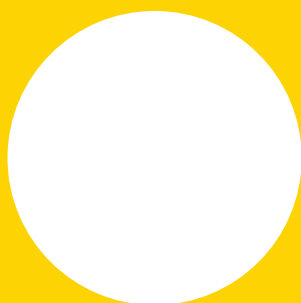
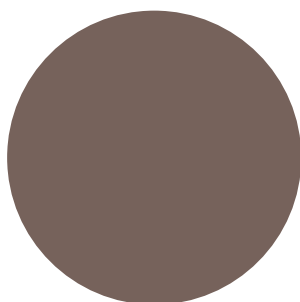


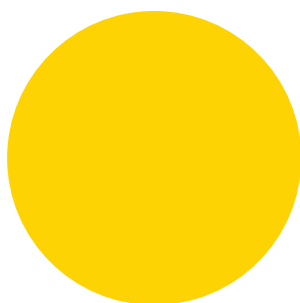


**10 YEARS
OF IMPACT
2013-2023**





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OF IMPACT
2013-2023**





PREFACE

BY NICOLAS DUFOURCQ

10 years already, an odyssey. If I compare Bpifrance today with that of December 2012, I can see an incredible continuity in the nature of the project, along with an incredible increase in new initiatives to bring the project to life.

Today, 80% of Bpifrance employees were not with the company in 2012; they provide support, 80% of which was not available in our product catalogue in 2012; and they advise clients, 80% of which are not from the legacy files of Oseo, CDC Entreprises, and FSI. Of course, France and the world have undergone significant changes. For us, as for the major players in the economy, it has been a matter of navigating through the gradually darkening skies that held the storms of populism, COVID-19, and now war.

Throughout this decade, I see some distinct periods emerging. Firstly, 2013 to 2015: the bank was launched in a France that had lost its faith and did not celebrate its entrepreneurs as they deserved. We introduced the new face of a "psychobank," attentive to the challenges faced by men and women, combined with a social network of entrepreneurs. To regain some traction, nothing beats blending into a tribe. With Fleur Pellerin, we created La French Tech, and then with Bruno Le Maire, we established La French Fab. These were

places where self-confidence was contagious. We first raised the banner of pride in Tech by decreeing that we French were "like California without knowing it" and a *Start-up Nation*. The years 2013-2015, when we held our heads high, saw Bpifrance's in-house staff silently sewing together the elements that make a modern, digital, cross-cutting, process-oriented, regulated, managed bank.

The period of 2015-2020 witnessed a plethora of new developments for Bpifrance: the launch of our consulting activities that have become massive today; the takeover of public credit insurance activities from Coface; the takeover of partnerships with global sovereign funds from the CDC; the takeover of all government and CDC actions in support of business creation, including in the suburbs; the launch of the Lac d'Argent fund to provide long-term support for major Euronext-listed French groups; the start of Bpifrance's *Retail* activities; the launch of the Deeptech plan, which led to the industrial start-up plan in 2022; the rollout of our actions in Africa; and, of course, the launch of the Climate Bank. These developments are natural. Bpifrance deploys the initial project by reaching out to young entrepreneurs in the suburbs, researchers in scientific universities, foreign partners to whom we introduce a "new France", exporters whom we encourage to discover "new worlds", and the French themselves, to whom we propose investment in the public bank, their bank! The six months of the 2018-2019 winter held serious threats; we felt that French society was progressing at a glacial pace and that the glacier itself was riddled with dangerous obstacles. We said that we needed to speed things up, with the simple idea that entrepreneurs would be a solution to the problems raised by the Yellow Vest crisis.

The pandemic of 2020-2021 was a rendezvous with destiny for Bpifrance, and revealed the incomparable strength of its DNA. We launched the *cash* airlift, called 100,000 entrepreneurs on the phone, and scheduled video conferences with them every Thursday to provide them with a progress report. For months. We constantly thought about how to help them escape their solitude and used our tools to support the deployment, extraordinary in hindsight, of state-guaranteed loans by French banking networks. It was a period of public salvation, to use grandiose words. It was also a time when new ideas about reindustrialisation came to maturity. The Covid-19 pandemic shifted geopolitical lines and created the unthinkable: in our divided country, a consensus! A consensus on "produce in France". Fortunately, our actions and those of the government since 2012 have all converged towards the development of a new generation of ambitious and free entrepreneurs in all sectors. A new wave of young industrialists is entering the market. They were 20 years old in 2012, and they learned. These are the industrial start-ups, and we will be there for them.

Since 2022, a new leaf has been turned over. We have moved to another world. It's a total transformation. The other world? It has its vocabulary, where some new words weigh heavily: industrial rebirth, decarbonisation of the productive fabric, disorderly transition, France 2030, energy crisis, end of the WTO, dramatic exacerbation of the Sino-American conflict, war of attrition in Europe, federal leap, state over-indebtedness. We at Bpifrance navigate these waters. We are operating a significant part of France 2030, starting a mass door-to-door decarbonisation campaign for 20,000 SMEs, acting on all components of the mobility revolution, reinvesting in the defence sector, preparing for the aging revolution of French society with our financing, and always, always urging the French to become entrepreneurs. They have the capacity. They often have the desire. They are still plagued by fears, sometimes inexplicably so for a country so generous with protections. On the contrary, we believe that being the best-protected citizens on Earth is precisely what enables us to be the most entrepreneurial. Anchoring this conviction, spreading optimism and a

culture of achievement, are the reasons why Bpifrance was created by parliamentarians in 2012, though they had no idea of the upheavals that were to come over the next decade. "So much to do in a country where everything is possible," was their intuition. It is still valid today.

Nicolas Dufourcq
CEO
Bpifrance






FOREWORD

WHY THIS REPORT

It has been 10 years since Bpifrance, the Banque Publique d'Investissement, was launched. It has been a decade marked by significant transformations and unexpected events. From the aftermath of the 2008 crisis to Brexit, the COVID pandemic, climate change, and now a war at Europe's doorstep, with crises occurring at an increasingly rapid pace.

When Bpifrance was launched, the country was still recovering from the economic and financial crisis, and the industrial sector was particularly weakened. One of the key decisions made by the government in creating Bpifrance was to gather together and develop all public support programmes for financing French VSBs/SMEs and mid-sized companies, including major groups that require stability and shareholder continuity, under a single governance. The objective was to provide entrepreneurs with the tools they need through a complete financing toolbox, from grants to equity, from creation to transmission and internationalisation, to innovate, create, rebound, and accelerate, enabling the French economy to transform, modernise, and regain its competitiveness.

This action was designed and developed by seeking to leverage the rest of the financing ecosystem, both public and private. For Bpifrance, it was about getting its partners to finance more risk, with ambitious and transformative projects. Over the past decade, Bpifrance has tirelessly worked with local banks, insurers, French and international investment funds, the regions, the Investing in the Future Programme (PIA), creation aid networks, export operators, the European Commission and the European Investment Bank, and now the main sovereign funds of the world, to revitalise and transform the national industrial fabric.



What are the results and the impact on the French economy of these first 10 years of Bpifrance's operations? This report aims to answer that question. In particular, it brings together all the impact assessments that have been carried out in recent years. It is crucial to evaluate these actions to understand their effects and deduce the best instruments to address future challenges in an ever-changing economy and financing ecosystem. Evaluation has been at the heart of Bpifrance's actions since its inception, led by a dedicated team that has summarised the results in this report. The underlying studies, produced by economists, researchers, and experts, are public and accessible on our website. In this report, they are complemented by a collection of testimonials. Bpifrance employees, as members of the executive committee, financing experts, or sector specialists, have been actors and witnesses of how Bpifrance has developed and adapted to meet the transformation challenges of its clients and the economy. A selection of emblematic clients with a rich entrepreneurial journey over the past 10 years, illustrate the issues encountered and the contributions that an actor like Bpifrance can offer companies at key moments of their growth.

The measured impacts are quite significant, creating value, employment, and innovation, contributing to very positive transformations of the French economy observed over the past 10 years. While not all goals have been achieved yet, it is crucial to acknowledge and work with the long time that is required for public policies to support a successful, competitive, international, digitised and decarbonised French offer. Industry, the core of the bank's action, must overcome the obstacles of the health crisis and geopolitical crises that shake up value chains in order to solidify the start of recovery that was seen in the years preceding the pandemic.

This report seeks to shed light on how to respond to future challenges by measuring the impact of past actions in partnership with the entire financing ecosystem, which has demonstrated its strength and resilience during these last years of crisis.

We hope you enjoy reading it.

Pascal Lagarde

Executive Director, in charge of International, Strategy, Studies and Development

Philippe Mutricy

Director of Evaluation, Study and Prospective

Baptiste Thornary

Head of macro-economic studies and evaluations

10 YEARS OF IMPACT 2013-2023

01.	10 YEARS OF CHALLENGES FOR THE FRENCH ECONOMY REVIEW OF THE BUSINESS CLIMATE	12
02.	10 YEARS OF IMPACT BY BPIFRANCE AN OVERVIEW	22
	EPILOGUE.....	126

**10 YEARS OF
CHALLENGES
FOR THE FRENCH
ECONOMY ...**

...

**REVIEW OF THE
BUSINESS
CLIMATE**

01.

2012-2014

Facing the consequences of the deep crises of 2008-2009 and 2011-2012

At the end of the 2008-2009 financial crisis and the sovereign debt crisis in the euro area, the French economy was sluggish, affected by budget consolidation measures, like the rest of the euro area. In 2012, the euro area was in recession (down 0.9%) and the French economy was almost stagnant (up 0.4%). French economic growth remained weak throughout this period (up 0.7% on average between 2012 and 2014), and the unemployment rate exceeded 10%, weighing on household consumption. This rate remained almost stable during the period 2012-2014 (with an average annual growth rate of 0.3%). Investment by non-financial corporations (NFC) also suffered (up 0.7% per year), penalized by a degraded financial situation. In 2012, the NFC margin was at its lowest level since 1985 (29.6% in the 4th quarter) and their debt rose (up 10 percentage points compared to before the financial crisis, to 63% of GDP). Cash flow indicators for VSBs and SMEs were particularly impaired⁽¹⁾, and defaults were numerous: more than 5,000 per month in 2012 compared to less than 4,000 on average between 2000-2007, before the financial crisis. In this context of weak demand, inflation gradually decreased, passing 2% in early 2012 and reaching almost 0% at the end of 2014, raising the risk of deflation.

This period also marked an awareness of the need for a more flexible economic policy in the euro area. On July 26, 2012, the new President of the European Central Bank (ECB) Mario Draghi used the famous "Whatever it takes" method to prevent the euro from failing. It marked a turning point in the euro area crisis and signalled a change in monetary policy, with the ECB positioning itself as the lender of last resort. On the budgetary side, at the beginning of 2013, the IMF acknowledged having underestimated the recessionary impact of budget consolidation in the euro area⁽²⁾. This opened the way for a *policy mix* more favourable to growth.

In France, this was also the time for strengthening a proactive industrial policy, aimed at improving the competitiveness of companies, in particular the publication of the Gallois report in October 2012, at a time when the industrial sector was marked by net plant closures (between 75 and 100 in 2012⁽³⁾). The report highlighted the lag in digital equipment and robotisation of companies (34,500 industrial robots were in service in France

compared with 62,000 in Italy and 150,000 in Germany)⁽⁴⁾⁽⁵⁾. The Investing in the Future Programme (PIA) initiated in 2010, continued. In addition, the French Pact for Growth, Competitiveness, and Employment was adopted on November 6, 2012, confirming the creation of Bpifrance at the "beginning of the year" in 2013, but also the implementation of a "Competitiveness and Employment Tax Credit" (CICE) to reduce corporate costs. Then, in order to create new and competitive industrial offers, the government launched 34 plans under the New Industrial France initiative in September 2013. These plans relate to energy issues, the future of transport, healthcare, robotisation, or, in digital technology, the commercial development of big data. Accelerating the digitisation of companies implies the need for efficient digital infrastructure. The Super-fast Broadband Plan was launched in the spring of 2013, with the goal of covering the entire country with super-fast broadband by 2022 (only 22% of companies had access in 2014). Finally, in 2014, the Responsibility Pact was approved. It was supposed to promote employment and investment by easing corporate contributions and constraints. In this context, the trend of eroding French market share in the export of goods was halted. These stabilised at just over 3% of the global market.

This period also marked the emergence of collaborative platforms in France with the creation of Uber France in January 2012 and Blablacar and Doctolib in 2013. Starting in 2014, the term "uberisation" showed the magnitude of the phenomenon and its disruptive potential for business models⁽⁶⁾. In order to develop start-ups and digital companies, France Digitale was founded in 2012. It supported the "Pigeon movement"⁽⁷⁾, which emerged with the protest of entrepreneurs to the 2013 finance act, whose tax measures they consider highly detrimental. At the end of 2013, La French Tech was established as an ecosystem of French startups, spearheaded by a government mission and sporting a red rooster emblem that played a crucial role in bringing people together. France was then inspired by the "*start-up nation*" model pioneered by Israel and quickly became the 3rd country with the most exhibiting companies at the CES, a prestigious technology show in Las Vegas⁽⁸⁾. However, at this time, the amounts raised by startups in France were still modest: in 2014, €897 million was raised in 372 operations, representing 10% of the total amounts raised in the EU and 17% in the number of operations (*compared* to 30% et 24% respectively for the United Kingdom). The digital sector accounted for 54% of the amounts invested, but biotech and medtech also accounted for a large number of fundraising deals⁽⁹⁾. The term "unicorn"⁽¹⁰⁾ appeared in 2013, but none were recorded in France at the time.

(1) See Bpifrance Le Lab surveys of SMEs. At the end of 2012, the proportion of VSBs and SMEs declaring easy cash flow during the last 6 months was 29 points lower than those declaring difficult cash flow (compared to 15 points lower on average historically).

(2) Growth Forecast Errors and Fiscal Multipliers, IMF, Working Paper No. 2013/1, January 2013.

(3) Source: Trendeo.

(4) The "*Étude prospective sur la modernisation de l'appareil productif français*" ("Prospective Study on the Modernization of the French Production System") by Roland Berger (2014) and the statistics of the International Federation of Robotics (2017) also point to the French lag in terms of robotisation: 132 units per 10,000 industry employees (18th in the world), far behind Korea (631 units), Singapore (488) or Japan (309). In Europe, France was outranked by Germany (309 units, 3rd in the world), but also by Sweden (223), Italy (185) and Spain (160).

(5) This lag is again highlighted in the agreement of September 29, 2014, between the government and the Bpi Group on the PIA Action "concerning the Investing in the Future Programme". "Robotics loans (loans for industry automation and robotisation)" (*The rate of robotisation of French SMEs / SMIs was much lower than that of German or Italian SMEs. The density of robots per production employee is therefore 1.5 times lower in France than in Germany in the automotive sector and four times lower in non-automotive industry*).

(6) On this subject, read "*Le numérique déroutant*" published by Bpifrance Le Lab, decrypting the phenomenon of uberisation.

(7) On 28 September 2012, in La Tribune, Jean-David Chamboredon, head of the ISAI fund and director of France Digitale, objected to the 2013 finance act, which notably involved a sharp increase in the taxation of capital gains on disposals. Strongly supported by entrepreneurs, this text ultimately resulted in the creation of a movement, the Pigeons.

(8) Consumer Electronic Show. From 2015, France ranked 3rd in the number of exhibiting start-ups after the United States and China.

(9) Source: EY Barometer of Venture Capital in France

(10) A start-up that reaches or exceeds one billion dollars in capitalisation during a fundraising round is referred to as a "unicorn" (a concept originating from the United States). Forbes magazine counted 140 in the United States in 2015; France exceeded 25 in 2022 - See below.

2015-2019

A more dynamic economic environment that favoured investments

In 2015, the economic context and policies became more favourable to growth in Europe and France After reaching a peak in mid-2014, the price of oil fell sharply. On the monetary side, 2015 was marked by the launch of the ECB's *Quantitative Easing* (QE), in response to the risk of deflation (inflation down to 0.6% for the euro area as a whole in January 2015 against a lower target but close to 2%) and of recession. The conditions for financing improved, both for the public and private sectors, and the euro depreciated. On the budgetary side, a paradigm shift took place, with the European Commission's decision to use the flexibility allowed by the rules of the Stability and Growth Pact (SGP) to support structural reforms and investment.

Against this backdrop, investment plans emerged to improve the competitiveness of European and French companies, particularly in industry. In Europe, the Juncker Plan (September 2015), extended until 2020, aimed to finance the implementation of innovation and investment projects within the European Union (EU). In 2015, the Industrie du Futur programme (Future of Industry programme), a French version of Industry 4.0, was created to address the country's digital technology integration and equipment lag. Its goals were to modernize production tools and digitize industrial companies. In 2019 was adopted the PACTE law, an action plan for the growth and transformation of companies. It involved a significant budgetary effort to replace the CICE with long-term reductions in contributions of an equivalent amount and to initiate a significant reduction in corporate tax (the standard rate was reduced from 33% to 25% between 2018 and 2022). These efforts to boost industrial competitiveness and the development of a French entrepreneurial ecosystem (combined with a €10 billion reduction in production taxes paid by companies in 2021), led to a net increase in the number of factories in France in 2017 and 2018 (+25 per year announced⁽¹⁾), dynamic business creations (up 6.1% on average per year between 2015 and 2019, excluding micro-enterprises, compared to 3.0% between 2012 and 2015), and the emergence of the first French unicorns (two in 2015 and five in 2019). The amounts raised by start-ups multiplied by six in the five years between 2014 and 2019, exceeding €5 billion over the year, reflecting a higher number of operations (doubled in 2019 compared to 2014) but, above all, higher average investments (€6.8 million in 2019 compared to €2.4 million in 2014).⁽²⁾ At the same time, the digital revolution continued with the emergence of numerous Fintech companies and the *blockchain* phenomenon⁽³⁾ gained momentum. The

latter's potential became increasingly clear, since the technology could address critical issues for companies, such as information security, instant payments, "smart contracts"⁽⁴⁾, or the authentication of participants. In France, the national blockchain strategy, presented on April 15, 2019, sets out a legal, accounting and tax framework that allows the use of blockchain for the transfer of financial instruments and the issuance of digital assets in a secure context. The Banque de France had also played a pioneering role by launching in 2017 the first blockchain launched by a central bank at international level to facilitate SEPA credit transfers.⁽⁵⁾

In 2015-2019, French economic activity was much more dynamic than in the previous period, averaging 1.6% per year in 2015-2019, with a peak of 2.4% in 2017. In Bpifrance's SME business surveys, the first obstacle to the growth cited by entrepreneurs was the labour shortage, with recruitment difficulties affecting 87% of VSBs and SMEs at the end of 2019; one out of two companies (49%) consider these difficulties to be "severe"⁽⁶⁾. Nevertheless, **the macroeconomic environment at the end of the period was quite uncertain**, in a context where the trend was rather towards protectionism, with a vote in favour of *Brexit* in May 2016, then a trade war involving the United States, China and the EU in 2018 and 2019, which was also marked by social protests in France. From 2018 on, in this context of trade and geopolitical tensions, international trade and global industrial production slowed. The European automotive sector was facing significant challenges due to the stricter regulations (such as the implementation of the WLTP test for European emission standards) and a slowdown in demand, especially from China. At the end of 2019, manufacturing production in Germany fell by 5.1% year on year, and in France, it fell by 2.9% year on year (respectively, an 11% and a 10.8% drop in automotive production).

Furthermore, ecological concerns intensified in 2015 with the COP 21 and the signing of the Paris Agreement to combat climate change. At that time, this issue was still far from being a priority for companies: according to a study by Bpifrance Le Lab⁽⁷⁾, 45% of employees stated that ecological and energy transition (EET) was not considered a priority by their company, and 57% of them declared that their company did not have any staff dedicated to energy and ecological issues. Even so, some sectors quickly faced difficulties related to their transition. In 2019, the inclusion of EET in public policies accelerated: the objective of carbon neutrality was included in the Energy-Climate Law adopted in November in France and in the Green Pact presented in December in Europe.

(1) Source: Trendeo.

(2) Source: EY Barometer of Venture Capital in France

(3) Blockchain is a technology for storing and transmitting information that is transparent, secure, and works without a central control body (source CNIL).

(4) "Smart contracts" are legal contracts automatically executed by inserting them in the form of computer programs in a blockchain.

(5) The MADRE project (awarding of the SEPA identifier in a few seconds via a blockchain) is an example.

(6) See 70th Bpifrance Le Lab survey for SMEs, January 2020.

(7) Bpifrance Le Lab, "*Croître avec la révolution écologique*" ("Growing with the Ecological Revolution"), November 2015.

2020-2021

The pandemic, an accelerator for awareness and transformation

The pandemic and the resulting restrictions deeply disrupted French economic activity, which fell by 7.9% in 2020 before rebounding sharply in 2021 (by 6.8%).

In order to maintain production and support recovery, France and Europe introduced economic policies of unprecedented scale and speed. The reaction of the ECB was immediate (the Pandemic Emergency Purchase Programme - PEPP - in response to the pandemic as early as March). The EU, with coordination between member countries, voted for an historically significant plan of €750 billion in July 2020, "*NextGenerationEU*", to deal with the economic and social consequences of the pandemic and support recovery. Partially funded by this plan, the InvestEU fund provided a €26 billion budget guarantee to support investment projects of financial partners and trigger private investment. This plan centralised all financial investment aid instruments to simplify procedures for economic operators. These plans, together with a reinforcement of the EU budget for 2021-2027, also aimed to strengthen research and innovation and promote climate and digital transitions. Furthermore, with the goal of easing access constraints to financing for viable companies with innovative projects but penalised by the pandemic, the European Investment Bank and the European Investment Fund created the European Guarantee Fund (EGF), endowed with a budget of over €24 billion. France also implemented measures to support the economy: State-guaranteed loans⁽¹⁾, 100% coverage of partial unemployment, creation of a Solidarity Fund to guarantee income for the smallest businesses and individual entrepreneurs, the €100 billion "France Relance" plan in September 2020, aimed at relaunching the French economy around ecology, competitiveness, and cohesion, and partly relying on financing by the European Recovery Plan. **The support measures largely cushioned the shock to households and businesses but at the cost of a significant increase in public debt** (up 15.1 points between 2019 and 2021 to 112.5% of GDP in 2021). In particular, the number of business failures dropped sharply against a background of improved business cash flow⁽²⁾, thanks to support schemes, especially the State-guaranteed loans.

