occupants. The layout of the platforms helps ensure generous natural lighting. All the floor levels have light at the start of the day. The building also includes a company restaurant that is open to the outside, as well as meeting rooms with views of the open air tree-covered patios. To promote direct contact with the green spaces (1,850 sq.m and 35% of the plot), Newside has external terraces that are open to everyone.

¹ Unlike marine sand, sand from deserts, polished by the wind, is not suitable for construction



Assessment of Gecina's biodiversity strategy and recommendations

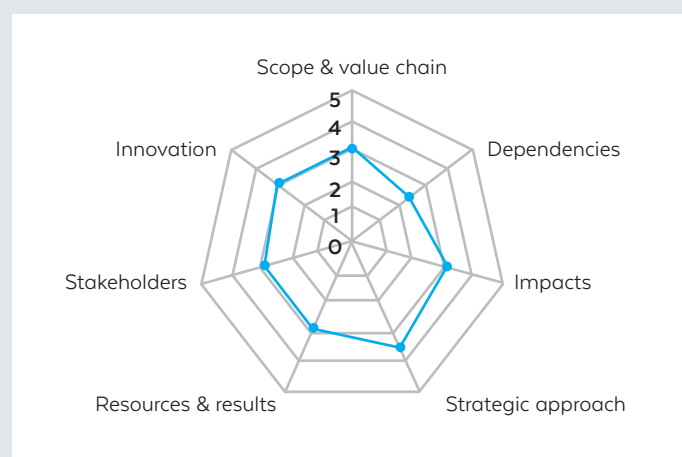
B&L évolution, a specialist research consultancy focused on the three key issues for sustainable development, supports businesses and municipalities as they work towards a global performance. It aims to establish its customers as driving forces for the transition to a fairer, more sustainable society. This involves integrating these emerging risks into their management across their value chains and innovating with products and services to enable a genuine and effective transformation of models.

At the start of 2014, B&L évolution published the first assessment of the biodiversity strategies of CAC40 companies (available on <http://www.empreinte-biodiversite.org>). To achieve this, in-depth research was carried out looking at how biodiversity issues are taken into account by CAC40 companies, based on their CSR reports or registration documents. The information collected was then subject to a fine-grained analysis using a specially developed frame of reference with over 75 criteria, each rated out of five, structured around seven areas: scope and value chain, biodiversity impacts, dependence on ecosystemic services, strategic approach, tools implemented and results, legislation and innovative practices. This offers a rating of the biodiversity policy's performance and relevance. The findings have been grouped together for each type of activity in order to thoroughly compare the different approaches and identify the ambitious companies with strong commitments, as well as the areas for progress. This assessment is currently being updated for 2014 and will be published soon.

Having found out about this work and the expertise developed, Gecina called on B&L évolution to assess its biodiversity strategy. This external assessment was intended to analyze the actions taken and the policy implemented by Gecina, taking an objective view, positioning the company in relation to its competitive environment on this subject and identifying areas for progress. The data used includes public documents covering this topic, as well as clarifications from internal documents and a questionnaire completed by Gecina's teams.

1. Analysis of Gecina's biodiversity strategy and rating

Gecina's biodiversity policy, assessed by B&L évolution, scored 2.94 out of 5, positioning it as a best in-class company on this major issue. Nevertheless, there are a number of areas for progress and the company needs to continue building on its commitment.



In particular, this assessment revealed the following points:

- Quite a broad scope for the approach, but not yet complete: Gecina has defined quite an extensive scope – which tends to factor in part of its portfolio and some stakeholders within its value chain – for its biodiversity approach. However, neither the full portfolio nor the entire value chain are analyzed or included in the action plan's implementation.