At the same time, companies showed agility in modifying their organizations and business models to survive the lockdowns. In particular, they greatly accelerated their digital transition in a context of increasingly widespread e-commerce and remote working (46% of VSBs and SMEs authorised it at the end of 2021 compared to 27% before the crisis⁽³⁾). The investment by non-financial corporations (NFCs) in information and communication technologies (ICT) grew by 3.5% in 2020 while their total investment decreased by 6.9%. Moreover, it was particularly dynamic in 2021 (up 10.5%). The acceleration of digital technology, however, raised a new challenge: cybersecurity, the main source of concern among mid-sized companies managers (cited by 83% of them)⁽⁴⁾. As part of the France 2030 plan, the government launched the cybersecurity acceleration strategy with significant resources (€1 billion).

The supply difficulties that emerged from the strong post-pandemic rebound also highlighted the importance of the resilience of value chains and industrial sovereignty. In this context, the focus was on an industrial policy aimed at directing investment and innovation towards meeting the major challenges identified for the coming decades⁽⁵⁾. In 2020, the government launched a €150 million "French Tech Sovereignty" fund managed by Bpifrance to secure investments by French companies in sovereign technologies such as healthcare or cybersecurity. **Industry was supported by specific plans**, including the France 2030 plan, with a total amount of €54 billion spread over five years, of which €8.3 billion is devoted to securing supplies and €13.8 billion to supporting strategic industries (green hydrogen, low-carbon aircraft and electric vehicles). This plan included a new PIA (PIA4) of €20 billion over five years (twice the amount of the previous two programmes) for innovation, more than half of which is dedicated to economic recovery. In addition, the "Future of Industry" aid (over €2.7 billion) was created to support competitiveness and the industrial transformation (digitisation and robotisation).

After 10 years of support policies, France recorded net factory openings (120 in 2021⁽⁶⁾) and the number of salaried jobs in industry stabilised (0% change between 2015 and 2021 compared to a fall of 2.2% between 2012 and 2014). Additionally, in this context of accelerated digitisation of the economy and increased public support for innovation, 12 new unicorns were identified in two years. **With France 2030, the French government set objectives to achieve 100 unicorns by 2030 and to create 100 new industrial sites per year compared to the current trend by 2025.**

The pandemic period was also marked by the adoption of numerous laws in France and Europe in favour of ecological transition: adoption of the European climate law in 2021, promulgation of the French Climate and Resilience Law in August 2021, the France 2030 Plan in October 2021, and the law to reduce the digital carbon footprint in November 2021.

(1) Over 700,000 beneficiaries, totalling approximately €145 billion. The loan was granted by private banks, with the government guaranteeing 70% to 90% of the amount. Company registration under a unique identifier and the keeping of the guarantee register are ensured by Bpifrance on behalf of the French government, via a digital platform set up in a few days.

(2) The balance of opinions on the level of cash reserves hit an historical record at the end of 2021 in Bpifrance surveys of SMEs, which have existed for nearly 40 years. In addition, the State-guaranteed loan was retained "as a precaution" by a majority of the beneficiaries. It was necessary to wait until 2022 for the share of those who had used more than half of the granted State-guaranteed loan to exceed 50%.

(3) Source: Bpifrance, "*Télétravail – une pratique renforcée post crise sanitaire chez les TPE-PME*" ("Remote working - a practice strengthened among VSBs and SMEs after the health crisis"), June 2022.

(4) Source: Bpifrance, "*Enquête ETI 2022*" ("Mid-sized companies Survey 2022"), June 2022.

(5) "*DGE, France 2030, une réponse économique aux enjeux de demain*" ("DGE, France 2030, an economic response to the challenges of tomorrow"), November 2022.

(6) Source: Trendeo.

2022

Industrial sovereignty and ecological transition at the heart of our priorities

2022 was marked by the outbreak of the war in Ukraine. Supply difficulties (increase in input prices, particularly energy, rising transport costs, increased delivery times, shortages, etc.), due to the strong global post-Covid-19 recovery, were exacerbated by increased inflationary pressures in France and worldwide. Although inflation in France was lower than in all its European neighbours, it still affected nearly all products and reached 6.2% in October. To address the persistent threat of inflation in the euro area, and despite the uncertainties associated with the war in Ukraine, the ECB tightened its monetary policy for the first time in 11 years, with a 50 basis point increase in July followed by two 75 basis point increases in September and October, and a further 50 basis point increase in December. In this context, economic prospects dimmed, and cash flow indicators worsened.⁽¹⁾ Access to credit was still considered relatively easy at the end of 2022, but borrowing rates began to increase significantly⁽²⁾.

However, the war in Ukraine reinforced two beliefs: the need to re-industrialize in order to restore industrial sovereignty and accelerate the EET, especially as Europe feared possible gas and electricity rationing. The summer, marked by extreme weather events, added to the growing awareness of climate change. At the end of August, the government announced a €1.5 billion "green fund" to support local authorities in the ecological transition and urged companies to prepare an energy frugality plan.

Nevertheless, the objective of re-industrialising and accelerating the EET ran up against soaring energy costs (up 180% for natural gas and 195 % for electricity between the first half of February and the first half of December 2022). On the one hand, substitution possibilities for gas were limited in the short term, leading to the reopening of coal-fired power plants. With respect to reindustrialisation, the price gap for energy widened between Europe and the United States (natural gas spot price fluctuating between \$20 and \$25/MWh in the US compared to \$100 to \$150/MWh in Europe). The green reindustrialisation support plan adopted in the United States, through subsidies and their conditions of location-specific production⁽³⁾, raised concerns about European industrial competitiveness.

The French productive fabric therefore faces major challenges in the coming years, namely continuing on the path of digital transition and reindustrialisation, while ensuring consistency with the objective of carbon neutrality by 2050, especially through access to competitively priced green energy. All of this was in an increasingly inflationary environment weighing on margins and cash flow. For industry, the national low-carbon strategy (SNBC) was ambitious: a 35% reduction in emissions by 2030 compared to 2015 and an 81% reduction by 2050⁽⁴⁾. This would require significant gains in energy efficiency⁽⁵⁾, a high electrification rate⁽⁶⁾ as well as greater efficiency and frugality in the use of material⁽⁷⁾. Finally, the development and adoption of breakthrough technologies would be necessary in order to significantly reduce industrial process emissions. Alongside these objectives, energy production would have to be almost completely decarbonised by 2050 and would therefore require a significant development of decarbonised energies.

This implies significant investment needs for companies, as well as a strong innovation effort required for the transition. Public policies and regulations are already in place, particularly at European level. The "Fit for 55" package presented in July 2021 contains numerous proposals from the European Commission, including the introduction of a Carbon Border Adjustment Mechanism (CBAM)⁽⁸⁾, or the end of the sale of gasoline and diesel cars from 2035. The EU also has a key objective of increasing the production of renewable hydrogen by 2030. In the last few days of March 2023, during the finalisation of this report, economic forecasts have improved slightly compared to the end of 2022. Slight positive growth is expected in France and in the euro area. However, uncertainties remain at a very high level, as evidenced by the crisis that is beginning to affect the banking sector. So ten years later, the fears of facing a difficult financing context are strengthening. More than ever, governments, central banks, and all institutions responsible for economic development are on alert to limit the effects of crises and to provide support for entrepreneurs.

(1) See Bpifrance-Rexecode Barometer of September 2022.

(2) See Bpifrance, 76th business survey of SMEs, January 2023.

(3) The United States is investing nearly \$370 billion in clean energy development with the *Inflation Reduction Act*, which includes production subsidies. Those on green hydrogen would, for example, allow a steel manufacturer located in the United States to benefit from a hydrogen price four times lower than in Europe.

(4) See National Low-Carbon Strategy | French Ministry of Ecological Transition and Territorial Cohesion and French Ministry of Energy Transition (ecologie.gouv.fr).

(5) Estimated between 10% and 30% in 2030 depending on the sector and between 20% and 40% by 2050.

(6) From 38% of final energy consumption in 2015 to over 70% by 2050.

(7) With waste that will have to be almost fully recycled.

(8) This mechanism, likened to a border carbon tax, has a dual purpose: (i) preventing "carbon leaks", i.e. the relocation of industrial activities to places with less stringent environmental constraints and (ii) encouraging the rest of the world to raise its climate requirements. This mechanism comes with the removal of free quotas for European companies as part of the European carbon market (EU ETS).

**10 YEARS OF IMPACT
BY BPIFRANCE...**

...

OVERVIEW

02.

Chapter 2 aims to explain the measurable effects of Bpifrance's action on the French economy since 2012. To achieve this, it relies on all the impact assessment work carried out over the last ten years. These works are managed and produced by Bpifrance's Study and Prospective Evaluation Department (see box 1), often in collaboration with academic research teams. They are public and accessible, notably on the Bpifrance website⁽¹⁾. Additional indicators have been added for the purposes of this report.

Box 1
Evaluating the economic impact of Bpifrance's programmes

Over the past few years, Bpifrance has strengthened its ability to steer and produce impact assessment work, in response to the expectations of its shareholders, as well as the recommendations made by several reports⁽²⁾.

The assessment process set up and managed by a dedicated in-house team of economists is based on **3 fundamental pillars** of the scientific approach, which are **the systematic use of:**

- 1. **an empirical approach based on the exploitation of internal and external data on beneficiary companies;**
- 2. **proven methods** that enable an objective and rigorous assessment of the impact of business support schemes⁽³⁾ ;
- 3. and a governance which ensures **the transparency of the methodologies used (for reproduction purposes) and of the results. These research works are published on the Bpifrance website and, for some of them, in scientific journals.**

Ultimately, these analyses inform Bpifrance's strategic thinking, enlighten the General Management and Directors, and allow for discussions on the impact and efficiency of Bpifrance's public support programmes.

Empirical approach

A **study database records in a granular manner all support granted to Bpifrance's clients since the early 2000s.** This database has been available to researchers for several years (for Bpifrance-specific or other assessment works⁽⁴⁾), and has been supplemented by many other sources of data (Insee, DGFIP, Mesri, etc.), allowing for in-depth counterfactual analyses.

Proven methods

The methods used in the assessment work are based on the relevant standards. The aim of these works is to obtain an **empirical assessment of the additionality of the programmes by relying on robust quantitative methods** (statistical analyses, econometrics) based on the construction of a counterfactual that is as relevant as possible to estimate the causal effect of the programmes by limiting the selection bias as much as possible⁽⁵⁾.

Governance

There are several governance methods used for these works:

- The studies may be directly produced by Bpifrance's team of academics responsible for assessment work, or jointly produced with academic researchers as part of a research partnership. The works are overseen by a steering committee involving various institutions according to the themes (DGTrésor, DGE, Banque de France, OECD, France Strategy, etc.), as well as individuals from the scientific community.
- They may also be outsourced to researchers, with Bpifrance's support for the data collection and analysis stages.
- Lastly, the schemes operated by Bpifrance under the PIA framework are subject to external assessments managed by the SGPI in accordance with the rules defining the deployment of these programmes, and which Bpifrance helps to monitor.

(1) Bpifrance's impact assessments are available on the website <https://www.bpifrance.fr/dossier/impact-de-bpifrance>.
(2) Cour des Comptes, BPIFRANCE, une mise en place réussie, un développement à stabiliser, des perspectives financières à consolider (BPIFRANCE, a successful implementation, a development to be stabilised, financial perspectives to be consolidated), Thematic Report, November 2016.
(3) On the Maryland Scientific Methods Scale, classifying statistical work to assess public policies according to their robustness, they rank at level 3 and 4.
(4) The wider opening of Bpifrance data to the academic community is detailed on the CASD (Centre d'accès Sécurisé aux Données) website, a secure data access centre website.

(5) The understanding of the additionality of a public scheme consists in determining the extent to which the changes observed by its beneficiaries after support (i.e. favourable developments, such as the growth in the activity or employment of the companies, or the increase in financing resources offered to companies by private actors within the supported ecosystem, etc.) can be effectively attributable to the deployment of this scheme. In other words, it is about determining whether these beneficial changes would nevertheless have been observed, or not, if this scheme had not existed (or if such changes would have been of a lesser scope, or achieved less quickly, etc.).

The remainder of this chapter contains:

Initial contextual data on Bpifrance's actions and impact over the past 10 years, such as:

- financing nearly 535,000 companies for a total amount of approximately €260 billion in funding granted, in addition to €190 billion in export insurance;
- a significant impact on the French SMEs and mid-sized companies (with 40% and 60% respectively, supported at least once over the last 10 years);
- additional substantial growth in revenues and job creation for beneficiary companies compared to similar non-financed companies over 10 years;
- contributing to the creation of over 1,700 mid-sized companies in the same period.

An analysis of Bpifrance's impact on the French financing ecosystem for companies, based on its four key intervention principles, demonstrating:

- principle 1: a knock-on effect on other private funders with limited crowding-out effect;
- principle 2: a focus on the riskiest market segments while remaining an "informed investor";
- principle 3: the ability to reconcile the role of "patient" and "counter-cyclical" investor;
- principle 4: action throughout the country and close proximity to entrepreneurs; 95% of decisions are made regionally.

A presentation of Bpifrance's key results over 10 years focused on its main business lines, around 6 axes:

- axis 1: making France a nation of entrepreneurs *through* a range of support for the business creation / transfer that has expanded over the decade.
- axis 2: creating a continuum of financing for innovation: from the emergence of La French Tech to Deeptech plans and strengthening innovation in SMEs.
- axis 3: developing a range of specific loans to finance intangible investments that supplement the existing range of short- and long-term loans to SMEs.
- axis 4: launching and considerably enhancing an original offer of non-financial support services.
- axis 5: deploying a large-scale equity offer to companies both directly and through funds of funds to increase the competitiveness of the French economy.
- axis 6: increasing dynamic support for the internationalisation of French companies.

Lastly, an analysis of Bpifrance's impact on key sectoral and strategic issues for the French economy and its ability to leverage public and private resources efficiently in order to address these issues. This analysis details in particular:

- action to address major sectoral challenges over 10 years.
- transforming into a "Climate Bank" to help companies meet the challenge of the Energy and Ecological Transition (EET).
- the return on investment for the government shareholder, reflecting a parsimonious mobilisation of public resources.
- leveraging national, regional and increasingly European resources and, more generally, management on behalf of third parties to promote the transformation of the French productive fabric.

Bpifrance in 10 years

First overview of the action and its impact

EXECUTIVE SUMMARY

Over the past ten years, thanks to its toolbox of equity to debt financing, Bpifrance has supported over 535,000 VSBs/SMEs, and mid-sized companies with all of its programmes, helping inject around €260 billion in financing and €190 billion in export insurance into the economy. Overall, annual activity has doubled in 10 years.

More than 7 out of 10 beneficiaries are VSBs. The impact of Bpifrance's action has also been very strong on SMEs and mid-sized companies. Nearly 40% of the 153,000 SMEs identified by INSEE at the end of 2019, and more than 60% of the 5,900 mid-sized companies listed at the same date, have been supported by Bpifrance over the last 10 years.

The impact of Bpifrance's action on revenue growth, exports, R&D, employment and investment is regularly demonstrated by various evaluation studies, and amounts to an average additional growth rate of 6 percentage points in revenue (over the 3 years following support), 5 percentage points in employment growth, and 12 percentage points in export revenue (for support for internationalisation). For a cohort of companies supported in a given year, this represents €17 billion in additional revenue, €600 million in export sales, and 51,000 jobs created or maintained over a horizon of 3 years. In addition to these effects, there is also an impact purely related to an improvement in the sustainability of the projects supported.

Around 1,700 VSBs/SMEs supported over the period were mid-sized companies by the end of 2019.

EXECUTIVE SUMMARY

Bpifrance aims to energise and support the transformation of the French productive fabric. Under the terms of its founding law at the end of 2012 (see box 2), the merger of Oséo, CDC Entreprises and FSI⁽¹⁾ aimed to "contribute to the financing of loans and equity" of companies, with a one-stop approach to "supporting sustainable growth, employment and the competitiveness of the economy".

Bpifrance was created in a deteriorating macroeconomic context (Part 1) following a deep economic and financial crisis affecting France and the euro area. Companies reported cash flow difficulties and tight margins, while access to financing remained challenging. The economic recovery was slow, especially in industry, where companies seemed trapped in a vicious circle where margins and competitiveness erode in a self-reinforcing loop, as described in the Gallois report. The latter recommended **focusing on cost competitiveness, especially in wages, but necessarily accompanied by an increased effort on innovation** to restore the trade balance. Finally, with the **development of digital giants** and start-ups rapidly developing a global footprint, **all sectors seemed to be under the threat of "disruption"** by these new players relying on new digital tools.

In the face of these challenges, the logic behind Bpifrance's creation was to offer a one-stop complete financing toolbox, from equity to debt, for start-ups, VSBs/SMEs and mid-sized companies. Bpifrance's first assigned role was to be the actor that accompanied these companies throughout their life, from creation to transmission. These tools took the form of loans, credit guarantees from French banks, innovation support (three activities that were previously carried out by Oseo), as well as equity investments (direct investment in SMEs and mid-sized companies up to major groups, and in private equity funds *through* funds-of-funds investment, activities previously carried out by CDC Entreprises and FSI). **Later, Bpifrance added other tools to complete the continuum of financing offered to businesses,** especially a range of **international support schemes** (export credits, export credit insurance as from 2017), **reinforced support for entrepreneurship and creation** (through support for creation aid networks, as from 2019) the structuring of a **non-financial support offer** (advice, training, networking) that has been structured and strongly developed over the past 10 years, with the aim of strengthening the entrepreneurial capital and the performance of VSBs/SMEs and mid-sized companies.

(1) And FSI Régions, a subsidiary of CDC Entreprises and Oséo.

Box 2

Law no. 2012-1559 of 31 December 2012 on the creation of the Banque Publique d'Investissement

Art 1 A. -The Banque Publique d'Investissement is a public group dedicated to the financing and development of companies that support the public policies of the French central government and regions.

The bank encourages innovation, start-up, development, international expansion, company transitions and transfers with loans and equity financing to support sustainable growth, job creation and the development of a competitive economy.

It focuses its action on very small enterprises, small and medium-sized enterprises and intermediate-sized companies, and in particular those in the industrial sector.

It also makes targeted investments in long-term projects.

It supports the national industrial policy, particularly in support of sector development strategies. It contributes to the development of sectors of the future, digital conversion and the social and solidarity economy.

It supports the implementation of the ecological and energy transition.

It mobilizes the banking system to support the projects it believes in.

It collaborates with the European Investment Bank, where appropriate.

It develops services to support companies throughout their development.

It can stabilize the share-ownership of large companies that contribute to the growth and competitiveness of France's economy.

The article of law adopted in 2012 was subsequently amended on several occasions, particularly in 2021, in connection with the Rixain Act (law 2021-1774 of 24 December 2021 aimed at accelerating economic and professional equality). Following this amendment, it was stipulated that Bpifrance would provide support to companies committed to gender equality in the workplace, and that one condition for granting loans or equity financing would be the compliance with the obligation to publish the indicators referred to in Article L. 1142-8 of the French Labour Code annually.

Before delving into detail in the following sections on the bank's approach to intervention, the evolution of its toolbox, strategy and results in terms of impact on the economy, we can provide an initial assessment of the action taken in 10 years on the economic fabric through some key framework data.

During its first ten years, Bpifrance supported over 535,000 VSBs/SMEs and mid-sized companies⁽¹⁾ with all of its programmes, helping inject around €260 billion⁽²⁾ in financing and €190 billion⁽³⁾ of export insurance into the economy. The amounts contributed by Bpifrance increased from €17.3 billion in 2013 to €33.9 billion in 2022, **almost doubling in 10 years.**

71% of the support number went to VSBs. For the rest, nearly one out of three French mid-sized companies and over one in ten SMEs (excluding VSBs) have benefited from Bpifrance's support every year since 2013, all business lines combined. **In total, nearly 40% of the 153,000 SMEs identified by INSEE at the end of 2019, and over 60% of the 5,900 mid-sized companies listed at the same date, have been supported by Bpifrance over the last 10 years (i.e., until 2022).**

(1) Distinct. The number of financial supports is more significant, with some companies having been able to receive financing several times over the 10 years.
(2) These amounts do not take into account any non-recurring investments made with large holdings (equal to cumulative annual Bpifrance investments in excess of €200 million per investment). Exceptional equity interests of Bpifrance totalled €4.97 billion over the period.
(3) All export insurance support deployed in 2013-2022. Export Insurance activity was integrated by Bpifrance in 2017. These support measures have significantly increased over the period.