- More in-depth analysis required for impacts and dependencies: Gecina has clearly identified and analyzed the impacts of its own activities on biodiversity, but the entire value chain is not included. Dependencies in relation to biodiversity and ecosystemic services are not identified or formally analyzed. This exposes the company to operational, reputation, regulatory and even commercial risks over the short and long term.
- A structured strategic approach, with strong commitments: Gecina has formalized its biodiversity commitments, with three objectives broken down into 10 separate commitments, covering part of the value chain. The company makes this a real strategic asset, thanks in particular to the support of its top managers and dedicated teams. Its position as a pioneer has been recognized with a number of awards and it has achieved SNB national biodiversity strategy recognition.
- Resources and tools formalized and put in place: Gecina has built a biodiversity dashboard containing the calculation for the BAF indicator (biotope area factor). An action plan has been defined, along with steering tools – such as biodiversity analyses with professional partners – but its deployment needs to be further strengthened. The presence of a dedicated biodiversity working group within the Group’s policy represents a strong asset for Gecina. This allows the team to monitor progress with the various actions and adapt the plan accordingly.
- Stakeholder engagement: Gecina has successfully translated its biodiversity action into part of its value chain, in line with its stakeholders. Technical managers have gradually been trained up on biodiversity issues since 2014. In addition, actions are carried out to raise awareness among employees, tenants and the general public (cycle of conferences, setting up hives, collecting and selling honey, inauguration of the Beaugrenelle center). However, the integration of biodiversity in the procurement policy, among other elements, is still limited.
- Integration of biodiversity for R&D to be developed: Gecina calls on professional ecologists during projects in order to adopt innovative ways of taking biodiversity into account. The Group is also taking part in the Végétalisations Innovantes innovative greening project, launched by Paris’ City Hall. However, a stronger position would benefit the policy and further strengthen the analysis of these issues in terms of the services and buildings offered.

2. General recommendations

Gecina has carried out a number of effective pilot actions for biodiversity. The two key points to continue moving forward with this approach and ensure its success are, on the one hand, ensuring its widespread adoption, and on the other, having a dependency risk approach. The aim is to extend the capacity for taking its interdependency with biodiversity into account for Gecina’s entire portfolio and value chain and to better understand its interdependency in relation to biodiversity.

2.1 More comprehensive scope for integrating the value chain

The scope chosen by Gecina for defining its action plan and promoting biodiversity tends to factor in a larger part of its portfolio, compared with many real estate firms, which focus on a more limited scope, i.e. a few pilot sites. However, the action plan rolled out is still centered primarily around a few sites in particular. To further strengthen the relevance, efficiency and effectiveness of its actions, Gecina needs to gradually broaden its scope to cover its entire portfolio. Ultimately, the aim is to effectively include the entire value chain in the scope of its biodiversity strategy.

2.2 More operational and meaningful analysis of dependencies

Gecina is ahead of other real estate companies when it comes to analyzing impacts, but it rarely identifies dependencies, compared with a company like British Land, which has been particularly active on this subject. Gecina would benefit from a more in-depth analysis of its impacts and above all its dependencies in relation to biodiversity and ecosystemic services. Indeed, this last approach factors in risks that are often unknown or ignored because they are seen as secondary, whereas they are real and can be transformed into opportunities.

With regard to the impacts, and particularly regional fragmentation, Gecina could consider a stronger integration of its portfolio with the green and blue networks focusing on three areas:

- Initiating the general deployment of this approach: selecting a sample of sites (e.g. five to 10) every year: site mapping, inventory, arrangements already in place for integration into the green and blue networks, new arrangements to be planned for with a view to improving ecological continuity.
- Creating best practice fact sheets, explaining how to (re) create “green” spaces in urban environments and what maintenance to recommend for successful integration within green and blue networks, to be used for green space renovation projects for example.

- Updating the mapping carried out previously, by incorporating new sites and more generally supplementing and refining knowledge of “green” spaces throughout the portfolio.

In terms of its dependencies, Gecina can start by carrying out an assessment with support from the ESR tool - evaluation of services provided to businesses by ecosystems - for example on several dimensions:

- Corporate: identifying and analyzing the dependencies throughout the value chain (suppliers, subcontractors, customers, traceability of materials, etc.)
- Portfolio management: updating the analysis already launched (product / service approach), building up a more in-depth approach and ensuring its general application for the entire portfolio.

This dual approach will focus Gecina’s strategy on creating greater value for its stakeholders, while gaining much more specific knowledge of emerging risks.

2.3 Strategy to include milestones and team to be further strengthened

Gecina is ahead of other real estate companies as regards structuring a biodiversity strategy. Gecina has built a relatively comprehensive approach, incorporating the issues identified previously, and has been awarded SNB national biodiversity strategy recognition. In line with the previous points, the main recommendation for the Group is to systematize its actions, including the labels achieved by sites.

A deployment plan that is structured over time is required (long-term vision, medium-term goals, short-term milestones). This approach will ensure that the Group’s progress is tracked and monitored.

2.4 More in-depth biodiversity management system required

Gecina has a dedicated biodiversity team. To ramp up its action on the ground, the Group needs to further strengthen its team by bringing an ecology expert on board for instance to monitor the sites and roll out the approach.

With regard to biodiversity management indicators, their scope for analysis should also be extended to include the entire portfolio. A more structured dashboard would be beneficial for monitoring actions within the biodiversity team. The development of new indicators, based on the GRI or assessing the areas developed, would enable even better reporting on Gecina’s commitment and its results on this subject.

It could also be interesting, following the “zero pesticides” management approach for the whole portfolio, to carry out audits at the sites to check that this policy is actually being applied.

2.5 Effectively taking stakeholders into account to be improved

Training and awareness-building actions for employees, providers, tenants and the general public are carried out by holding conferences, setting up hives, inaugurating buildings, etc. These actions are still ad hoc and need to be maintained and stepped up (particularly technical training). An exchange network could be set up between the various building managers in order to share best practices.

The biodiversity aspects in the procurement policy also need to be structured: purchases of supplies, services, building / renovation tenders, audit and assessment of suppliers, etc.

2.6 Specific R&D focused on biodiversity issues to be developed

Gecina’s R&D policy factors in the preservation of biodiversity, but is still less advanced compared with certain real estate companies. Gecina is taking part in the Végétalisations Innovantes innovative greening project launched by the City of Paris alongside other participants. Diversifying its partnerships with universities or research chairs for instance will further strengthen this approach. It could also be interesting for the Group to develop a prospecting activity as a major player for the future of real estate. A forward-looking seminar could be organized, taking into account environmental constraints and their impacts on lifestyles, to provide Gecina with insights into the long-term roadmap, while guiding its strategy as of today.

Insights

Sylvain Boucherand, cofounder of B&L évolution

“The issue of biodiversity is progressing, but it is unfortunately only partially understood by most businesses. It is often seen as a “constraint to protect a few species attracting media attention” – which is important of course, but which does not reflect the real challenge: having a business model that is compatible with the dynamics of the various ecosystems. So it is important to understand the risks (raw materials, impacts of infrastructures, intangible benefits derived from nature, etc.) and innovate in order to work within a genuinely sustainable strategy.

This approach, based around the stakes for biodiversity, ensures consistency across all environmental issues (water, waste, carbon, energy, pollution, etc.) and establishes links with the regions and their stakeholders. Certain companies are starting to look at biodiversity with this vision and making it a real opportunity. I hope that all companies will quickly understand their interdependency with biodiversity and transform their business models accordingly.

More than something that would be nice to do, this is vital for the company and this is already reflected in growing demands from stakeholders, as well as the direction in which international standards or regulations are moving. More than words and commitments, now is the time for action in order to make this into an opportunity”.