CHART 1A: BPIFRANCE'S ACTIONS BY TYPE OF PROJECT AND BY BUSINESS LINE, BETWEEN 2013 AND 2022⁽¹⁾

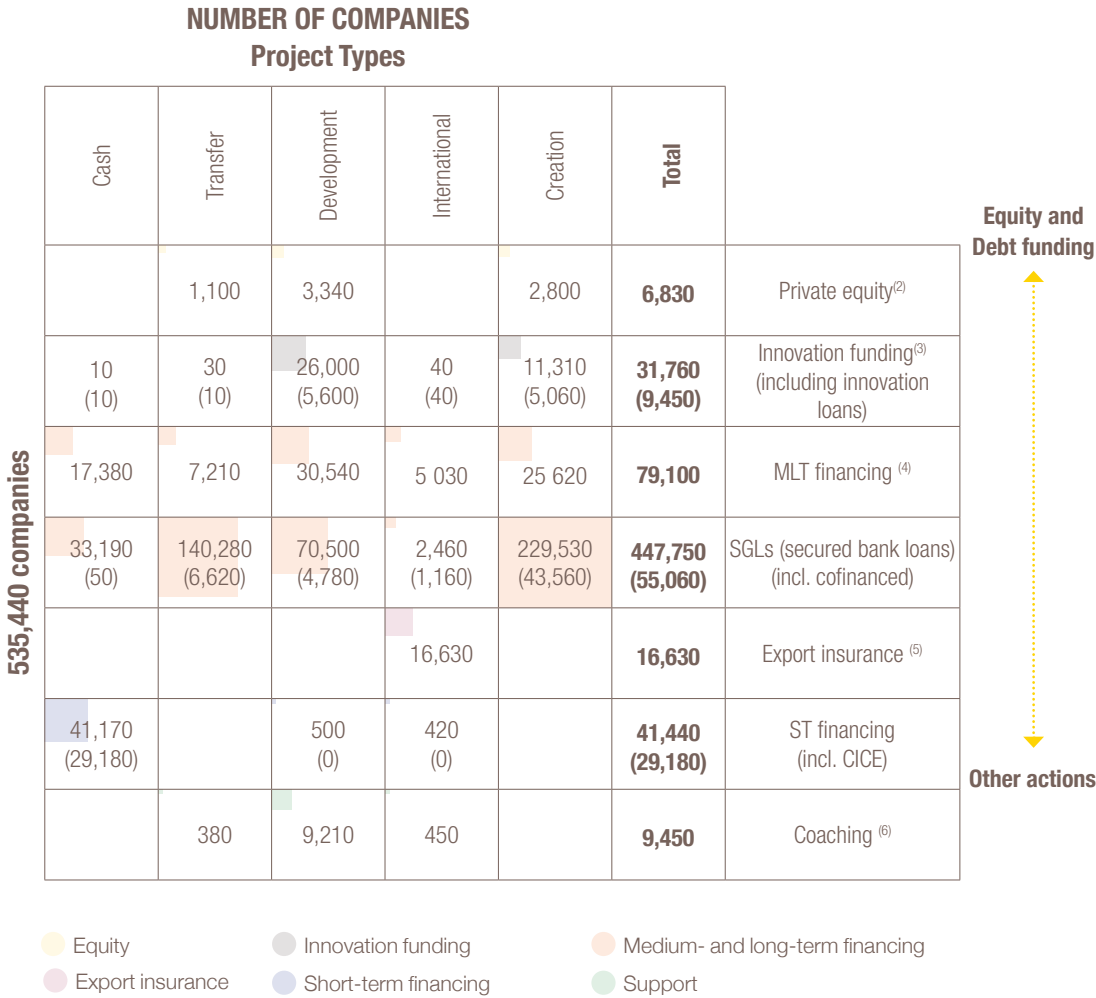
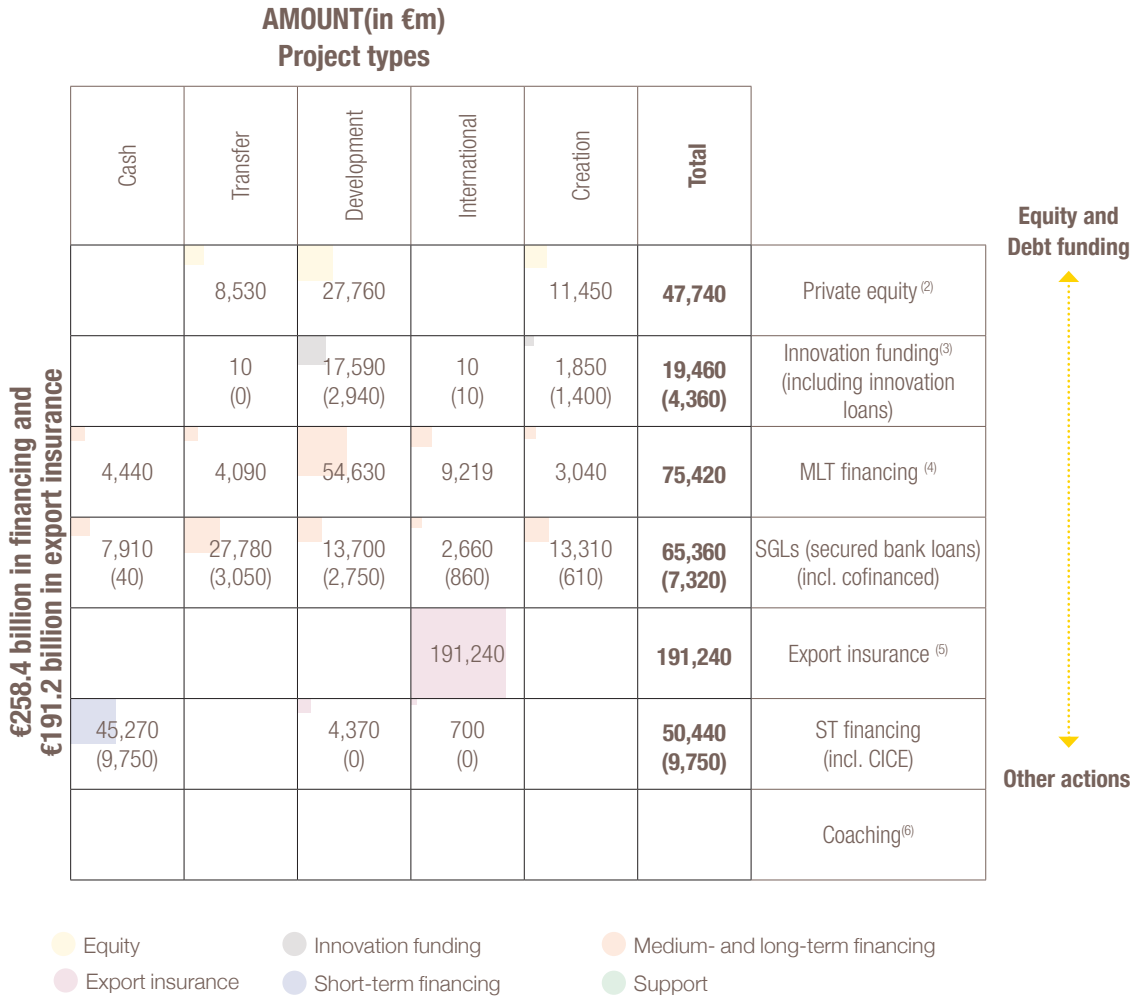


Chart 1A shows the distribution of Bpifrance's work through the various tools used, from equity to debt financing, without forgetting non-financial support. It **also gives a first overview of the distribution of these grants according to the main types of projects supported** (e.g. cash needs, creation, transfer, internationalisation or "development", i.e. financing for growth investments and innovation projects). **Chart 1B** shows the **distribution by company size of the** various tools. This provides a first glimpse of the specialisation of certain tools by company size (guarantees, in particular, being essential for supporting the financing of VSBs).

CHART 1A (continued)



Reading note: the size of each coloured square is proportional to the weight of each type of project/ type of instrument in the total (left-hand table for the number of companies, right-hand table for the amounts). For example, there are 140,280 companies that have received a transfer loan guaranteed by Bpifrance for a total of €27.8 billion in guaranteed loans.

(1) Excluding the activity of creation aid networks, when financial support is not provided (loans, guarantee, etc.). The final 2022 results are not known for the coaching and funds of funds activities, and the results presented are therefore an estimate for these two business lines.

(2) Private equity encompasses seed capital and venture capital (during the business creation phase), growth capital (to support the company's development) and transfer capital (to facilitate its sale) (Exceptional investments are excluded, corresponding to cumulative annual investments of more than €200 million for a single company, i.e. a total investment of €4.7 billion).

(3) Innovation funding includes individual funding (in the form of grants, refundable advances and no-interest loans), funding for collaborative projects and innovation loans.

(4) Consisting of investment loans that can be secured or unsecured for the entrepreneur when financing intangible assets, and leases (excluding secured bank loans).

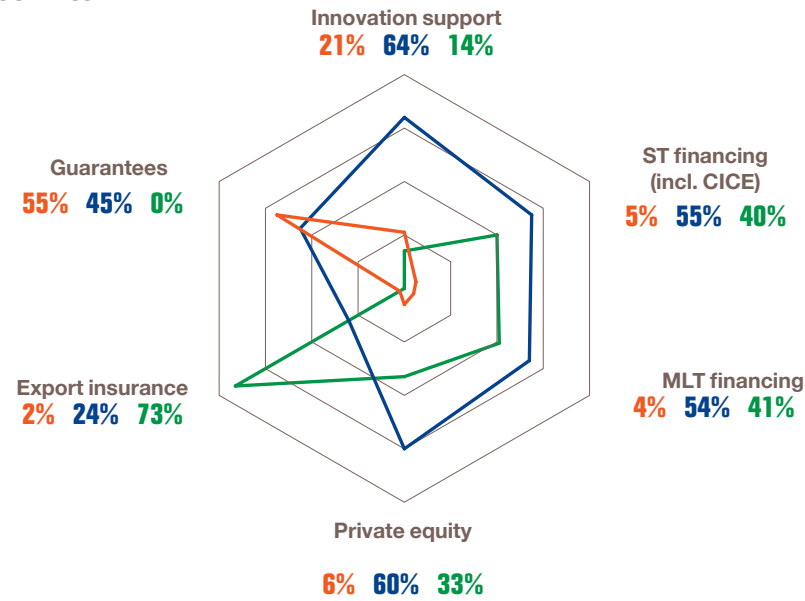
(5) Amount granted on export insurance products

(6) Companies supported through an accelerator program, consultancy services, or in-class university training (covering in particular the Diag'Actions and Diag'Inno).

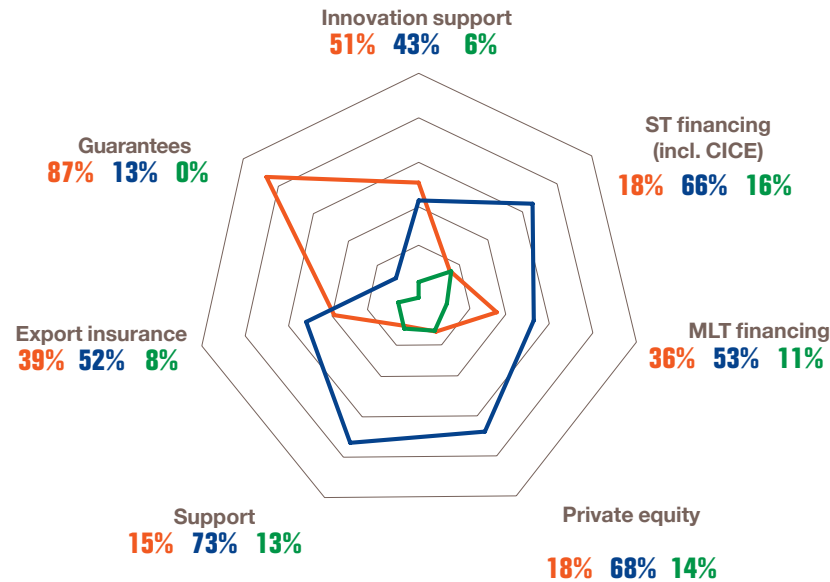
CHART 1B: DISTRIBUTION⁽¹⁾ OF SUPPORT BENEFICIARIES BY COMPANY SIZE AND SUPPORT TYPE BETWEEN 2013 AND 2022

Reading note: over the last 10 years, 51% of the companies receiving aid for innovation were VSBs (in red, bottom chart) and they received an average of 21% of the amounts (in red, top chart).

• IN TERMS OF AMOUNT



• IN TERMS OF NUMBER



● VSBs ● SMEs ● Mid-sized companies

(1) Excluding large companies, research laboratories, and companies of unknown size.

It is then possible to give a first aggregated view of the economic impact of all these actions, by using the annual indicators⁽²⁾ produced by Bpifrance. By comparing the trajectory of the cohorts of companies benefiting from Bpifrance to that of non-beneficiary companies with the same initial probability of accessing support⁽³⁾, there is an additional growth in revenue (additional annual growth rate over the 3 years following the support of an average⁽⁴⁾ of 6 percentage points) and in employment (up 5 points). The impacts are also tangible in terms of internationalisation, with an additional growth in export sales of around 12 percentage points per year. For a cohort of companies supported in a given year, this represents, in average, €17 billion in additional revenue, €600 million in export sales, and 51,000 jobs created or maintained over a horizon of 3 years. In addition to these effects, there is also an impact purely related to an improvement in the sustainability of the projects supported, (see chart 2).

Through its impact on the growth of companies, Bpifrance's financings contribute to many SMEs exceeding the threshold of 250 employees and thus become mid-sized companies⁽⁵⁾: among SMEs financed between 2009 and 2019, it can be estimated that around 1,700 companies⁽⁶⁾ had exceeded this threshold of 250 employees by the end of 2019, either through organic growth or mergers and acquisitions. The innovation capital activity enabled the emergence of more than 40 mid-sized companies through the funds managed by Bpifrance, and the creation of over 220 mid-sized companies by its partner funds operating in this segment. Moreover, since Bpifrance's creation, 56 SMEs that received direct investment in growth capital have become mid-sized companies following this initial equity investment.

These framework data provide an initial illustration of the impact of Bpifrance's action on the productive fabric over 10 years. The following sections discuss in greater depth the Bank's approach to intervention to meet the public policy objectives assigned, and its measurable impact on companies and the transformation of the French economy over 10 years.

(2) Available on-line on Bpifrance's website with their methodological support. See Bpifrance, *Impact of Bpifrance, Indicators 2021*, September 2022. These indicators apply the same counterfactual analysis principle used in more in-depth and one-off evaluations of large programmes (see box 1 and following sections for a discussion of their results).

(3) From their observable characteristics, which do not exclude residual selection biases, see methodological note available with the study. Programme evaluation studies, going in some cases further in the discussion and neutralisation of these biases, nevertheless tend to corroborate the results of this approach.

(4) Average over a long period, covering several support cohorts.

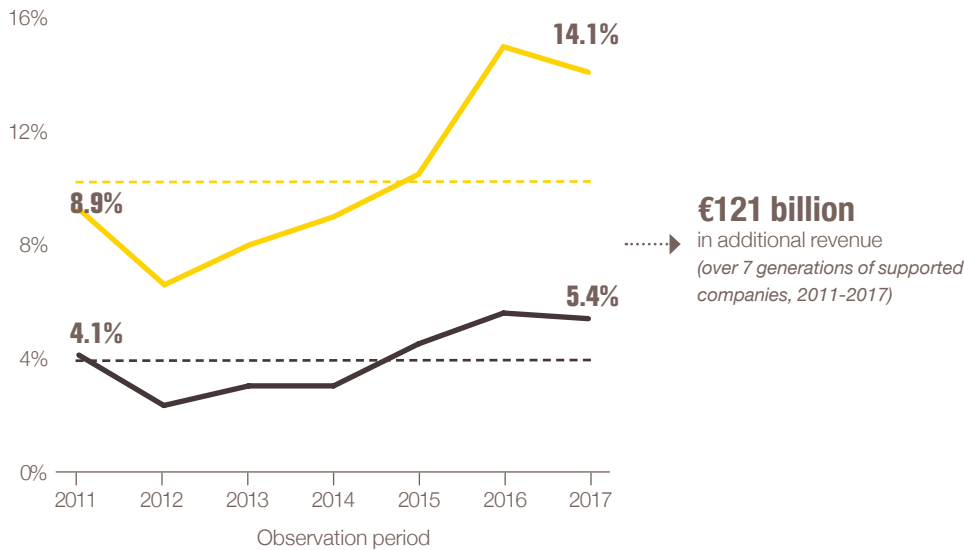
(5) Within the meaning of the Law on the Modernisation of the Economy (LME).

(6) This figure represents the number of companies supported by Bpifrance between 2009 and 2019, which then had the status of VSB/SME and that had the status of mid-sized companies in 2019. The calculation of size is consolidated at the level of the group of legal entities composing these companies. The estimate of 1,700 mid-sized companies corresponds to the number of mid-sized companies groups whose creation or consolidation was enabled by Bpifrance (for example, this list includes mid-sized companies that existed before the creation of Bpifrance, but which were able to absorb SMEs supported by the bank after its creation).

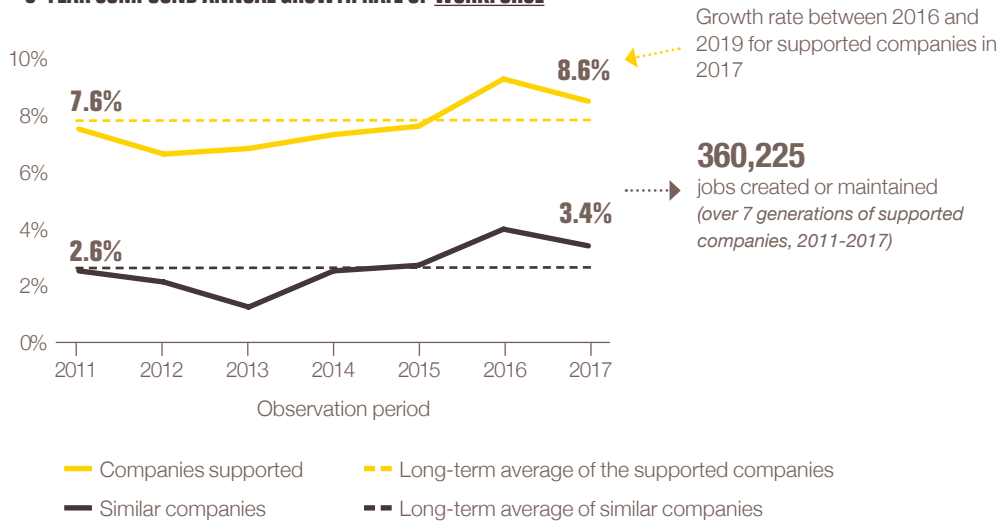
CHART 2: IMPACT OF BPIFRANCE SUPPORT ON TURNOVER, EMPLOYMENT, EXPORTS, AND THE SUSTAINABILITY OF BENEFICIARY VSBS/SMES, AND MID-SIZED COMPANIES.

Impact on turnover and employment - Support for investment projects⁽¹⁾

• 3-YEAR COMPOUND ANNUAL GROWTH RATE OF TURNOVER



• 3-YEAR COMPOUND ANNUAL GROWTH RATE OF WORKFORCE



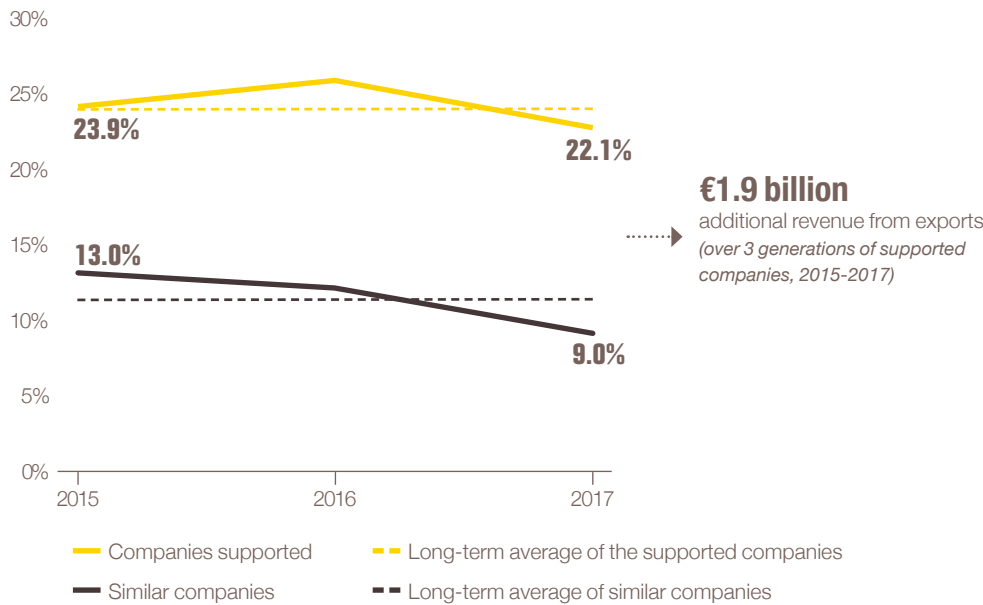
Note: Impacts were measured over the same population throughout the observation period: the effect linked to an improvement in the survival rate of supported companies is not measured here.
Reading note: in the first three charts, the yellow lines indicate the average growth rate of employment/turnover/export turnover for a given cohort of supported companies for the following 3 years. The grey line represents the same thing for a sample of companies with similar characteristics.

(1) Meaning, all support in credit, guarantee, equity, innovation grants, excluding cash flow support, support for creation and transfers-takeovers.

Impact on export revenue - Support for internationalisation projects⁽²⁾

• 3-YEAR COMPOUND ANNUAL GROWTH RATE OF EXPORT TURNOVER⁽³⁾

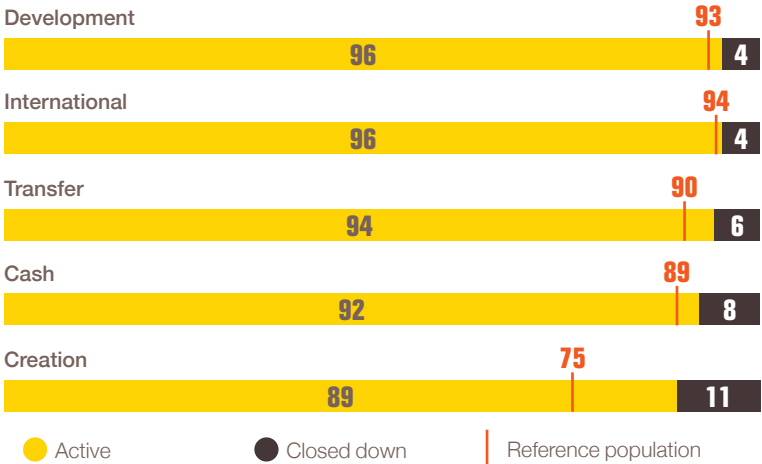
Impact of growth fund mechanisms for the international development of companies



Impacts were measured over the same population throughout the observation period: The improvement in the survival rate of the companies that received international growth funding is not measured here.

Impact on sustainability according to the type of support.

3-year average survival rate of supported companies



Reading note: 96% of the companies supported for their development projects between 2016 and 2018 were still active three years after the support, compared to 93% of initially similar companies not supported by Bpifrance.

Scope: all companies supported between 2016 and 2018 having published their balance sheet.

(2) Mainly credit and business development insurance

(3) The analysis considers only companies that are already exporting before they benefited from Bpifrance's support for their export activity throughout the analysis period.

An intervention doctrine

aiming to complete the private financing offer to French VSBs/ SMEs, and mid-sized companies, to meet their needs all over the country

Bpifrance aims to complete the private financing offer to stimulate the growth of the French productive fabric.

Its impact in this role can be assessed *through* analysing the four major principles of its intervention doctrine, which shows:

- a knock-on effect on other private funders, with limited crowding-out effect (principle 1);
- focus on the most risky market segments while remaining an informed investor able to generate significant return (principle 2);
- the ability to reconcile a role of patient and countercyclical investor whose imprint on the financing market has evolved with the economic climate (principle 3);
- a close proximity to local entrepreneurs and a great agility in meeting their needs through a strong regional network (95% of decisions are made regionally), appropriate communication and the development of a digitised offer (principle 4).

EXECUTIVE SUMMARY

Bpifrance is working to **encourage the emergence of a comprehensive and effective ecosystem of financing, investment and non-financial support for French companies.**

The legitimacy of public intervention in the financing market is largely based, within the theoretical framework, on the existence of market failures. This framework establishes that some corporate projects generally fail to find financing even though they are of value to the economy, which can happen when the risk associated with the project appears relatively high or difficult to quantify from the perspective of the private financier⁽¹⁾, when this project appears to be insufficiently profitable purely in terms of its bank processing costs⁽²⁾, or when it holds positive externalities that the private funder does not value⁽³⁾. These phenomena have been documented in numerous scientific studies⁽⁴⁾, particularly with regard to certain key stages in corporate finance such as their creation, transmission, deployment of research and development activities, or financing of their international expansion.⁽⁵⁾ **Market imperfections are not the only theoretical underpinning that can be used to justify public action. Justifications for a more "vertical" public support policy also exist.** The emergence of strategic sectors may also require proactive action to help create and structure markets, particularly *through* support for innovation in response to future societal challenges.