Continuing to raise the bar: expert insights and perspectives

Guillaume Sainteny, Chairman of GS Conseil, associate professor at Ecole Polytechnique and a member of Gecina's stakeholder committee, looks at the Group's actions and the new dynamics to be established. Stéphane Carpier, Yves Dieulesaint and Joanna Rebelo answer his questions directly as part of this roundtable.

Yves Dieulesaint: "You wanted to find out about Gecina's biodiversity report. What is your view now?"

Guillaume Sainteny: "One day, you said to me "we have just understood that biodiversity is about more than just green spaces". In your report, we can really feel this conceptual leap, this change and your desire to present all the actions carried out since you made your commitment to supporting biodiversity. However, the main guidelines do not seem clear. I also noted some missing aspects, like invasive exotic species for instance. This is becoming an increasingly important issue today, notably driven by the European Union".

Joanna Rebelo: "You are correct, but today we still very rarely come across this issue of exotic invasive plants, even if we are monitoring butterfly bush plants for instance and ensuring they are not selected. In our new build programs, we take particular care with the level of coverage of a particular species, rather than dealing with just numbers. We are also particularly involved with work carried out by the Paris Region and the French association for the protection of birds (LPO) on local seed labelling, because when we recommend local plants, we very often struggle to get hold of them".



Guillaume Sainteny

Guillaume Sainteny: "Potentially, you could also further highlight the work accomplished with the creation of ponds in your portfolio, because wetlands are particularly under threat and biodiversity-rich. We are talking about elements from the green and blue networks. 100 square meters of this type are more important than an average green space".

Yves Dieulesaint: "In your opinion, can these two points – affirming the policy for selecting species and looking at areas of wetland – represent guidelines for Gecina?"

Guillaume Sainteny: "Yes, definitely. On the one hand, we have the exclusion of problem species in terms of plants, which you are already working on, with invasive non-native species that must absolutely be forbidden, giving preference when possible to endemic species. The second point, relating to the quality of the semi-natural spaces recreated, not only wet areas, is as I was telling you essential. I suggest



Yves Dieulesaint,
Head of CSR

differentiating another element which I feel you avoid slightly: the issue of applied lifecycle analysis for biodiversity, and not only in terms of CO²”.

Stéphane Carpier: “In terms of lifecycle analysis, we have a global approach focused on 14 items, all relating to biodiversity. Today, we carry out lifecycle analyses on all our projects. We have realized that our true strength also lies in carrying out partial lifecycle analyses, because they relate to specific materials. We are benefiting from returns on experience, making it easier to identify materials that affect a building (structures, floors, insulators, etc.). When we manage to define priorities in terms of these macro-materials, through effective choices, the building’s entire impact is reduced by far more than with an approach that was previously limited to looking at paints and carpets”.

Joanna Rebelo: “Today, to save time and guide the design teams, we model several choices for flooring or structural elements to identify the best possibilities. For instance, with 55 Amsterdam, we compared various insulating materials such as cellulose wadding, wood wool, glass wool or even mineral wool. Certification is another area for taking action on these materials. On this same program, we only chose ISO 14001-approved products for



these macro-components. We appreciate this hallmark for an approach that ensures the reliability of the chain for extracting and processing materials”.

Guillaume Sainteny: “There is another area for improvement with your approach. You use relatively few indicators. The concept of greened space is undeniably useful, but these spaces can turn out to be “poor” in terms of biodiversity. In the future, various possibilities could be considered, such as an inventory taking stock of nesting birds. We often start off with them because they are the easiest to observe”.

Joanna Rebelo: “We have a project underway, in the research and development category, on which we are monitoring five buildings from our portfolio from an ecological, societal and economic perspective. On an ecological level, we are drawing up flora inventories and monitoring nesting levels in October and November”.

Yves Dieulesaint: “So, do you believe it is essential to further strengthen the indicators put in place?”

Guillaume Sainteny: “Yes, because they measure your impacts, both positive and negative. There is one known indicator, with the rating for the abundance of bird species. It shows that the species living in forest environments are stable or declining slightly and those in agricultural environments are declining significantly, whereas the species in urban or opportunistic environments are in relatively good health. Gecina does not necessarily need to carry out this type of inventory every year, but if you are able to show that every five years you have X% more nesting species, this would indicate a biodiversity that is growing richer. Additional numbers of birds means new sources of prey. I believe it is essential to put in place indicators because these are instruments for measuring, motivating staff in-house and communicating externally with customers, as well as NGOs and public authorities. In terms of real estate and the growing levels of artificial ground cover, the minimization of artificial ground is expected to become a key indicator over time. On the one hand, of course, we need homes, but on the other, we want to reduce the level of artificial ground cover and urban sprawl. Part of the solution to this double constraint may involve minimizing unnecessary artificial ground cover, in other words minimizing the total area of artificial ground in relation to the square meters available for residential or commercial use. For instance, if we currently need 100 sq.m of artificial ground cover for 33 sq.m of living space, could Gecina measure its ratio in this area (is it higher or lower than its competitors?), improve it either through the denominator (e.g. 90 sq.m for 33 sq.m of living space) or through the numerator (e.g. 40 sq.m of living space for 100 sq.m of artificial cover), and set itself objectives in this area?”

Stéphane Carpier: “When we looked at our biotope area factor this year, we wanted to calculate a sort of ground use coefficient. This shows that we have very strong density levels on our plots, which explains why our results have scope for improvement in terms of our biotope area factor. All available space on the





Guillaume Sainteny

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“ **For me, it is essential that the growing level of awareness is now shared by all staff and not just a limited number of experts.** ”
Guillaume Sainteny

ground has been optimized, leaving little room for green spaces. But if we develop buildings with large spaces set aside for biodiversity, we will be moving away from the need to increase density levels. So this is a real issue”.

Guillaume Sainteny: “Once again, this is indeed a real issue. There is a consensus concerning the need to rein in urban sprawl. At the same time, people like to see green spaces in cities. However, these intra-urban green spaces are now facing demands, which will undoubtedly grow, for them to be not just green spaces, but also welcoming for biodiversity. This applies to both their make-up and their maintenance approach. I believe that Gecina will need to strive to develop green spaces with greater biodiversity potential. Simple practices, such as late mowing or starting off by mowing the middle and not the edges (because this traps in wildlife, which is then crushed), could be rolled out quite easily. Differentiated management has an important role in this respect. What action are you taking in this area?”

Stéphane Carpier: “In terms of differentiated management, we require our providers to avoid using any pesticides. In terms of mowing heights, this is a more delicate issue. Certain lawn areas are very aesthetic, particularly in building entrances. So it can be difficult for us to develop areas there where wildlife can flourish and contribute to pools of biodiversity. However, for all the other spaces, which are less exposed, we are using this differentiated management approach, which was one of the requirements in the specifications for our recent request for proposals for the management of our green spaces, with different levels of mowing heights. However, when we visit our properties, we find that this is not always being applied in practice. From now on, we are monitoring our providers based on regular checkpoints”.

Yves Dieulesaint: “This is also a result of Gecina’s new organization, rolled out last year, bringing CSR into the operational business, with an active responsibility on the portfolio”.

Guillaume Sainteny: “To come back to your report, I sometimes find that you are too modest, in terms of your greening operations for instance, such as for Boulogne-Billancourt and your Horizons building”.

Stéphane Carpier: “Horizons is a very interesting example because it represents a transition point and changeover in terms of Gecina’s commitment. Initially, it had been looked at focusing exclusively on the landscape. We have chosen to incorporate a 40 cm substrate, which is very effective for welcoming and maintaining local biodiversity”.

Yves Dieulesaint: “For Gecina, what are the next steps to take to clearly set out our commitment?”