In practice, the existence of such failures is regularly debated, in an economic context that is itself evolving rapidly. As shown in the first chapter, the economic context in which Bpifrance has operated over the last ten years has changed significantly. The significant cash-flow difficulties of 2012-2013 have gradually eased, and the needs of companies have also changed (growing needs related to digitisation, decarbonisation, etc.), as has the financing offer. The risk associated with public intervention is one of possible crowding-out effects and "windfall effects", i.e. the improper deployment of public funds required to support business projects that would in any case have been financed by the private sector without public intervention. ***Ultimately, it is up to the evaluation to shed light on the additional nature of support schemes, allowing judgement on the existence or not of inefficiency in business financing, as proposed in this report.***

(1) Uncertainty or lack of visibility regarding the success of a project or innovation, financing of an asset with low collateral value offering little protection to the lender in the event of default by the counterparty, difficulty in measuring the company's future profitability or the quality of the project owner. A new product can be difficult to finance until it proves profitable: for example, wind turbines were poorly financed by the private sector in the 2000s, and are now more heavily financed by the private sector.

(2) A significant cost of collecting information and analysing small credit files, *effectively* limiting the bank's ability to handle such cases.

(3) That is, when this project benefits the community in ways that the private funder does not value during their decision-making process.

(4) The shortcomings of the private financing market have been documented in economic literature, from cyclical shortcomings such as access to bank credit made more difficult in times of crisis (as was the case during the 2008 financial crisis), or structural shortcomings when it comes to financing projects that bring added-value but are more difficult to finance for private actors (even in the high phase of economic cycles) because they are *a priori* deemed more risky. These elements are discussed in more detail in the following sections.

(5) Regarding the effects of public funding covered by guarantees, see for example OECD, "Evaluating publicly supported credit guarantee programmes for SMEs". For innovation grants, see, for example, What Works Centre for Local Economic Growth (2015) "Evidence Review 9 Innovation: grants, loans and subsidies".

The search for maximum impact on the ecosystem requires the definition of a framework for intervention. Although each support programme has its own characteristics, Bpifrance has an intervention doctrine that contributes to ensuring that **all its actions follow the same approach, aimed at triggering private financing for relatively riskier project types but which generate significant economic benefits**. More specifically, **Bpifrance's interventions are guided by four main principles⁽¹⁾** that can be summarised as follows:

- principle 1: Bpifrance aims to involve all financing partners for the benefit of companies, but without displacing the private sector;
- principle 2: Bpifrance provides financing to companies in their riskiest phases, while remaining an informed investor;
- principle 3: Bpifrance is a patient investor and can play a countercyclical role when required by the situation;
- principle 4: Bpifrance works closely with local communities.

PRINCIPLE 1

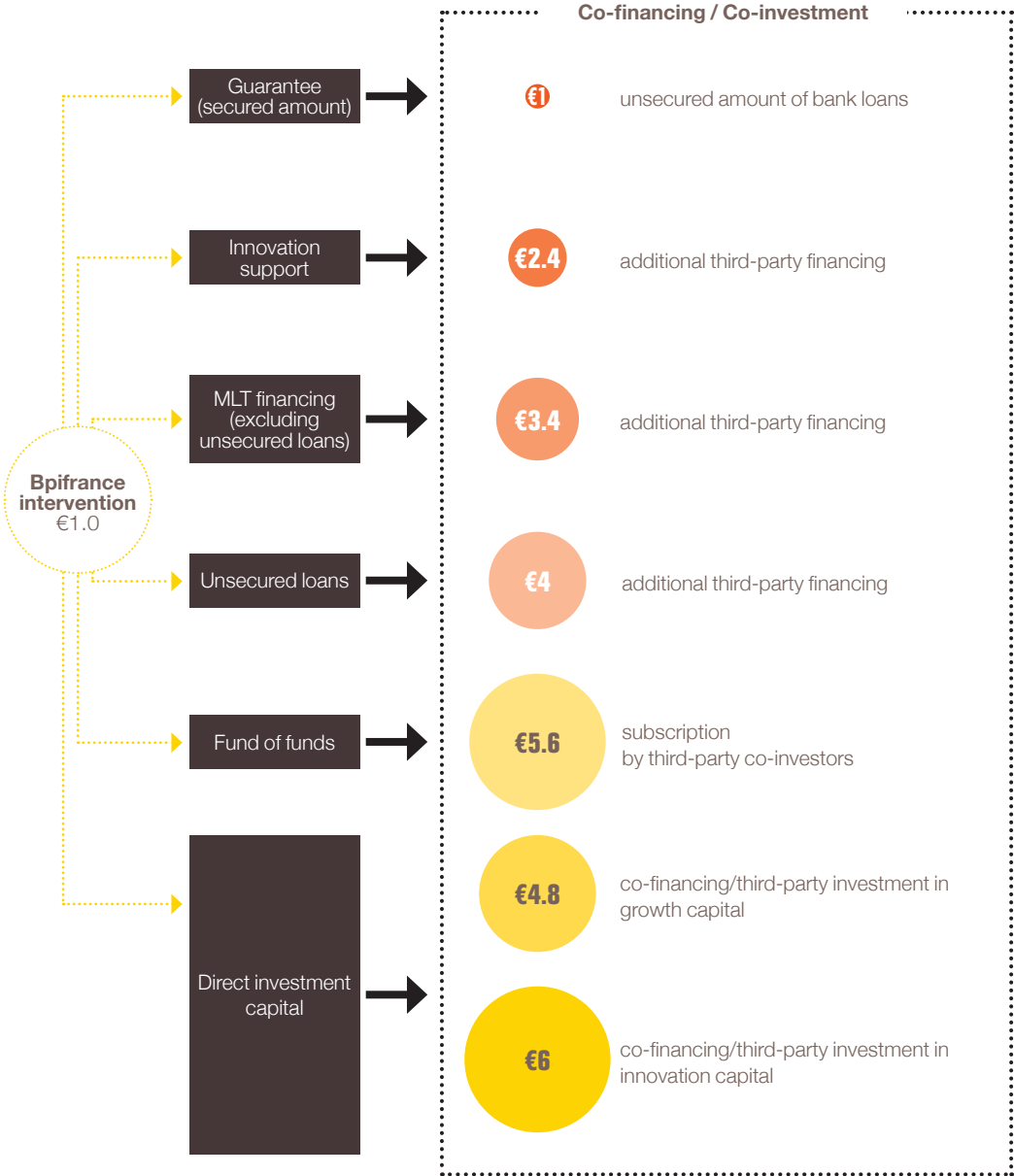
Bpifrance aims to involve all financing partners for the benefit of companies, but without displacing the private sector

Bpifrance's doctrine over the past ten years has been primarily focused on attracting private financing for projects perceived as more difficult to finance but that have real economic value. To achieve this goal, Bpifrance relies on a certain number of criteria for granting its support or on intervention rules. **Co-financing with private entities is systematically sought after:** investment loans are systematically granted subject to the banks providing additional financing equal to or greater than the amount offered by Bpifrance. Similarly for the rounds where Bpifrance invests in equity, always as a minority shareholder and in co-investments "pari passu" (on equal footing with other investors). The credit guarantee, whose decision is *ultimately* decentralised to local banks, aims to encourage an increase in private credit supply to VSBs/SMEs. The pricing of the various products plays a role in limiting possible crowding-out effect and optimising the impact on the overall financing offered to SMEs and mid-sized companies.

To illustrate this doctrine, Chart 3 shows the average co-financing/co-investment observed according to the different types of support offered by Bpifrance over the last 10 years. Whether in terms of financing innovation, credit, guarantees, equity investments ⁽²⁾ Bpifrance's financing is accompanied by *at least the* same amount of private funds, and often more⁽³⁾.

(1) See Bpifrance, Doctrine, 2014.
(2) Or the amount of risk covered, in the case of the guarantee mechanism.
(3) Regarding its non-financial support activity, Bpifrance relies on a network of private partners (near 1,000 consultants and experts, and around fifteen partner schools) enabling it to propose a high-quality offer and increase its scope of intervention. By selecting these participants and sharing its experience of management needs, the bank contributes to the structuring and skills development of the private market of non-financial support. The following sections focus in greater detail on the nature of this support offer.

CHART 3: AVERAGE CO-FINANCING BETWEEN BPIFRANCE AND THE THIRD-PARTY FINANCE PROVIDER, BY FINANCING TOOL, BETWEEN 2013 AND 2022



Reading note: €1 of Bpifrance aid for innovation translates into additional third-party financing of €2.4, resulting in a funded innovation project of 1 + 2.4 = €3.4. In the case of credit guarantees, the entire financing is private, with Bpifrance covering an average of 50% of the bank loan risk.

Empirical evidence produced as part of the evaluation of Bpifrance schemes can help to further develop and illustrate the impact in terms of the knock-on effect through the marketplace:

- **Impact assessments were able to accurately measure the additive nature of some schemes on the financing market**, both in times of crisis and high uncertainty⁽¹⁾ and in more favourable economic periods. This is **the case with credit guarantees**. A study of the start-up market (see box 3) established that an easing of **banks' access to guarantees results in a rise in their total credit production, even in a relatively favourable economic climate**⁽²⁾. This sheds light on Bpifrance's ongoing activity in the credit market over the last ten years, which, even as it adapts its scale to the business cycle (see next section), **addresses structural issues in accessing financing**, here for VSBs and SMEs. The feedback from beneficiaries interviewed tends to confirm the critical aspect of these guarantees on the entrepreneurial journey. The credit guarantee is also, in terms of the number of companies, the most frequently used tool (nearly 450,000 over the last ten years, see Chart 1).
- **The additional impact on the volume of financing was assessed more qualitatively in the case of unsecured loans**, an instrument heavily used over the last ten years to support the financing of intangible assets of VSBs, SMEs, and mid-sized companies (see axis 3 below for definition and description). Studies conducted in connection with the assessment of the Investment Programme PIA⁽³⁾ show, for example, that while **mature SMEs and mid-sized companies targeted by these loans often had satisfactory access to bank financing**, the public funds used were likely to serve relatively riskier projects and **tended in good proportion to increase the size of the projects or accelerate their deployment**⁽⁴⁾. **Additional impact on R&D financing was also highlighted for SMEs and mid-sized companies receiving innovation aid**⁽⁵⁾ (see axis 2 below).

Beyond estimating the additive nature of financing, **the very analysis of the specific characteristics of companies and projects supported by Bpifrance compared to the average profile of traditionally financed businesses is a good illustration of the complementary nature of Bpifrance's schemes relative to the scope covered by private financing institutions**. These elements reflecting the risk profile of companies and their projects are described in the following section.

Box 3

The impact of Bpifrance's creation guarantee on private credit production

This **study, co-produced by Bpifrance and researchers from HEC and Banque de France**, focused on easing the use of guarantees by French banking networks for bank loans between €100,000 and €200,000 that they wish to grant to newly established companies⁽⁶⁾. This easing took place between 2015 and 2016 during a period of economic recovery.

It shows that:

- **Easing access to guarantees by banks allows for an increase in the total production of bank credit**, as evaluated by the analysis of Bank of France's quasi-exhaustive data on credit production;
- The effect on total credit production is the combination of two effects: an increase in the production of **secured credit induced by increased use of the scheme, mitigated by a partial substitution between secured and previously unsecured credits**. Overall, the net effect measured on bank credit production from the easing of the use of the guarantee was estimated at between €67 million (a conservative hypothesis, the sum of a gross effect of €89 million and a substitution effect of 25%, or €22 million) and €142 million (high hypothesis) of additional total loans per year;

This effect was evaluated based on data reflecting a period of economic acceleration, suggesting that the scheme helps to close a structural failure in the credit market, i.e. that it is effective even when banks are not in a temporary situation of financial stress that leads them to reduce their credit offer (as was the case during the 2008 financial crisis and the resulting credit crunch). This market failure could be explained in particular by the fact that the analysis of credit requests from the smallest companies was apparently difficult to make profitable for banks (fixed costs for information and analysis of VSB/SMEs' credit files associated to a weaker banking product, compared to the cost derived from the production of credits for larger companies).

The study also estimates the public cost of the net impact of the program. **It turns out that the leverage of public funds is powerful. According to the results of the study, €1 of public funding in a guarantee fund would enable additional credit production of between €10 to €13**. The increase in the delegation threshold also resulted in an increased number of new banked companies (around 460 firms per year according to a low estimate), which created 1,380 jobs over a three-year period, representing **a capitalised public contribution of approximately €4,900 per potentially additional job**.

(1) See Barrot et al (2019) "Employment Effects of Alleviating Financing Frictions: Work-level Evidence from a Loan Guarantee Program".

(2) Gazaniol, Hombert, Vinas "Evaluation of Bpifrance Loan Guarantee Program: evidence from a natural experiment", Working paper, January 2022.

(3) See EY (2018) "Évaluation du dispositif Prêts Robotiques" (Evaluating the Robotic Loans scheme), EY (2016) "Étude d'évaluation à mi-parcours du dispositif des prêts numériques du programme des investissements d'avenir" (Midway Evaluation Study of the Digital Loans scheme for the Future Investments programme), Erdyn (2019) "Évaluation du dispositif « Prêts French Fab »" (Assessment of the French Fab Loans scheme).

(4) For the Robotic Loans scheme, the first components of the assessment conclude: "with this financing and the decrease in the cost of investments induced by the [rate] subsidy, the respondents accelerated the pace of completion and increased the volume of projects considered to be key by 80% of the respondents";

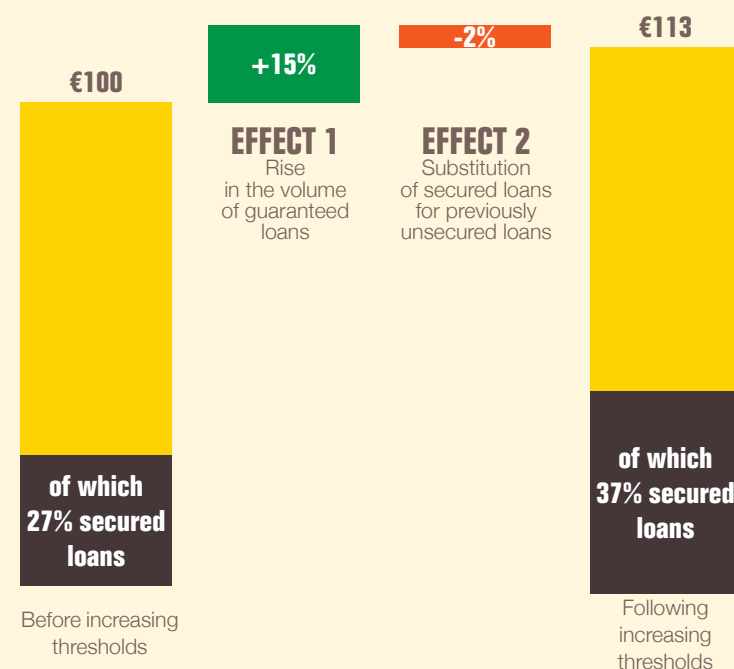
For the Digital Loans scheme, they conclude: "The digital loan, due to its flexibility and rate subsidy, had a strong incentive effect on the actual completion and acceleration of investments, the financing of which was certainly assured for many, but the timeliness less certain"; With regard to the French Fab Loan scheme, they concluded "the projects would have been less rapid, less ambitious and completed on less favourable terms."

(5) Brun, "Évaluation de l'impact des aides individuelles à l'innovation distribuées par Bpifrance" (Evaluation of the impact of individual aid to innovation distributed by Bpifrance), Oct 2020; Bellégo *et al.*, "Évaluation des aides aux projets de R&D" (Evaluation of aid for R&D projects), 2020.

(6) The decision to grant Bpifrance guarantees is largely decentralised to French banks. Below a certain threshold of credit amount for SMEs and mid-sized companies, they can have complete autonomy in the decision to grant this guarantee, in order to cover themselves against a risk that they do not wish to fully take on their balance sheet. This delegation of decision-making threshold increased from a maximum amount of €100,000 to €200,000 between 2015 and 2016.

IMPACT OF INCREASED DELEGATION THRESHOLD OVER €100 OF CREDIT PRODUCTION⁽¹⁾

(HIGH END OF ESTIMATED IMPACTS⁽²⁾)



Reading note: for every €100 of credit production before the thresholds were raised, we observe €113 of production after the thresholds were raised, i.e. an additional €13. This additional €13 production is the sum of €15 of additional guaranteed credits less €2 in unsecured credit.

PRINCIPLE 2

Bpifrance provides financing to companies in their riskiest phases, while remaining an informed investor.

If Bpifrance aims to trigger private financing, it is by seeking to target particularly **risky company or project profiles** (because they are difficult/expensive to analyse, particularly due to their innovative nature, with little possibility of relying on collateral, see above), **but whose project nevertheless has economic viability (informed investor principle)**. Over the past ten years Bpifrance, through its various tools, has sought to specifically target projects that promote growth and competitiveness of the French productive fabric (see previous for a detailed review). This positioning is illustrated through the profiles of companies and projects supported over the last ten years.

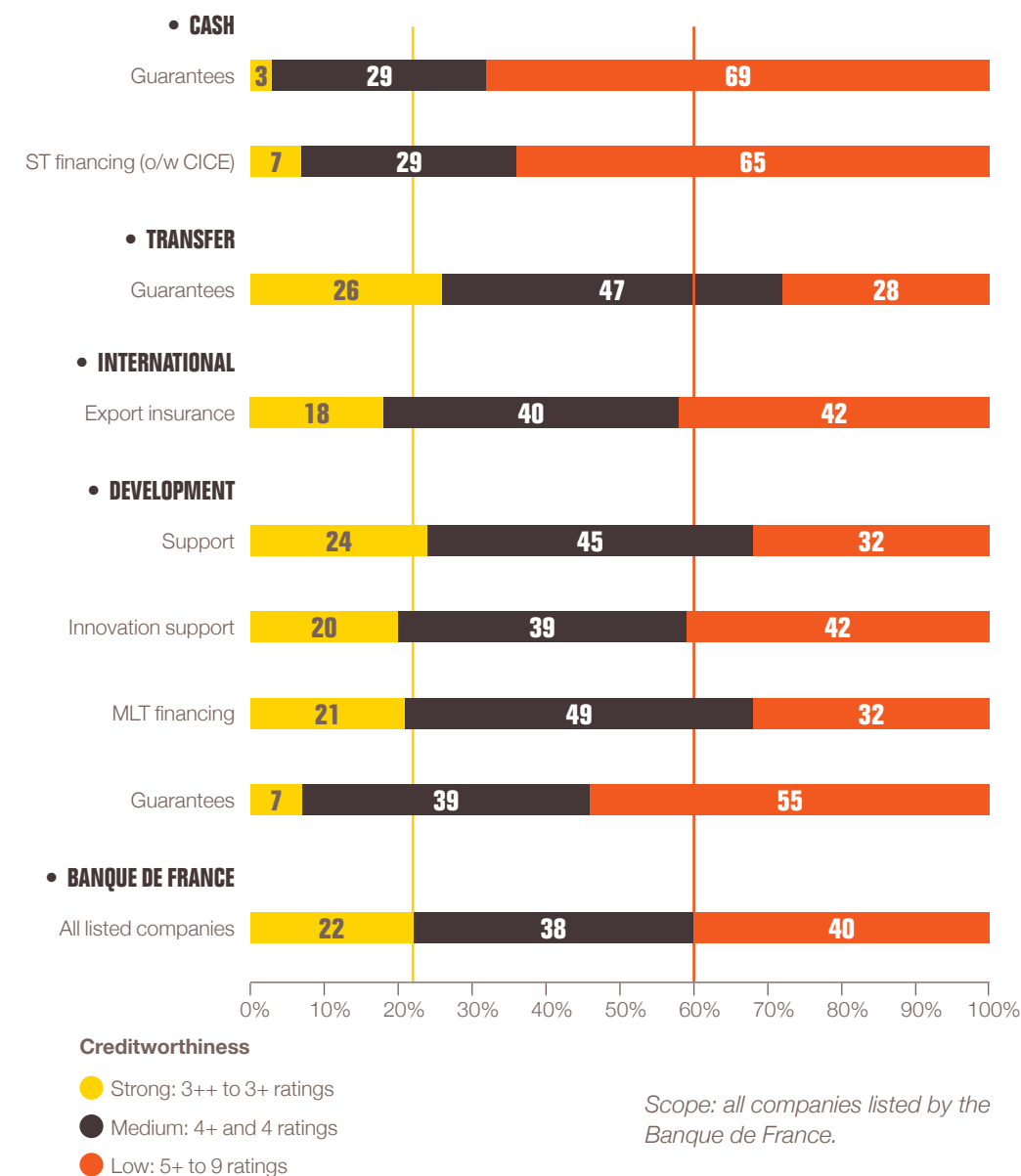
(1) For newly established companies on the loan tranche of €100,000 to €200,000.

(2) Estimations do not take into account the fact that the additional loans distributed in the €100,000 - €200,000 tranche have partially replaced the credit volumes distributed on the adjacent amounts (€50,000 - €100,000 and/or €200,000 - €300,000).

An initial approach may be to look at **companies' credit risk rating**. Chart 4 below is based on the Banque de France rating, within the scope of the companies for which this rating is available: here we can see that a **large number of schemes target companies with a riskier credit rating than the average of companies rated by the Banque de France**.

CHART 4: DISTRIBUTION OF COMPANIES SUPPORTED BETWEEN 2013 AND 2022, ACCORDING TO THEIR RATING BY THE BANQUE DE FRANCE

Average breakdown of companies by level of creditworthiness



Reading note: the distribution of the beneficiaries of the Bpifrance Treasury Guarantee (first line of the chart) is 3% in strong solvency (yellow), 29% in average solvency (taupe) and 69% with weak solvency (red), whereas average solvency for all rated companies is 22%, 38% and 40% respectively (last line of the chart, represented by the yellow and red verticals).

However, this approach needs to be supplemented by a more in-depth assessment. Firstly, because many companies, especially VSBs, are not rated by the Banque de France. Secondly, because support may target not a risky company⁽¹⁾ but a risky project⁽²⁾, for example, an innovative one, even when it is owned by a company with a solid balance sheet. **Various indicators make it possible to assess the risk profile of companies/projects in Bpifrance's interventions:**

- Regarding **supports for business creation**, which involve granting guarantees to banks for loans to business creators, the profile of supported entrepreneurs is more focused on first-time creators (71 % of beneficiaries vs 63% of business creators, for whom banks do not use the Bpifrance guarantee), towards entrepreneurs seeking employment (40% vs. 27%) and more likely to lack their own resources or collateral to start up.
- The **remaining creation projects** supported are eligible for innovation aid or capital investment, and are by definition highly risky and high-potential projects. When **support for innovation** concerns companies that have surpassed the creation stage, internal works also suggest that innovative SMEs supported are more frequently associated with financing constraints than other innovative SMEs⁽³⁾.
- As far as **transmission** is concerned, the findings are the same. Much of the action involves granting guarantees to banks, which tend to use it on riskier buyer profiles than the average⁽⁴⁾. In general, guarantees are a favourite instrument of banks to develop small loans associated with promising but costly-to-analyse projects and/or with a risk profile higher than average⁽⁵⁾.
- Regarding **export support**, the supported companies also have a risk level that is higher than comparable companies⁽⁶⁾.
- Regarding **medium-long-term financing**, the risk profile does not necessarily appear in the company's balance sheet but in the profile of the financed asset. This is particularly the case **for financing intangible** assets, which covers the non-pledgeable part of SMEs and mid-sized companies investment plans (see following sections).

In the end, Bpifrance is indeed a "risk moderator" for the financing ecosystem, permitting an increase in the amount of capital available to companies. This ability to share the risk is due to the nature of Bpifrance's work, as it operates using its own funds and by managing a certain number of financing programmes on behalf of third parties, including the Investment Programme PIA⁽⁷⁾ (see end of chapter). This distinguishing feature makes it possible to address a wider range of risks than the bank's balance sheet could bear on its own.

However, this targeting of less well-financed risk profiles in the marketplace does not come at the expense of performance, as one of Bpifrance's key objectives is to remain an informed investor. The following sections illustrate the favourable economic effects of these actions, both from the point of view of the beneficiaries

(1) Either through traditional solvency analysis based on balance sheet ratios.

(2) Or by assessing the future success of the project, for example in the case of an innovative project, which can by definition be very difficult to assess, or because the financed asset offers little security to the financier (e.g. intangible assets or low-value assets).

(3) According to INSEE data, 31% of innovative SMEs in the manufacturing industry sector over 8 years old and who are Bpifrance customers state that they are lacking internal financial resources to develop their innovation investments. This figure is equal to 18% when these SMEs are not Bpifrance customers.

(4) See the impact study on transmission support (Lê, 2022). In particular, buyers who benefit from the guarantee are usually first-time creators (77% for beneficiaries of the guarantee compared to 73% for non-beneficiary buyers), are more frequently short-term job seekers (21% vs 12%) and more frequently report experiencing financing difficulties (39% vs 28%).

(5) Gazaniol, Lê, *The Impact of Public Loan Guarantees on Banks' Risk Taking and Firms' Growth: Evidence from France* Economie et Prévisions, 2021. Companies benefiting from the development guarantee are generally younger than the median age of nine years, compared to 12 years for eligible companies who are not supported), and show a relatively dynamic growth before support, while also associated with greater financial debt.

(6) For example, for export bond insurance and working capital insurance, supported companies have a lower profitability than comparable unsupported companies (EBIT/Turnover ratio on average 2 points lower) and a lower capitalisation (an 8-point gap on average for the ratio of equity to assets).

(7) But also the Regions and Europe.

of the support (companies, banks, investors, and generally local authorities) **as well as from the point of view of public finances.**

PRINCIPLE 3

Bpifrance is a patient investor and can have a countercyclical role when the situation requires it

Against a macroeconomic backdrop that has changed sharply over the last 10 years, **the investment needs of SMEs and mid-sized companies and their access to finance has also changed. As a result, the weight of Bpifrance on the financing markets** (credit market for loans and loan guarantees; private equity market for equity investments) **is changing.** This is the second role of Bpifrance, which is to be a resilient player, "able to act contracyclically during times of crisis, or to develop the strategic sectors of tomorrow". This countercyclical nature of the Bank's action in the SME financing and investment market can be illustrated by an analysis over time of Bpifrance's footprint in these markets.

In **the credit market** (chart 5A):

- The **first years of Bpifrance** (2013-2014) were **difficult years for SMEs and mid-sized companies in terms of their access to financing** after a financial crisis and a euro area crisis that weighed on the French economic climate (see Part 1). Credit was particularly stagnant. **Bpifrance's investment loans**, which focused on reviving the momentum of the production sector and contributed to the restoration of its competitiveness, **saw their weight increase**, in particular with the ramp-up of financing for intangible assets. **For short-term credit, Bpifrance was active in prefinancing the new Tax Credit for Competitiveness and Employment (CICE)**, a scheme that benefited nearly 25,000 VSBs/SMEs and 4,970 subsidiaries of mid-sized companies (i.e. 2,000 separate mid-sized companies) for €7.2 billion in financing.
- **Starting in 2015**, in particular with the *quantitative easing* of the ECB, French credit production resumed and **Bpifrance's weight naturally decreased.** Investment credit production continued to increase, both in terms of financing intangible assets but also for other medium to long-term loans, including the financing of the production capacity of renewable energy. But this growth was less rapid than total credit production by the market. On the short-term credit side, the prefinancing of the CICE was gradually eliminated with the changeover of the CICE towards a reduction in social security contributions, but also with less acute cash flow difficulties.

- With the pandemic, 2020 was quite unique:

- **The credit market was dominated by the distribution of State-guaranteed loans, which were quickly set up by the French government, Bpifrance and the banks** (approximately €145 billion of state-guaranteed loans were distributed to over 700,000 beneficiaries, representing approximately 30% of the loans to companies issued in 2020). Bpifrance's experience in managing a guarantee distributed largely through banking networks contributed to the speed of mobilisation of the French government and the banking sector in response to an extreme situation for businesses.
- **Bpifrance also quickly designed and implemented a specific range of loans to cover all exceptional cash flow needs of VSBs/SMEs, and mid-sized companies** that arose during the crisis, sometimes in advance and in addition to the state-guaranteed loan. These include the "Prêts Atout" (Atout loans) and "Prêts Rebond" (Rebound loans) (which represented over €3 billion in financing in 2020), which were supplemented by products specifically targeting the most hard-hit sectors (such as "Prêts Tourisme") or the preservation of investment capacities in key areas ("Prêts Soutien Innovation"). Here too, the extensive experience accumulated over 10 years in structuring and distribution of intangible and working capital financing products was valuable in order to effectively meet the needs in times of crisis.

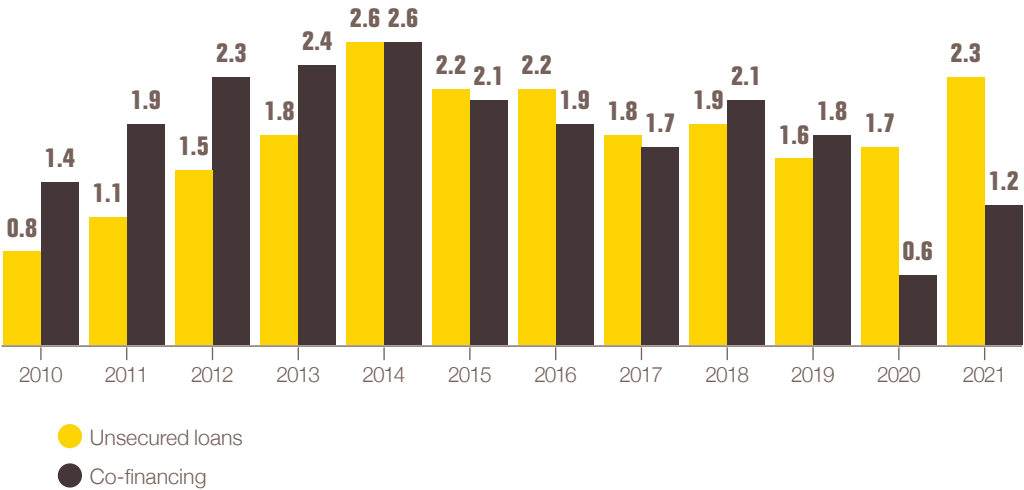
The coverage for guarantee programmes follows the **same profile over the 10 years** (Graph 5B):

- **The rate of loans for which banks requested a guarantee increased until 2014 before declining until 2019 with the rebound in the credit market.** Guarantees remain mobilised on structural issues relating to access to credit (creation, transfer or investment essentially of VSBs).
- **In 2020 and 2021, the implementation of the state-guaranteed loan increased the role of the government's guarantee** in favour of corporate credit in the context of the pandemic, even expanded to include mid-sized and large companies. The guarantee became a favourite instrument for stabilising the credit market as had already been the case in 2008-2009, at the time of Oséo⁽¹⁾.
- **A study shows the significant impact of stabilisation that these schemes may have in times of crisis, for example in 2008-2009⁽²⁾.** According to the study, the programme preserved an average of 31,000 jobs per year between 2009 and 2015, and once the savings from unemployment insurance were taken into account, the net impact of the scheme on public finances was considered positive. Regarding the state-guaranteed loan, even if there is not yet sufficient distance, the initial items in the assessment report also seem positive⁽³⁾. **Crisis after crisis, the guarantee is emerging as an effective tool to support access to financing for VSBs/SMEs that Bpifrance is able to implement in a reactive manner with the banking sector.**

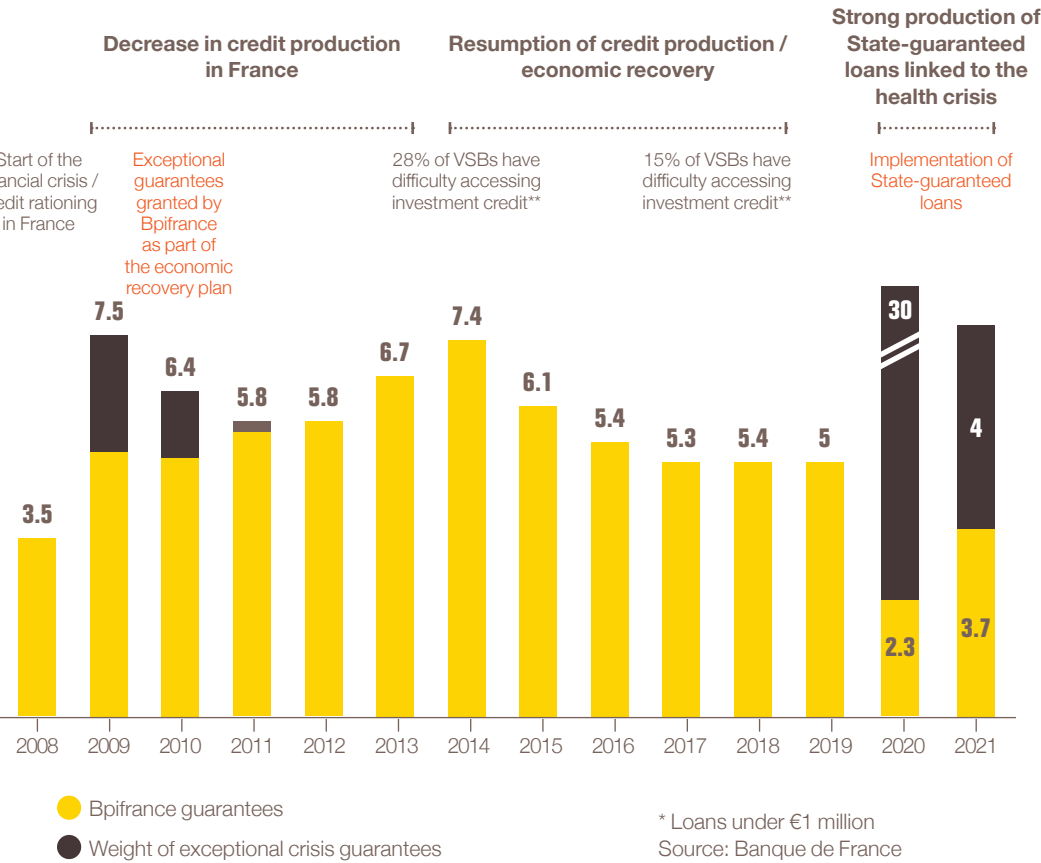
(1) The guarantee scheme of the Recovery Plan aimed at covering short-term credit lines granted by banks at the time of liquidity dried up in the markets. This guarantee scheme benefited more than 20,000 companies between 2008 and 2010, for over €5 billion of bank financing deployed.
 (2) Barrot *et al.* 2019.
 (3) Monitoring and Evaluation Committee for financial support measures for companies facing the COVID-19 epidemic - Final report, July 2021.

CHARTS 5A AND 5B: CHANGE IN BPIFRANCE'S WEIGHT IN THE CREDIT MARKET

Impact on the investment credit market
 (% of new fixed-rate MLT credit flows on non-financial companies)



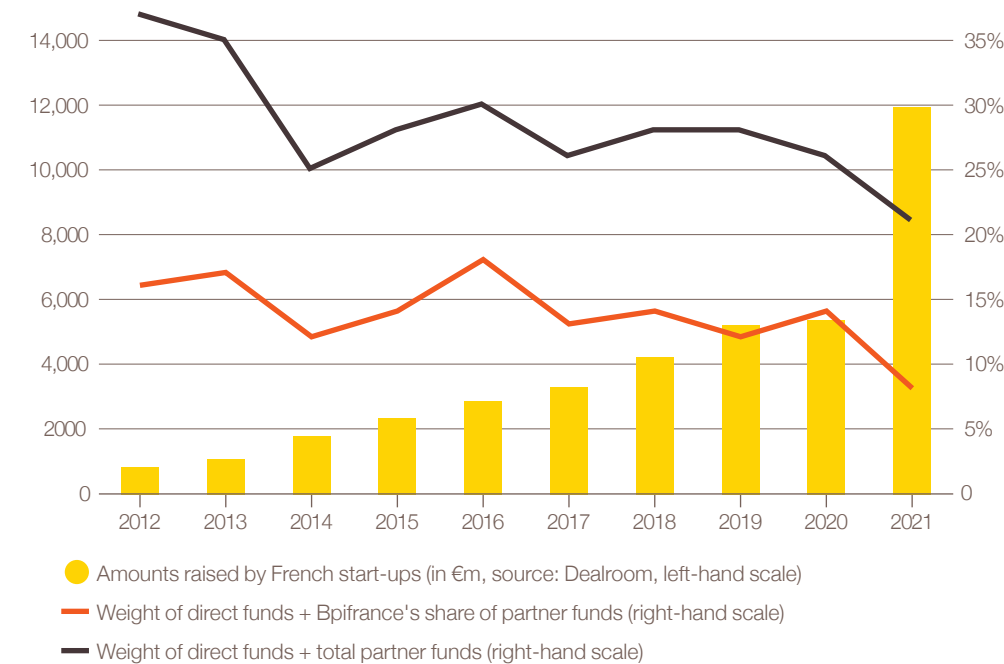
Weight in the production of credit to SMEs*



Concerning **the private equity market**:

1. The **development of direct investment in CDC Entreprises and the FSI in the late 2000s was part of a countercyclical** approach and aimed to alleviate the difficult market environment for private funds following the financial crisis⁽¹⁾.
2. In addition to the countercyclical approach, direct investment was mobilised to explore investment themes or to develop market segments that had little if any development before a more systematic, but slower, approach of funds of funds.
3. **Bpifrance also increased its activity in funds of funds by concentrating resources on the most promising teams with the ambition to raise large funds.** This proactive action in the venture capital segment **resulted in a short-term increase in the weight of financing injected** by Bpifrance into the amounts raised by French start-ups until 2012-2013. This weight then stabilised during Bpifrance's early years and even increased slightly in 2016, **before declining with the development of the ecosystem and of private financing sources.**

CHART 6: CHANGE IN BPIFRANCE'S WEIGHT IN THE AMOUNTS RAISED BY FRENCH START-UPS – "HIGH" ESTIMATE⁽²⁾



Source: Bpifrance data, Dealroom. Includes all fundraising, including in the "growth capital" segment.

Beyond the countercyclical nature of its action and the response to situations of contextual crisis, **Bpifrance seeks to support SMEs and mid-sized companies, up to large groups, over the long term.** At the core of the doctrine, this characteristic of being a "patient" investor is often recognised by the business leaders as a support and a safe way to strike a fair balance between profitability and long-term construction.

(1) There was a contraction in the collection of management companies (in particular from institutional investors such as banks or insurance companies) priority was given to refinancing the portfolio rather than new investments.
(2) These figures should be viewed as a high estimate because it is assumed that all deals made by Bpifrance and its partner funds are recorded in Dealroom's data, with an amount entered (though only a portion actually is – about half).

This is reflected in the relatively longer holding period for equity interests invested by Bpifrance than that of private funds operating in the market⁽³⁾. This desire to support entrepreneurs over the long term is also reflected in the very nature of the capital support offer proposed by Bpifrance, structured as a continuum in which invested companies can progress as they go through the various stages of their growth: some investments initially supported by innovation capital were thus able to unlock their full growth potential with the support of growth capital funds, sometimes reaching unicorn status (Doctolib, Swile, etc.). More specifically, Bpifrance is able to hold very long-term positions in support of large strategic holdings (Large Cap activity), in order to meet crucial issues of sovereignty, such as supporting key sectors for the country's future (energy, semi-conductors, security, etc.). This is reflected, in particular, by 7-year ownership assumptions within the Lac1 fund, as well as the conditioning of the investments made by this fund on the presence of Bpifrance teams on the *boards* of target entities⁽⁴⁾.

PRINCIPLE 4

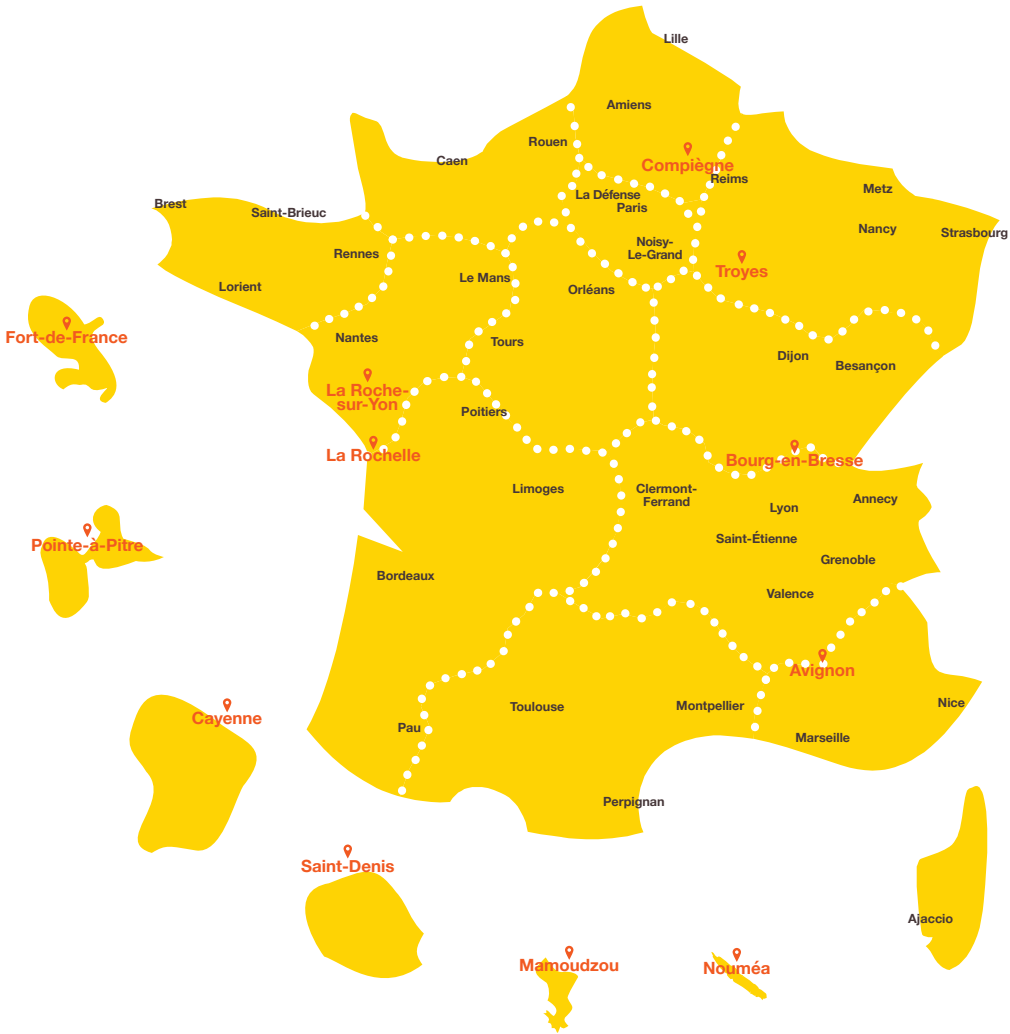
Bpifrance relies on its regional network to work closely with local communities

An action based in the regions and in close proximity with entrepreneurs thanks to a dense network of regional offices and partners

Bpifrance's action is fundamentally anchored locally throughout the country. First of all, financing decisions are highly decentralised: all credit files are first assessed locally, and 95% of them are decided on in the region thanks to a network covering the whole of mainland and overseas territories⁽⁵⁾. Beyond credit, all Bpifrance's business lines are represented and distributed through this network. Such organisation facilitates Bpifrance's proximity with managers of VSBs/SMEs and mid-sized companies, and provides a rapid and tailored response to the financing needs of companies. The regional network of **agencies has strengthened over the past decade, from 37 local offices in 2012 to 49 in 2022** ⁽⁶⁾(Chart 7A). At the same time, the network's workforce has been considerably strengthened, from around 1,000 employees in 2012 to 1,400 in 2022. **This capacity to be in contact with entrepreneurs across the country has enabled the rapid dissemination of public support offers as they have developed over the last 10 years⁽⁷⁾.** The account manager, with the support of all the Bank's business lines⁽⁸⁾, is a point of contact who can engage in strategic dialogue with business leaders to guide them towards appropriate solutions to stimulate their growth. This capacity and proximity are often highlighted by executives in their feedback. This proximity was also showcased in the early days of the pandemic⁽⁹⁾.

(3) This holding period is approximately 7 years for investments by Small and Mid & Large Cap funds, Bpifrance mobilising equity-type instruments and targeting non-listed underlyings, compared to a norm of 4-5 years for private equity funds aiming for equivalent targets.
(4) See detailed sections below.
(5) Except for export credit, application processing and loan disbursement are carried out at the regional level.
(6) Openings of offices since 2013 in Avignon, La Roche-sur-Yon, La Rochelle, Bourg-en-Bresse, Compiègne, Troyes, and six offices in overseas territories.
(7) For example, support for export credit insurance from 2017 onwards, a support offer that has multiplied after an initial structuring period.
(8) The dismantling of business silos at Bpifrance's founding was the first strategic pillar.
(9) 100 000 business managers were called during this period, mobilising not only the network but all Bpifrance employees.