Guillaume Sainteny: “For me, it is essential that the growing level of awareness is now shared by all employees, and not just a limited number of experts. For a project to mark a company, the culture needs to be shared. It is also important to promote the integration of biodiversity within the value chain, which means looking beyond what Gecina does to also include what is done upstream and downstream for instance in terms of sourcing supplies. Just because a product claims to be responsible, this does not mean it does not have any impacts somewhere around the world. And you and your teams need to be able to verify this”.

Stéphane Carpier: “Can you see any possibilities emerging for adding value to the impacts of biodiversity?”

Guillaume Sainteny: “There are already various elements in place internationally, including the Debt for Nature Swap approach, invented by the Americans, which involves writing off money owed to countries of the North by countries of the South in return for actions supporting nature. There are also offsetting principles in place in several countries, covering habitats and species. One part of the new French biodiversity law is particularly interesting. This concerns the “conservation servitude” concept. This is a major legal innovation. Today, the conditions for establishing servitude links are restricted. You need a dominant fund (benefiting from the servitude) and a servant fund (property on which the servitude is exercised). With this new law, it will be possible to establish servitude links without owning them. Servitude links will be able to become active, with a requirement to manage plots from an ecological perspective”.

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“Gecina will need to strive to develop green spaces with greater biodiversity potential.”

Guillaume Sainteny

Joanna Rebelo: “In your opinion, what are the strengths of the Anglo-Saxon culture in terms of this better understanding of biodiversity?”

Guillaume Sainteny: “The Anglo-Saxon countries have a higher level of general

culture in this area. To take just one example, in the UK, the Royal Society for the Protection of Birds has nearly one million members, whereas the French equivalent, the LPO, has just under 50,000, which is already a lot for a French NGO. If you go for a walk in the English countryside at the weekend, you will see people everywhere taking part in birdwatching. This activity is very widespread and very popular. Elsewhere, the Americans use a term that has no French equivalent with “wilderness”, referring to the wildness of nature! The Protestant religion includes this idea that man must leave intact at least part of the nature he found when arriving as a work of God. On the other hand, the Catholic religion focuses more on the concept of man as master and owner of this same nature. Despite some preconceived ideas, Anglo-Saxon countries, including the Americans, have been pioneers for preserving nature. Yellowstone was created in 1872, compared with 1963 for the Vanoise national park in France, nearly one century later”.

Yves Dieulesaint: “Thank you for your insights. We are going to take these possibilities for development on board, drawing inspiration from our Anglo-Saxon peers’ best practices, and we will be able, I hope, to report on our progress at a future stakeholders workshop focused on biodiversity”.

7 enablers for a better biodiversity approach

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1. Prioritizing

Ensuring that biodiversity is given at least the same priority as energy.

2. Protecting

Preserving, protecting and restoring species, as well as ecosystemic services.

3. Rethinking

Recognizing the productive dimension of biodiversity’s ecosystemic services, well beyond aesthetic and recreational contributions.

4. Exceeding

Repositioning biodiversity from the scale of an individual building to that of an entire city and various regions, working on the entire real estate value creation chain.

5. Broadening

Moving from a segmented theme-by-theme approach to an integrated, systemic review process.

6. Systematizing

Extending the approach supporting biodiversity to include all buildings within the portfolio (new builds AND also existing properties).

7. Progressing

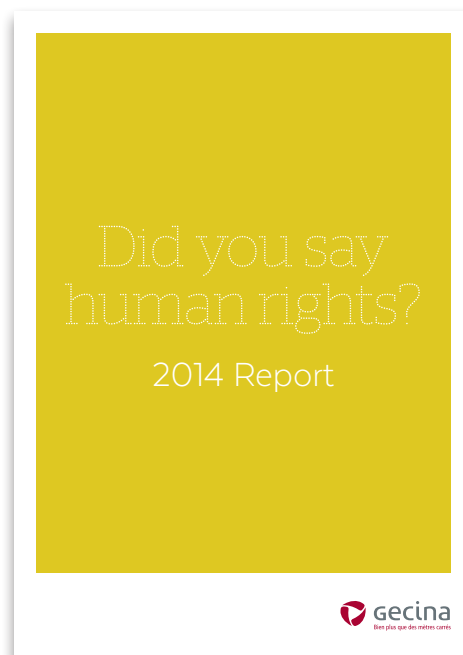
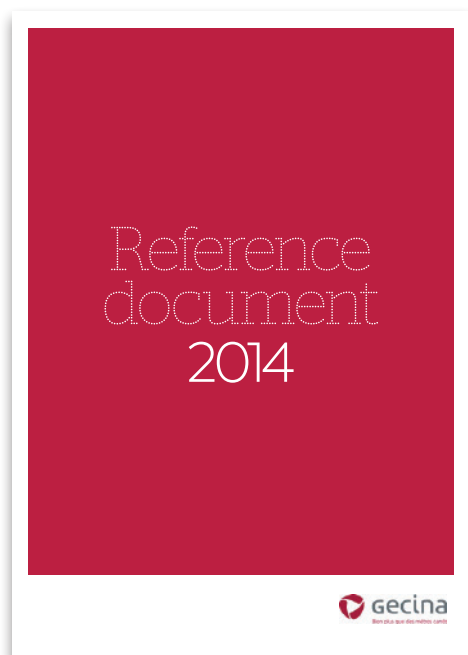
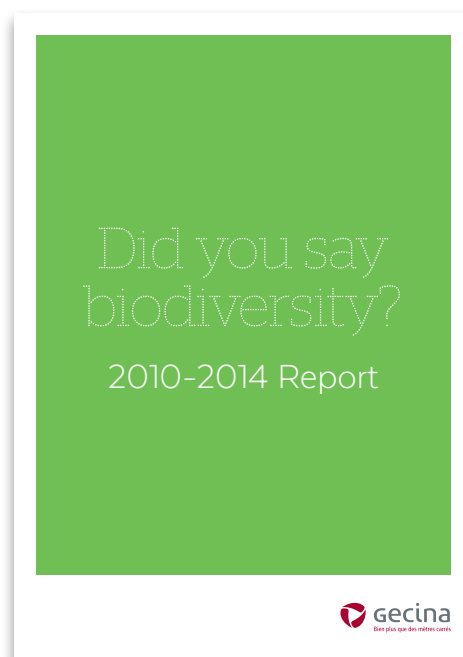
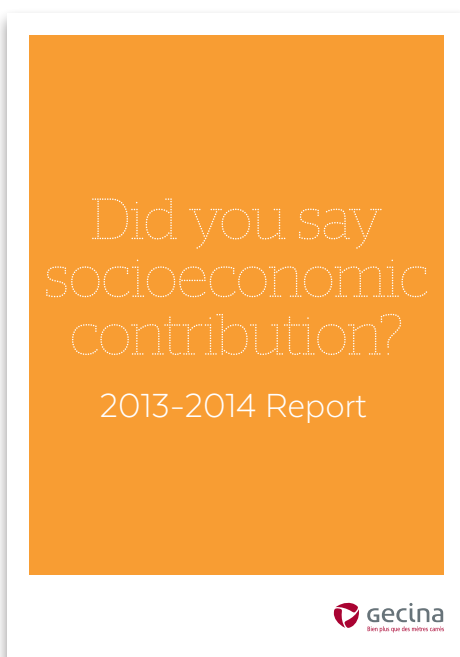
Developing positive biodiversity buildings.



Khapa building, Boulogne-Billancourt.