CHART 7A: MAP OF BPIFRANCE OFFICES



Reading note: offices created since 2013 are indicated in orange.

In addition to its own network, **Bpifrance naturally relies on the local network of its banking partners and investment funds** through guarantee or funds of funds tools, which also aim to meet the financing needs of local communities as closely as possible. It is particularly essential to address the needs of VSBs.

Bpifrance's local presence is profound: the **range of products offered by Bpifrance is adapted to the specific characteristics of each region and can be particularly strengthened based on certain priorities defined with local authorities** (typically *through* regional innovation funds or regional guarantee funds, *through* regional investment capital funds and *through* the co-financing of certain Bpifrance Accelerators⁽¹⁾). This collaboration is also reflected in Bpifrance's governance: Regional Steering Committees (Comités régionaux d'orientation, CROs) determine the consistency between Bpifrance's actions at regional level and the Group's national strategic orientations. A national steering committee, chaired by the President of the French regions, includes representatives of

(1) Over 70 Accelerators launched in partnership with regions and other local authorities to date. See the following sections for a presentation of the Accelerators and support actions.

the regions, professional organisations representing employees and companies, as well as qualified individuals. Finally, two seats on the Board of Directors are reserved for the representatives of the regions.

A proximity and boost to the ecosystem based on communication adapted to entrepreneurs and increasingly on a digitised offer

The willingness to reach out to all local entrepreneurs very early on encouraged Bpifrance to develop an ambitious communication strategy, particularly focused on organising and deploying numerous events (more than 600 per year) aimed at bringing entrepreneurs together, including those in the making, in all regions (seminaries, trade shows, annual gatherings in Paris and in the regions). This action was reflected in the development of an annual event in Paris, Bpifrance Inno Génération (BIG) bringing together several thousand leaders, or actions throughout the regions (BIG Tour) to bring together entrepreneurs and local communities.

Lastly, **Bpifrance's desire to be agile in response to the needs of all entrepreneurs has led it to speed up the digitisation of its services.** The development of an on-line bank has increased access to financing for VSBs, in particular to support financing for intangible assets. These digital services were particularly useful during the pandemic.

Box 4

Bpifrance, a Fintech with a network

Developed over the last 10 years, the digitisation of Bpifrance has particularly accelerated since 2020 and the pandemic, serving the needs of entrepreneurs in the regions. This digitisation and its impacts on companies can be illustrated through 5 key axes:

The development of an effective on-line bank for VSBs, SMEs and mid-sized companies entrepreneurs

To support the network, the Bpifrance Online (Bpifrance en ligne, BEL) platform reinforces support and services for entrepreneurs, as well as the various banking partners, and regional or business creation support networks. BEL had more than **30,000 active users** by the end of 2022.

During the COVID-19 period, BEL handled more than **100,000** client requests over 3 months. In 2023, BEL is deploying two subscription service offers, including support for the ecological transition, financial steering support, and soon support for cybersecurity.

The development of a digital bank for VSBs

During the Covid-19 crisis, Bpifrance supplemented its offer of bank guarantees with an offer of unsecured on-line loans to help small businesses. Bpifrance's VSB digital bank (flash.bpifrance.fr) supported **9,330 small local businesses** in the regions, particularly artisans, with the support of the Regions and now the French government (France Num). Over **€400 million** have been injected directly since 2020. In the years to come, it aims to help strengthen the digital transformation and ecological transition of small French businesses alongside banking partners.

Agility in times of crisis with the development of the state-guaranteed loan digital platform

This digital platform has served the entire ecosystem of companies and banks to orchestrate the distribution of state-guaranteed loans during the Covid-19 crisis.

Launched quickly after the outbreak of the pandemic in March 2020, it served **750,000 companies**, **20,000** bank advisors and remains open today for the distribution of "Prêts Résilience" (Resilience loans, to cope with the war in Ukraine). It enabled **€140 billion** to be injected into French businesses and contributed to one of the key pillars of support for the economy since 2020.

Creating digital platforms to distribute honour loans for business creation

Following the resumption of business creation support activities by the Caisse des Dépôts, Bpifrance Création digitised the entire distribution chain and the granting of honour loans. The goal is to better serve support networks and business creators while complying with regulatory constraints. Since 2021, platforms dedicated to Solidary Honor loans have served **24,190 creators**, representing over **€160 million** distributed *through* these dedicated platforms and support networks. In 2022, loan production **doubled** compared to the level of production in previous years.

An action serving the needs of regional and local ecosystems, with the desire to address all types of entrepreneurs

This regionally-focused organisation is shown in chart 7B. Bpifrance covers the **regional financing needs of the French productive fabric relatively evenly**, with support broadly proportional to the economic potential of each region (measured by the weight of each region in GDP⁽¹⁾). For French Export Insurance, French regions housing the largest exporters (particularly the Pays de la Loire, Occitanie, and Île-de-France) are naturally strongly represented.

In addition to the regional distribution, the study of the network of actions also shows that **Bpifrance's support reaches VSBs/SMEs, and mid-sized companies across all types of regions, from rural to metropolitan areas**. Between 2013 and 2021, **areas outside metropolitan areas accounted for 68% of operations** in terms of the number of companies supported (16% in rural areas) and 47% of amounts. As support for industrial activities is one of Bpifrance's priority targets, there are also fairly naturally **"industrial regions"**, 146 intercommunal structures or groups of intercommunal structures located in rural areas, peri-urban areas, small and medium-sized cities with a strong identity and industrial know-how. **In 2021, 38% of beneficiaries of Bpifrance's support were based in an industrial region.**

Bpifrance is also active in underprivileged neighbourhoods⁽²⁾ (Quartiers Prioritaires de la politique de la Ville, QPVs). A 2018 study showed that the Bpifrance coverage rate of actions in QPVs was consistent with its national rate of action. Actions in QPVs accounted for 10% of Bpifrance's intervention amounts (excluding export insurance), in regions that witness social and gender inequalities visible in entrepreneurship. Bpifrance is deeply involved in these regions, starting with support for business creators and launching an Accelerator for dedicated to VSBs located in QPVs.

In addition, some assessments illustrate the extent to which Bpifrance's action is likely to alleviate certain local market difficulties. The evaluation of the guarantee for commercial fund acquisition loans shows that the beneficiaries of these guarantees are more often located in less densely populated areas (11% of the jobs associated with acquisition projects are covered by the guarantee in sparsely populated municipalities vs 2% in densely populated municipalities⁽³⁾). These areas are also less dynamic in terms of transferring businesses and employment, making matching sellers and buyers more difficult. This example demonstrates how schemes can adapt to local circumstances which are subject to more or less significant difficulties in the financing markets.

Finally, in recent years, **female entrepreneurship has become an unavoidable topic** and is now explicitly mentioned in the law that sets out the objectives of the bank's action (see box 5). It was already one of the four priorities of Bpifrance's CSR doctrine⁽⁴⁾. CSR was established early on as a priority for Bpifrance, which sought from the outset to harmonise its approach across its various business lines.

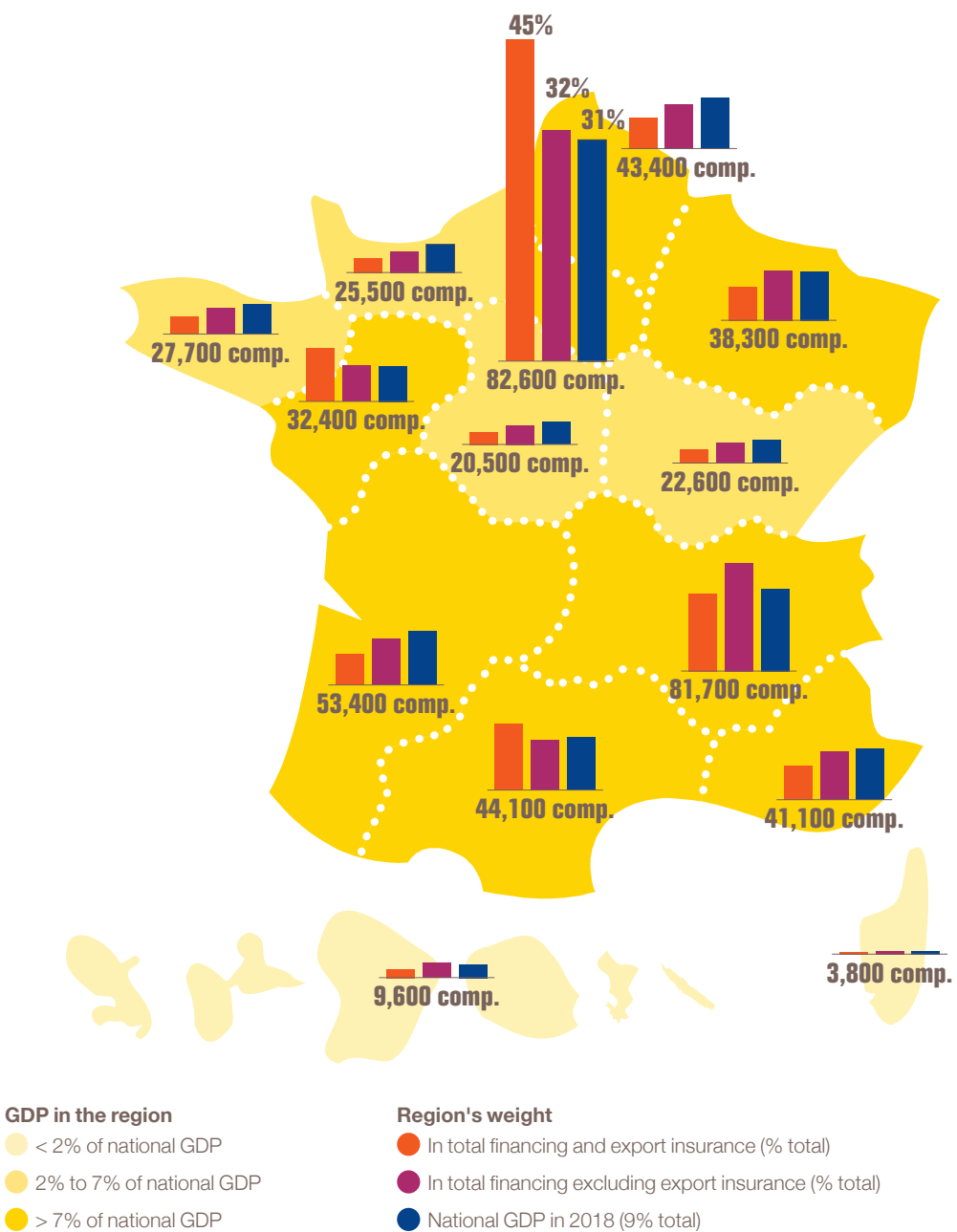
(1) The moderate variations observed here and there should not be overinterpreted, as GDP is a broader measure than just the capital needs of VSBs/SMEs and mid-sized companies in the business sector addressed by Bpifrance.

(2) The QPVs are neighbourhoods defined by the February 21, 2014, Programming Law for the City and Urban Cohesion to be the target of priority actions in city policy based on local considerations associated with the difficulties faced by residents of these areas.

(3) See Lè, 2022.

(4) Development of employment, quality of governance and management, Promotion of female entrepreneurship, Energy and ecological transition.

CHART 7B: DISTRIBUTION OF BPIFRANCE INTERVENTION AMOUNTS BY REGION BETWEEN 2013 AND 2022



The number shown corresponds to the number of companies supported by Bpifrance.

Note to the chart: the amounts of financing excluding export insurance (purple, in % of the total) are approximately equivalent in each region to the regional GDP amounts (blue, in % of national GDP), except in Île-de-France and Auvergne-Rhône-Alpes, where they are slightly higher.

Box 5
Bpifrance and the support for female entrepreneurship

In 2021, the French Entrepreneurship Index (Indice Entrepreneurial Français, IEF) showed that women are still under-represented among French people who participate in the country's entrepreneurial momentum, accounting for around 46%⁽¹⁾ of this sample, while women make up 52% of the French population. In this index, or in other studies, including those of Bpifrance Le Lab, financing difficulties, particularly through bank loans, are no higher for women than for men, when all companies created are considered. However, this under-representation of women is more marked among start-up founders: only 20% of start-ups founded in 2020 are led by women, according to the SISTA barometer. This low proportion of female start-up leaders could, in part, be linked to the fact that they face more funding difficulties than men. The barometer establishes that "start-ups led by women are 30% less likely to be funded by major investors."

In response to these difficulties, Bpifrance is committed in several ways. The public bank is a signatory of the SISTA charter, which aims to promote gender equality in the financing of digital start-ups, as well as the France Invest Charter, which aims to encourage access to capital for women. In connection with these two charters, Article 8 of the Rixain report, adopted in May 2021, sets out to establish a target of 30% women among Bpifrance's Investment Committees, combined with a target of 30% women among the new projects in which Bpifrance invests. The Article also provides for a quantitative monitoring of the distribution of women in investment projects in order to clearly define Bpifrance's gender equality objectives. Finally, alongside these measures, the IEF and the SISTA barometer show progress in gender diversity at several levels: (i) 1 in 4 French women were involved in the entrepreneurial chain in 2021, up 3 points compared to 2018 (ii) according to the barometer, signatory funds of the SISTA charter were three times more likely to measure the proportion of women in their investment files in 2020 (compared to 2019).

(1) The portion of French women who have been or are business leaders, or who currently intend to create/acquire a business (whether they have launched the process or not)

Bpifrance's toolbox was heavily used and strengthened over 10 years; aiming to support the transformation of the French productive fabric and its financing and support ecosystem

In addition to the key principles of its action, Bpifrance's has aimed over these ten years to respond to the challenges of transforming the economy and its production sectors through a one-stop shop for tools to finance and develop VSBs/SMEs, and mid-sized companies, from creation to transmission, through innovation and international development. This section describes the major axes of Bpifrance's action during this period by discussing their impact, with a particular focus on:

- axis 1: making France a nation of entrepreneurs through a range of support for the creation / transfer of businesses that has expanded over the last decade;
- axis 2: creating a continuum of financing for innovation that can support the emergence of a robust digital ecosystem (French Tech), as well as fundamental innovation (deeptech) and its industrial applications;
- axis 3: developing a range of specific loans for the financing of intangible investments and working capital for SMEs and mid-sized companies, particularly in industrial sectors, supplementing the historical range of short- and long-term loans to companies;
- axis 4: developing and deploying a deep range of non-financial support schemes;
- axis 5: deploying a large-scale equity offer for companies both directly and through funds-of-funds able to support and increase the competitiveness of French companies;
- axis 6: supporting the international development of French companies and developing the export network.

AXIS 1

Making France a nation of entrepreneurs: support for creation/transmission is central to Bpifrance's action

EXECUTIVE SUMMARY

- Over two-thirds of the VSBs/SMEs supported by Bpifrance over the past 10 years have been in their creation or transfer-acquisition phase;
- the guarantee covers 25% of bank-financed creations in France. The need for banks is very strong, even in a favourable economic climate, and the evaluations show that one euro of public funding put into a guarantee fund makes it possible to obtain between €10 and €13 of additional credit in the economy. It is therefore a high-leverage system for the government that helps to boost job creation and employment (for a ratio of about €5,000 per job);
- in addition to supporting the financing of business creation and acquisition, Bpifrance has, since 2019, strengthened its action on the entrepreneurial ecosystem by launching Bpifrance Création (regrouping the activity of the France Entrepreneurs Agency (Agence France Entrepreneurs, AFE), coordination, and the financing of creation aid networks);
- the impact of these actions on the success of supported projects, in terms of employment, revenue, and sustainability, as confirmed by the beneficiaries' feedback, shows the crucial role played in the French entrepreneurial dynamic, which has been expanding strongly over the past 5 years;
- We can see through the French Entrepreneurship Index, a higher rate of action between 2016 and 2021, with 13% of French respondents declaring themselves entrepreneurs in 2021, compared to 10% five years before. Similarly, project owners in the start-up phase increased from 7% to 11%.

EXECUTIVE SUMMARY

Supporting **business creation financing** has been one of the pillars of Bpifrance's actions since the outset. With nearly 300,000 projects supported between 2013 and 2022 (contributing €30 billion in funding), two-thirds of the VSBs/SMEs supported by Bpifrance over the past 10 years were for creation projects (14% of the amounts).

The offer of loan guarantees to French banks was the main vector in terms of the number of projects supported. These are particularly difficult projects to evaluate and finance (no track record to analyse, no assets to be used as collateral), and French banks made significant use of guarantees in the market for financing young companies. It is estimated that with 35,000 creation loans guaranteed per year, 25% of French bank loans for this type of project solicit the guarantee.⁽¹⁾ In the previous section, it was mentioned that the supports provided were specifically directed towards a population of entrepreneurs who were *a priori* more likely to face more difficulties accessing financing. However, financial support is crucial for such projects' sustainability and success. For example, INSEE has

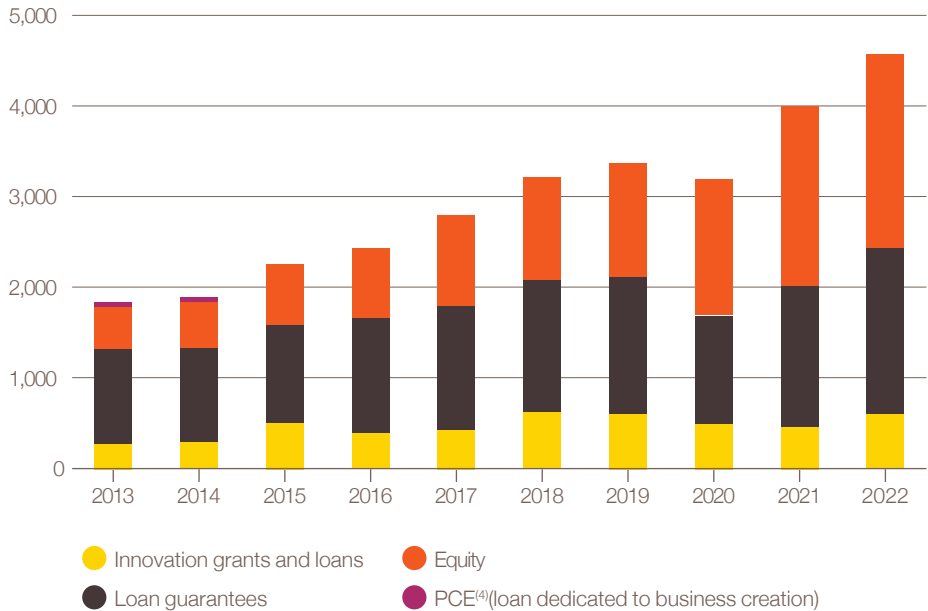
(1) Gazaniol et al., 2022.

highlighted that access to credit is linked to a higher life expectancy for new businesses⁽¹⁾. These indications are **supported by evaluation studies conducted on guarantee programmes in recent years⁽²⁾, which demonstrate that the guarantee leads to an increase in the number of creations financed in the economy for longer-term projects that are more dynamic in terms of turnover and employment (see Box 6).**

Supporting Bpifrance's creation also means supporting young innovative companies, whether through the distribution of grants and repayable advances or capital investment. These interventions, although focused on a smaller and more innovative population of creation projects than the guarantee, have nonetheless been a significant part of creation financing for several years (50% compared to 30% in 2013). The equity investment of Bpifrance and its partner funds rose sharply over the past 10 years (Chart 8 and next section).

CHART 8: CHANGE IN BPIFRANCE'S SUPPORT FOR THE CREATION OF COMPANIES BETWEEN 2013 AND 2022.⁽³⁾

In terms of amounts (€m)



(1) See, for example, Insee Première No. 1441, April 2006 and Insee Première No. 1639, March 2017.
(2) Gazaniol, L., June 2020.
(3) Honour loans distributed by aid networks for creation are guaranteed by Bpifrance and appear as such in the charts.
(4) Business Creation Loans, a former Oséo programme that expired when Bpifrance was created.

In terms of number of companies supported



Reading note: Bpifrance's interventions are classified as "support for creation" based on the identified project objective at the time of application. This mainly concerns companies that are 3 years old or less.

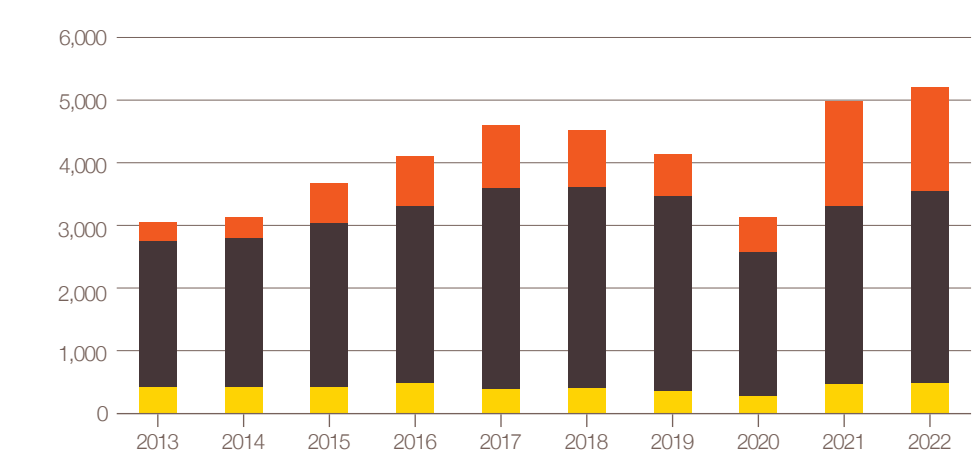
Overall, business creation in France has been very dynamic since 2015 (Part 1) and Bpifrance's action may have contributed to this growth in volume in all sectors, by increasing the likelihood of success.

Bpifrance's support for business transfers and acquisitions was also significant between 2013 and 2022, with over €40 billion injected into approximately 190,000 projects. On the one hand, these funds allowed a wide range of commercial acquisition projects to be supported, particularly through loan guarantees (Chart 9) in a context where business owners from the baby-boomer generation are retiring⁽⁵⁾. This support, in particular through the guarantee of bank loans, targeted low-density areas where it can be especially challenging to find a buyer. On the other hand, the loans and equity support offered by Bpifrance helped support the acquisition of small shareholdings in VSBs/SMEs (see the beginning of the chapter). **The evaluation of loan guarantees showed that the projects thus transferred had a better chance of survival and therefore of maintaining employment,** particularly for business transfer projects led by entrepreneurs close to retirement (see Box 6).