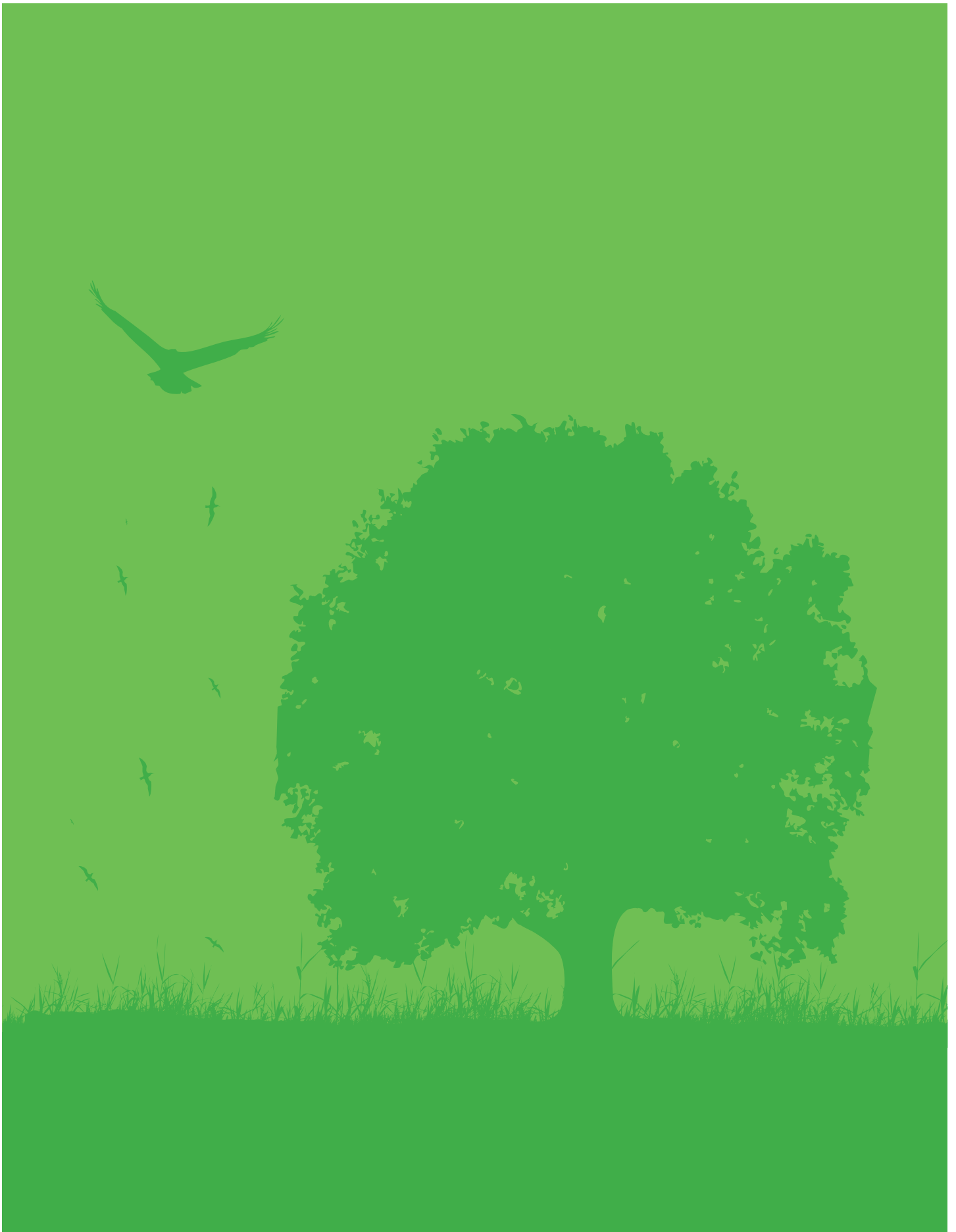
Gecina's reporting ecosystem

You will be able to find a global view of Gecina's strategy, commitments, action plans and performance in the Integrated Annual Report and the elements detailed in the 2014 Reference Document. Further reports provide an exhaustive view of four specific areas: biodiversity, socioeconomic contribution, human rights and stakeholder relations. All these documents are available on the Group's website: www.gecina.fr.



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