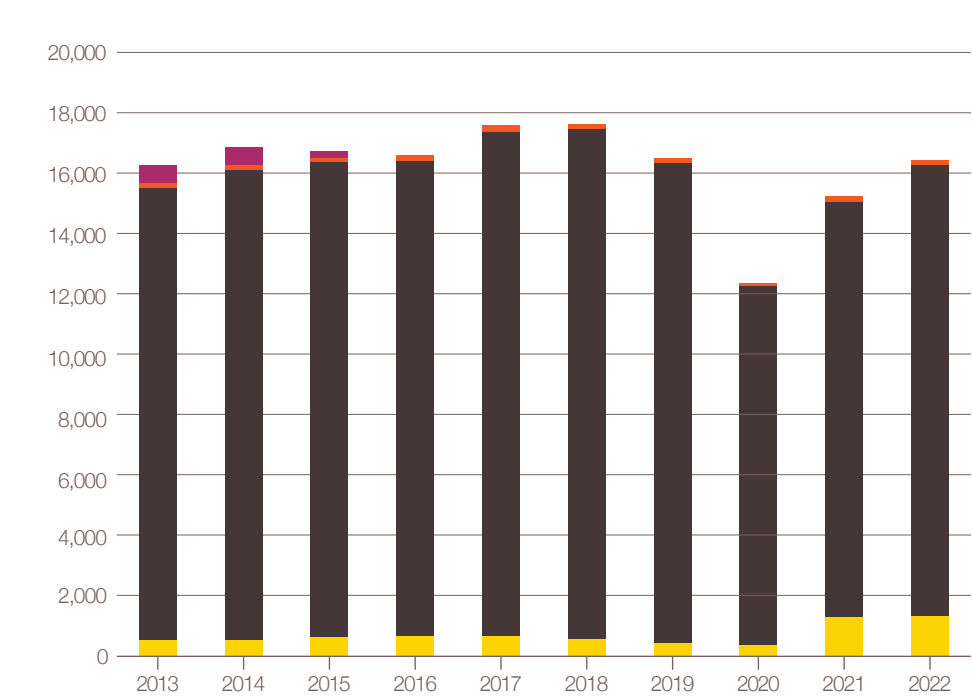
(5) "Reprendre pour mieux entreprendre dans nos territoires, Synthèse rapport du Sénat, 2022". (Revive to thrive in our regions, Summary of the Senate report, 2022).

CHART 9: CHANGE IN BPIFRANCE'S SUPPORT
FOR BUSINESS TRANSFERS BETWEEN 2013 AND 2022

In terms of amounts (€m)



In terms of number of companies supported



● Innovation grants and loans ● Loan guarantees
● Equity ● PCE (loan dedicated to business creation)

Bpifrance's support for creation and transfer is aimed at all sectors of activity, particularly those most represented in this type of operation⁽¹⁾, including retail trade (10% of creation support in terms of the number of companies over the period 2013-2022, 25% of transfer support) and accommodation and catering (10% of creation support and 30% of transfer support).

In feedback from business leaders (see Part 4), this creation and transfer-acquisition support is often decisive in their entrepreneurial journey, confirming the results of the evaluations. Bank guarantees are particularly important, whether for acquisitions or pure creations. Other types of support that can be used during these phases (equity investment, loans) are also mentioned. In many cases, support is considered "decisive" in the operation, before companies subsequently gain easier access to bank financing.

(1) See INSEE data on business creations in 2021 and Altarès (Report 2021 on sale and transfer of commercial enterprises).

Box 6

The impact of Bpifrance's creation-transfer-development guarantee funds

Two econometric studies focused on evaluating the impact of guarantee funds on beneficiary companies:

- the first measured the economic benefits of the guarantee for business creation projects and SMEs in the development phase⁽¹⁾;
- the second measured the economic fallout from the guarantees for commercial acquisition projects⁽²⁾.

These studies compared the performance of companies benefiting from guarantees with those of companies not covered by guarantees but initially comparable in terms of observable characteristics⁽³⁾.

As shown at the beginning of Chapter 2, the profile of the projects or project owners for which the banks seek guarantees is riskier than average. However, counterfactual analysis shows that, for the generations of beneficiaries studied (2007-2015), securing bank financing results, within 3 years of the loan, in:

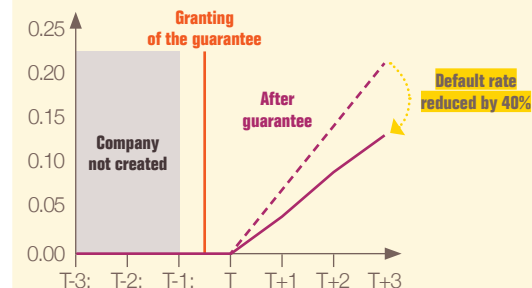
- **an additional impact on the survival rate** between 4 and 8 percentage points within three years of support (depending on the purpose of the project and the generation studied);
- **an additional impact on turnover and investment.** For example, granting a guarantee leads to an increase in revenue of around 10% within 3 years of support for the beneficiaries of the "development" fund and 19% for the beneficiaries of the "transfer" fund;
- **an additional impact on employment**, with around one additional job per supported company over a three-year period for "creation" and "development" funds. Thus, for a generation of approximately 34,000 beneficiary VSBs and SMEs, the guarantee facilitated the creation of approximately 36,000 additional jobs in the economy;
- **these impacts may vary in intensity depending on the profile of the projects supported.** In the case of the transfer guarantee, the evaluation showed that the impact could even be greater for the acquisition of businesses from executives close to retirement age: An additional increase of 27% of turnover for the following three years compared to an increase of 19% for the entire population; an increase of 8 points in the survival rate over the following three years compared to an additional 3 points for the entire population.

IMPACT ON THE BENEFICIARIES OF LOANS COVERED BY THE "CREATION" AND "DEVELOPMENT" GUARANTEE

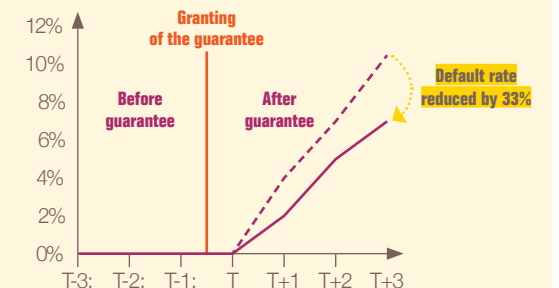
The guarantee will make it possible to ensure the long-term survival of VSBs and SMEs and boost their growth and employment.

Change in the default rate over the 3 years following the grant of the guarantee

• IMPACT OF GUARANTEES ON BUSINESS CREATION PROJECTS



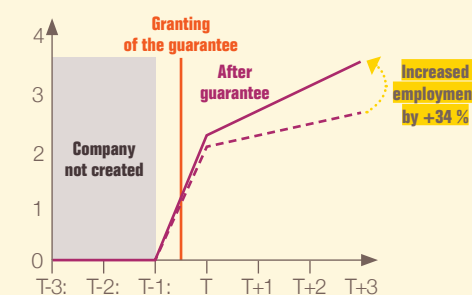
• IMPACT OF GUARANTEES ON VSEBS/SMEs IN DEVELOPMENT



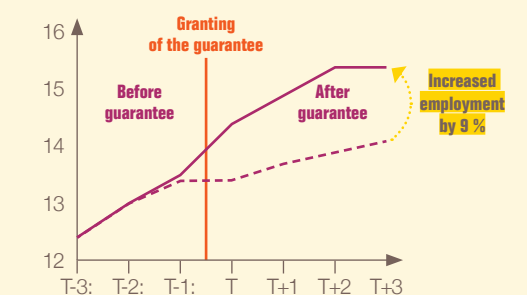
— Companies that have benefited from a guarantee
- - Similar companies not covered by a guarantee

Average change in employment over the 3 years following the granting of the guarantee

• IMPACT OF GUARANTEES ON BUSINESS CREATION PROJECTS



• IMPACT OF GUARANTEES ON VSBs/SMEs IN DEVELOPMENT



— Companies that have benefited from a guarantee
- - Similar companies not covered by a guarantee

Source: Gazaniol, Lê (2020)

(1) Gazaniol, Lê (2020), a study followed by the steering committee on the evaluation of Bpifrance's guarantee funds.

(2) Lê (2022), a study followed by the same committee.

(3) Characteristics likely to influence banks' propensity to seek guarantees and influence their growth prospects (sector, size, financial health, *ex ante* dynamics, profile of the project leader, if applicable, etc).

In addition to supporting the financing of business creation and acquisition, Bpifrance has, since 2019, strengthened its action on the entrepreneurial ecosystem by launching Bpifrance Création with:

- The integration of the France Entrepreneur Agency (AFE);
- Coordination and financing of business creation support networks in all regions, particularly in priority neighbourhoods, tasks previously performed by the Caisse des Dépôts Group.

The integration of these activities aims to strengthen support for entrepreneurs throughout the country, ensure better coordination of the support and financing offer for companies, and improve the orientation of project owners. Bpifrance Création was able to contribute to:

- promoting entrepreneurship and helping project owners to get information and prepare;
- supporting and financing projects, thanks to the various actors involved in business creation support (i.e. 1,500 reception points, more than 3,000 employees and 30,000 volunteers), as well as various financial tools deployed (e.g. honour loans, microcredit and bank guarantees);
- monitoring the evolution of the business creation ecosystem and its needs within the regions, *through* the Entreprise Creation Observatory (OCE);
- acting in all regions, especially the most fragile.

This action should be seen in the context of the significant dynamic of business creation at work in France, which is reflected in an *Entrepreneurship Index* reaching record levels in recent years (see Box 7). The development of this French Entrepreneurship dynamic is one of Bpifrance's major strategic challenges over the coming years, with the support of business creation networks.

Box 7

The French Entrepreneurship Index

The French Entrepreneurship Index⁽¹⁾, which measures the French population's involvement in entrepreneurship, in action or intention, remained high over 2016-2021 (30% in 2021 after 30% in 2018 and 32% in 2016), despite the pandemic.

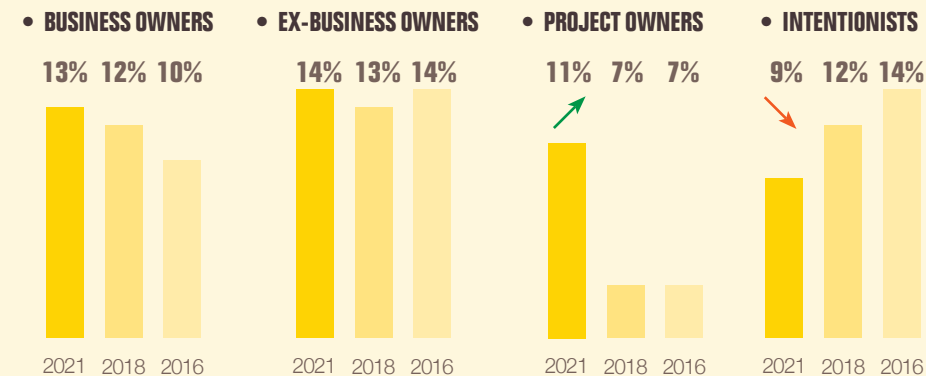
However, this stability masks an increasingly high rate of action between 2016 and 2021, against a backdrop of strong business creation dynamics in France. For example, 13% of French respondents stated that they were a business leader in 2021 compared to 10% 5 years earlier. Similarly, project owners, in the start-up phases of their entrepreneurial project, increased from 7% to 11% of French population over the period; and as a result, the number of intentionists fell (9% compared to 14% in 2016).

The study also showed the entrepreneurial dynamics in different regions and within different parts of the population:

- 20% of inhabitants of underprivileged neighbourhoods (QPVs) were in the business chain in 2021, up 6 points compared to 2018. Despite a greater attraction to entrepreneurship (12% of intentionists in the QPVs) , only 2% of residents in the QPVs were business leaders, 5% were ex-business leaders and 3% project owners; reflecting less frequent action than the average French population;
- 1 young person in 2 (aged 18-30) was participating in the entrepreneurial dynamic, compared to 3 out of 10 for the total French population, all ages combined.

French people were also very aware of entrepreneurship, with more than half being moderately or strongly exposed to entrepreneurship in 2021.

COMPONENTS OF THE FRENCH ENTREPRENEURSHIP INDEX FOR 2016-2021



Reading note: 13% of French people surveyed in May 2021 stated that they were business owners.

(1) Inspired by the Quebec Entrepreneurship Index initiated by the Entrepreneurship Foundation in 2009, this index, produced every two years, takes into account two types of measures: (i) the entrepreneurial chain, i.e. learning how many French people are involved in entrepreneurship: the "intentionists", the business creators, entrepreneurs and those who have sold or closed their business, and (ii) their entrepreneurial culture, i.e. the perception and representation, among French people, of entrepreneurship, entrepreneurial skills and qualities, and their entrepreneurial awareness. For all results, see Bpifrance Création, IEF 2021: France, fertile soil for entrepreneurship.

AXIS 2

From the emergence of La French Tech to the spread of innovation in SMEs and industry: 10 years of support for innovation.

EXECUTIVE SUMMARY

- The range of innovation financing tools has been used to promote the emergence of La French Tech since 2013. The amounts of support for start-ups in innovation aids and innovation capital (*venture capital*) have multiplied by more than 7 in 10 years, with significant actions under the Investing in the Future Programme (PIA). The complementary nature of tools, aid, loans, and equity has been greatly strengthened;
- the French *venture capital* ecosystem has been particularly developed in 10 years, *through* complementary action by Bpifrance as a direct investor in the capital of start-ups and an indirect investor *through* subscriptions to private ecosystem funds (funds of funds). All market segments were significantly strengthened, from start-up to *late-stage*. The size of French funds has more than doubled and around thirty unicorns were created in 10 years;
- in addition to La French Tech, innovation grants were used to stimulate R&D in the entire SME sector *through* dedicated grants and loans, with additional impacts of between €100,000 and €300,000 of annual R&D on average for supported VSBs/SMEs;
- Bpifrance's action has also helped to stimulate more and more industrial applications resulting from fundamental research, with significant effort towards *Deeptech* that are continuing today through support for the emergence of industrial start-ups.

EXECUTIVE SUMMARY

At its creation at the end of 2012, Bpifrance inherited first, the activity of distributing innovation aid (subsidies, repayable advances and loans at preferential rates) to the SMEs and mid-sized companies which had previously been deployed by the Anvar (the French National Agency for Valorisation of Research), which merged with Oseo in 2005 and second, the innovation capital activity of CDC Entreprises and the FSI.

The innovation aids already addressed a wide variety of companies (respectively 55%, 35% and 5% of benefiting companies were VSBs, SMEs or mid-sized companies between 2013 and 2022). Innovative projects (individual projects, collaborative projects) were initially focused primarily on supporting SMEs' technological innovation (especially support for R&D expenses) in sectors where a large portion of innovative companies are usually concentrated. Information and communication, specialised activities, scientific and technical activities, and industry, accounted for 30%, 25% and 25% respectively of the companies benefiting from innovation aid for 2013-2022.

However, according to European surveys, the spread of innovation in the French SME sector remains weaker than in Germany or Northern European countries⁽¹⁾. At the

(1) Eurostat, Community Innovation Survey, 2014.

same time, the emergence of new dominant digital players on the international stage, supported by powerful start-up development ecosystems, underlined the need to accelerate the dynamics of capital deployment in France. The innovation capital industry was recovering from the financial crisis and the amounts raised by French start-ups, or the size of domestic venture capital funds remained lower than Germany and especially the United Kingdom⁽²⁾ (and far behind the United States).

Bpifrance then built on the merger between Oséo, CDC Entreprises and the ISF to give a new dimension to its innovation support offer, and to propose a continuum of financing-investments capable of meeting the needs of companies throughout their innovation cycle. The purpose of this new strategy was to enable the emergence of a French innovation ecosystem, relying on maximum leveraging of private financiers and investors, and whose influence was meant to go beyond French borders (which motivated the creation of the "French Tech" label). The aim was both to increase the number and attractiveness of French start-ups, to structure the French innovation capital industry by helping to increase its capacity for action and know-how, but also to build a support offer (networking of start-ups with large companies looking for their services), training their leaders in communication with investors, etc.) in order to improve the performance of the entire ecosystem.

The implementation of this strategy over the past 10 years has resulted in:

- A strengthening of support for start-ups *through* grants, repayable advances⁽³⁾ and loans (in particular *through* the French Tech Grants). The proportion of these innovation aids allocated to businesses less than 8 years old rose in 10 years from 44% to 70% in terms of the number of grants (to reach 5,140 in 2020) and from 32% to 71% in terms of amount (around €1.7 billion in 2020)⁽⁴⁾.
- While technology is still the main targeting focus for aids,, the latter are expanded to fund all innovation processes that can generate value: product and service innovation, process and organisation innovation, marketing and commercial innovation, social innovation⁽⁵⁾. The aid programmes are no longer intended solely to fund R&D, but also the operational roll-out of all new entrepreneurial initiatives likely to generate growth, an approach made necessary by the spread of digital technology. This shift was accompanied by an increasingly strong reliance on leverage financing instruments⁽⁶⁾ to maintain a significant innovation support effort for SMEs at a time when the government's budgetary credits on which they were based were constantly decreasing.
- An improvement in the business flow of innovation capital funds. Innovation grants allowing a maximum of innovative ideas to be tested on the market, the development of the innovation capital ecosystem becomes a logical next step to provide the most promising projects with the means to launch in their markets. The proportion of start-ups that raised funds and that were previously supported by innovation aid increased sharply over the period (from 50% to 70%, see Chart 10). This ability to offer a cross-functional offer relied on a dense network of specialised account managers⁽⁷⁾.

(2) According to Dealroom, start-ups raised a cumulative €7.1 billion between 2010 and 2012 in the UK, €2.4 billion in Germany, and €2.3 billion in France. According to Pitchbook, the average size of French funds created between 2007 and 2012 was €39 million compared to €74 million in Germany and €95 million in the United Kingdom.

(3) Repayable advance: an innovation aid whose effective degree of reimbursement depends on the level of turnover achieved by the company.

(4) The proportion of innovation aid granted to businesses less than 8 years old reached 65% in terms of number and 40% in terms of amount in 2022, as a result of the significant deployment of schemes targeting more mature companies and mobilising substantial amounts.

(5) See Bpifrance, next-generation innovation, 2014.

(6) Repayable advances, zero-interest loans that allow a company to multiply the funding received with one euro of endowment

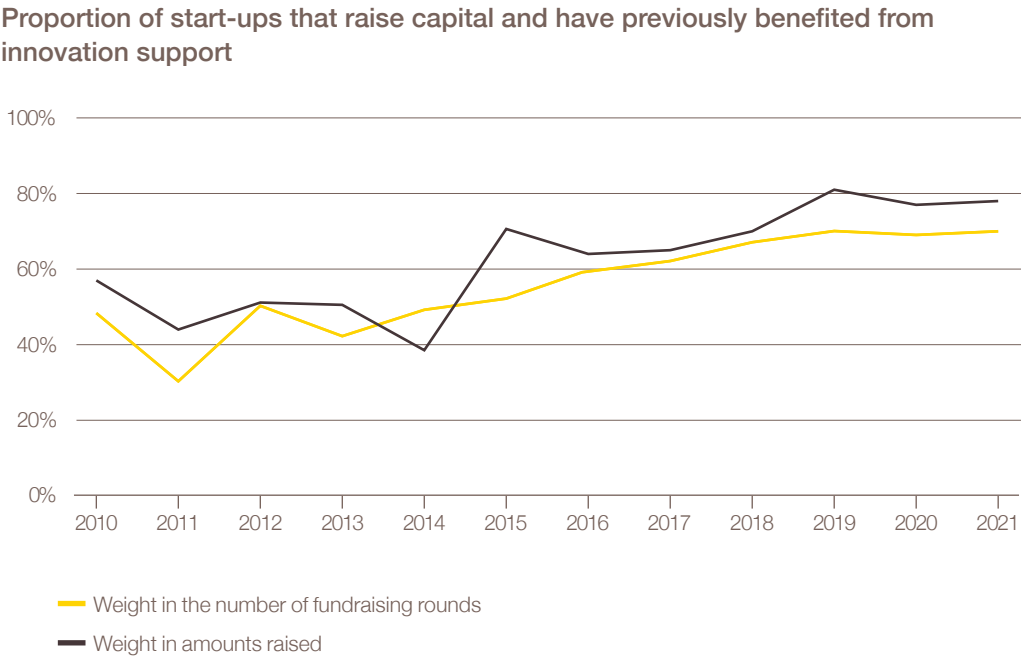
(7) With 150 account managers deployed in the regions.

- **An increase in the capacity for action of the French ecosystem of equity investors** throughout the chain *via*:
 - **the reconstitution of a seed fund offer** through *the stimulation of funds of funds*, in particular financed by the Investing in the Future Programme (PIA) (creation of the National Seed Fund);
 - **a French venture capital offer with increasingly significant resources.** Bpifrance invested in approximately 130 private venture capital funds during the 2013-2021 period, whose average size increased significantly (€152 million over the period compared to €52 million for funds subscribed before 2013). At the same time, Bpifrance has deployed its own venture capital funds to cover high-stakes sectors and technologies (biotechnologies, environmental technologies) and other strategic sectors⁽¹⁾;
 - **the expansion of the growth capital segment ("capital croissance")**, in order to give start-ups the opportunity to grow quickly and ensure their independence both through direct funds (creation of "Large Venture" funds in 2013 and "Industrial Project Companies" in 2015) and the investment of funds of funds ("Multicap Croissance" programme), Growth funds of funds) in private *capital growth* funds. Overall, Bpifrance subscribed to 33 "capital growth" funds between 2013 and 2022, with an average size significantly higher than other venture capital funds subscribed by Bpifrance (€375 million compared to €157 million⁽²⁾). As a result, fundraising campaigns that exceeded €20 million increased from 3 in 2013 to more than 100 in 2022
- **A significant portion of these actions were deployed with Investing in the Future Programme (PIA) resources, of which Bpifrance was one of the main operators, as well as increasingly important European resources** to support the policy of aid, loans and equity investments for innovative French companies⁽³⁾.

Overall, support for innovation increased sharply over the past 10 years. In the start-up segment, the financing amounts provided by Bpifrance and its partner funds increased from about €750 million to €5.5 billion (see Chart 10), while the number of distinct supported companies increased from about 1,900 to 4,700. **Bpifrance has become one of the main direct equity investors in European start-ups with €7 billion in assets under direct management, as well as €9 billion in innovation funds of funds assets.**

Efforts were not limited to funding but also focused on developing services that would specifically boost the ecosystem. This is the case for the EuroQuity platform, aimed at connecting investors and project owners⁽⁴⁾. In France, over the past 10 years, EuroQuity has played an important role in bringing the French *tech* ecosystem together and supporting innovation, with over 9,800 registered companies, more than 540 companies supported in preparing pitches to investors and over €300 million raised by companies that participated in pitch sessions. Following its success in France, EuroQuity expanded its activities to Europe, becoming the leading platform for connecting companies and investors in Europe⁽⁵⁾ and, for the last 3 years, in Africa⁽⁶⁾.

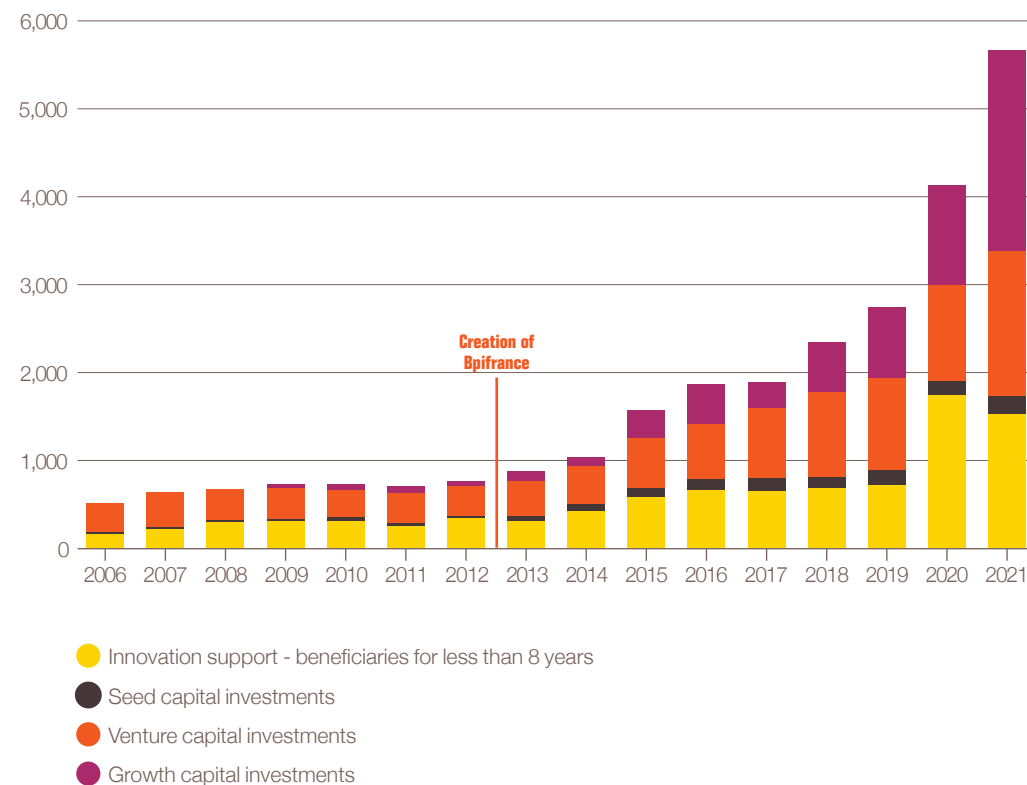
CHART 10: CHANGE IN BPIFRANCE'S SUPPORT FOR INNOVATIVE START-UPS



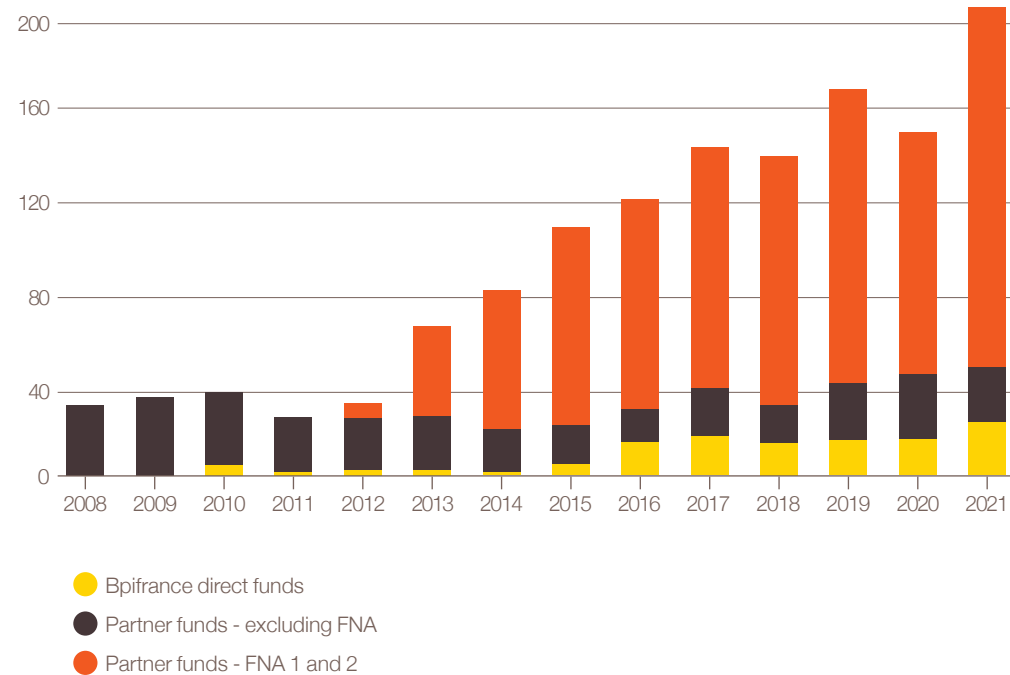
(1) This includes the PSIM fund that was financed by the Investing in the Future Programme (PIA), which aims to provide equity funding to the best projects from the World Innovation Competition on topics identified by the Lauvergeon Commission.
 (2) These average fund size figures include financing currently being raised and may therefore be revised upwards.
 (3) See the end of the chapter.

(4) With, for example, Solar Impulse, France Angels, Deeptech, SATT (companies for the acceleration of technology transfer).
 (5) With in particular the European Innovation Council (EIC), as well as strategic bilateral partnerships, for 6,500 registered companies, 1,000 companies supported in pitching and €1 billion in fundraising.
 (6) More than 3,000 user companies, have already raised \$210 million in fundraising.

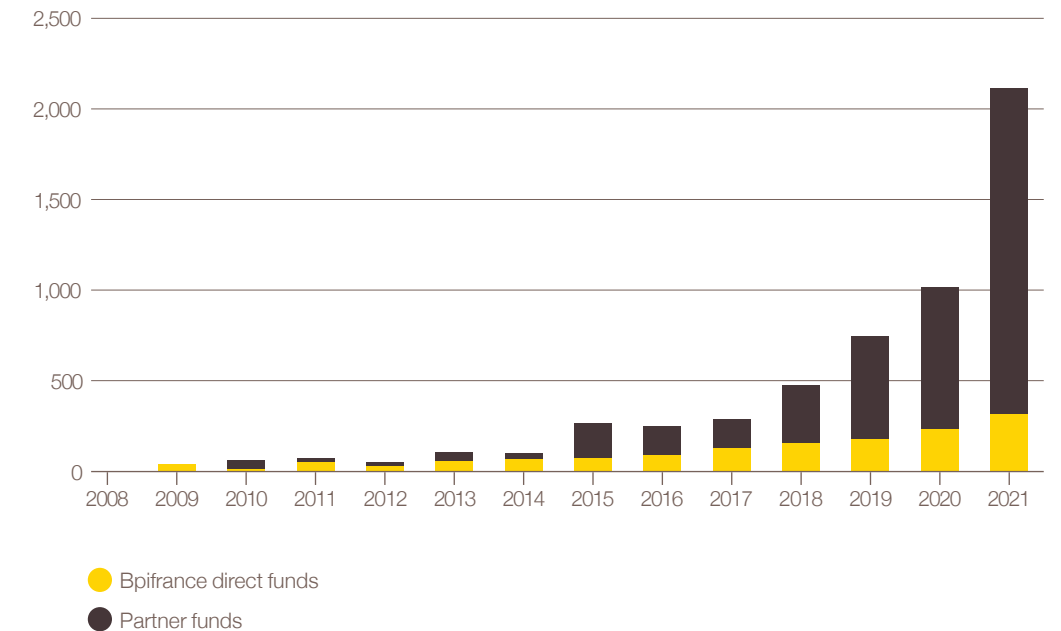
Financing innovation by Bpifrance for start-ups



Change in seed capital investments (€m)



Change in growth capital investments (€m)



Source: Bpifrance, Dealroom

This movement was thus able to contribute to the very strong momentum of La French Tech and of the ecosystem financing it in recent years (see Chart 11):

- The amounts raised by French start-ups increased fourteenfold between 2010 and 2021⁽¹⁾, driven in particular by large fundraising rounds (>€50 million) and even mega-deals (€100 million);
- The average size of venture capital funds operating in the French market also increased sharply (from €39 million for the years 2007-2012 to €105 million for the years 2013-2021⁽²⁾), closing the gaps compared to the German or British ecosystems;
- The proportion of start-ups invested in by foreign funds and, particularly, North American funds, has also increased significantly since the creation of Bpifrance, approaching that of the United Kingdom and Germany, a sign of the appeal of the French ecosystem. This contributes to its ability to finance increasingly ambitious projects;
- The performance of French funds has increased in the past ten years, and the number of French unicorns⁽³⁾ has grown significantly since the creation of Bpifrance, from a single unicorn created in 2013 to 14 unicorns created in 2021. Within the stock of 31 French unicorns in 2022, 11 were held in the *Large Venture* fund;
- More broadly, over 40 start-ups invested in by Bpifrance over the period have crossed the threshold of 250 employees, reaching the status of mid-sized companies. When extended to the portfolio of partner funds, there were about 130 equity start-ups receiving capital investment over the last 10 years that exceeded the threshold of 250 employees at the end of 2019. Even though the turbulence in 2022 and 2023 has made the situation on the markets more uncertain, the strong momentum of early-stage fundraising rounds suggests continued growth of the ecosystem over the coming years and the emergence of high value start-

(1) According to Dealroom, amounts raised by French start-ups were €14.3 billion in 2021 and €14.6 billion for the first nine months of 2022, compared to less than €1 billion 10 years earlier.

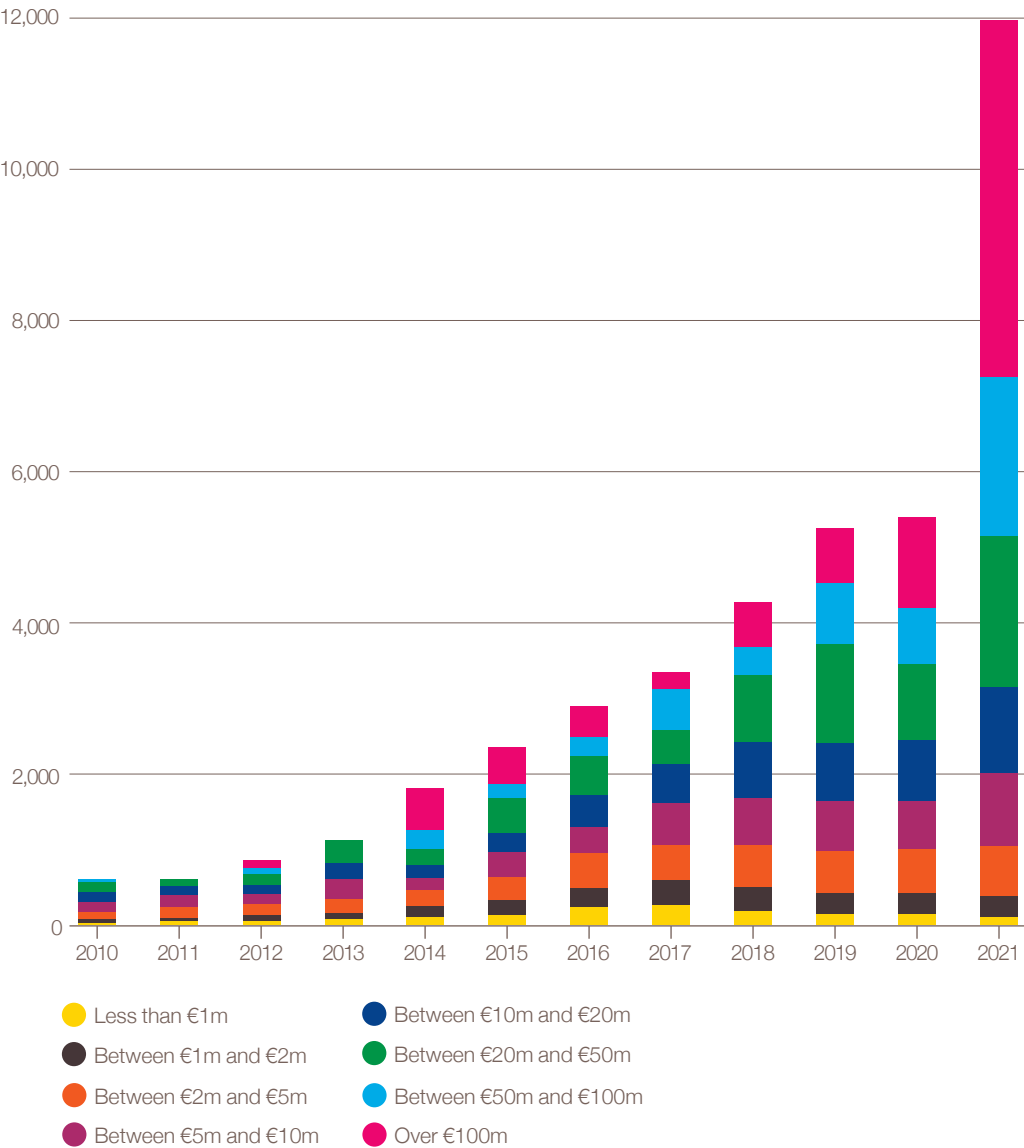
(2) According to Pitchbook.

(3) A recently created company with very strong development and commonly valued at over one billion euros.

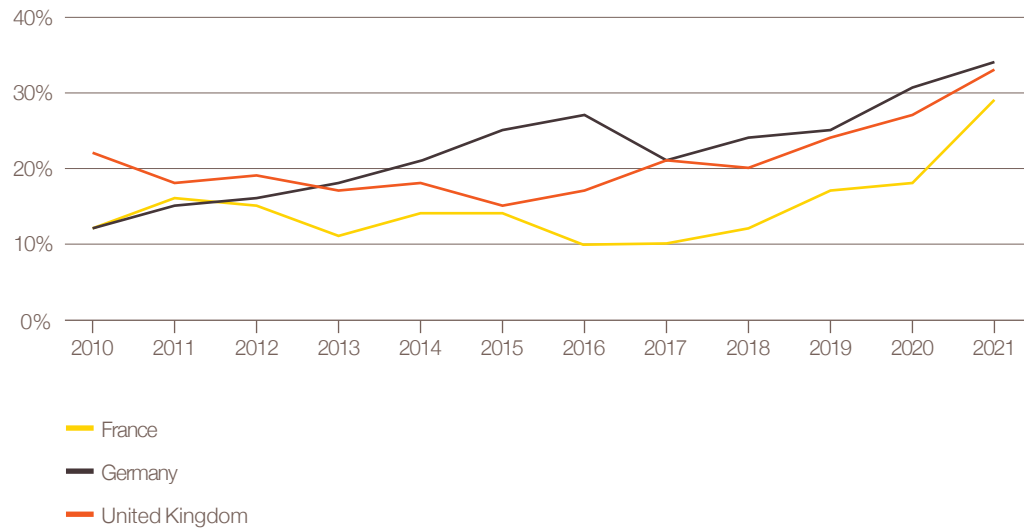
ups. It is estimated that almost 700 start-ups had already exceeded the threshold of 100 employees by mid-2022 and had the potential to become an intermediate-sized group⁽¹⁾ in the coming years. Around ten French companies have also reached the status of "centaurs" (unlisted start-ups generating more than €100 million in recurring annual revenue)⁽²⁾.

CHART 11: CHANGE IN THE FRENCH START-UP ECOSYSTEM SINCE 2010

Amount raised by French start-ups according to Dealroom (in €m)

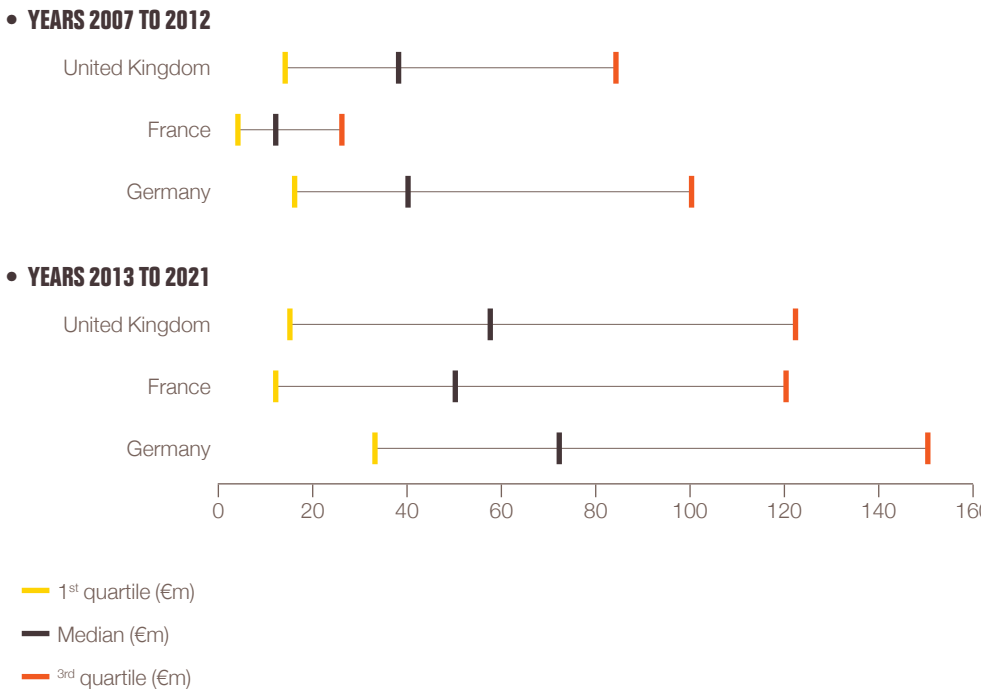


Proportion of deals with the participation of an American investor (Dealroom data)



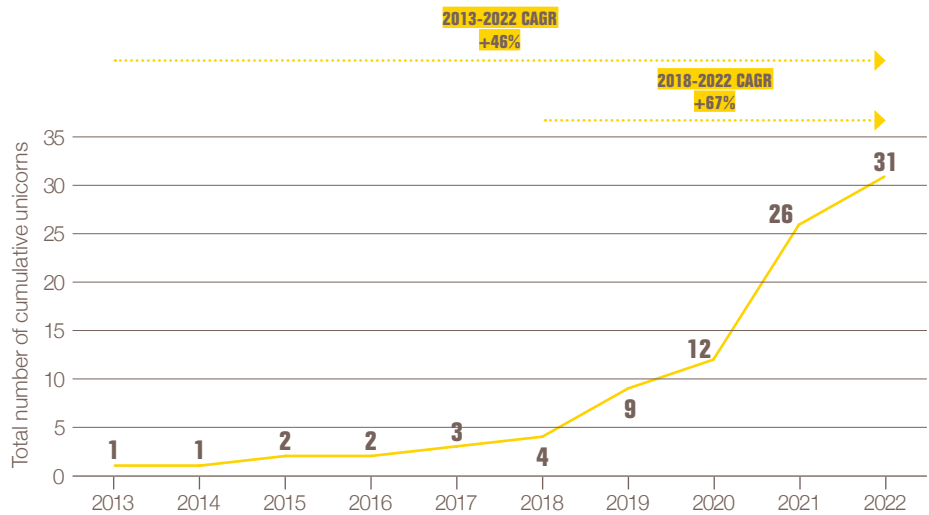
Source: Dealroom, companies whose registered office is located in France, excluding firms that Dealroom considers to be "mature" or "non-tech" and excluding fundraising by listed firms. Data collected in April 2022.

Size of venture capital funds - European comparisons (Pitchbook)



(1) Bpifrance-METI study, May 2022, based on Dealroom data.
(2) <https://www.la Tribune.fr/technos-medias/innovation-et-start-up/french-tech-qui-sont-les-centaures-ces-start-ups-du-logiciel-qui-realisent-plus-de-100-millions-d-euros-de-revenus-annuels-933434.html>

Change in the number of French Tech unicorns



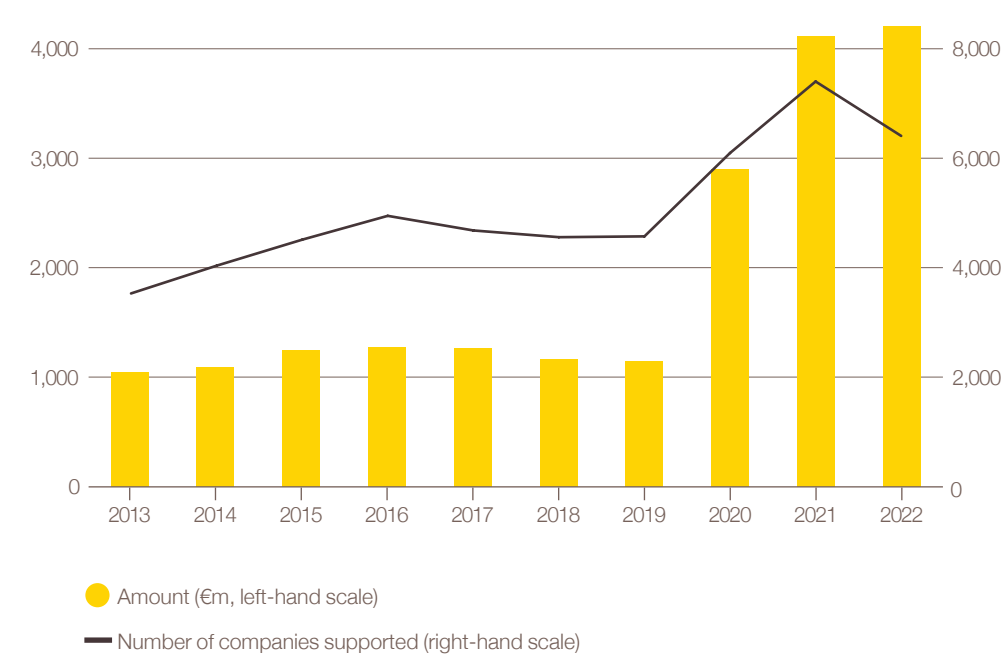
2013	Veepee	2013
2015	BlaBlaCar	2015
2017		
2017	SYMPHONY	2017
2018	deezer	2018
2019	dataiku, ivalua, meero, Doctolib, kyriba	2019
2020	MIRAKL, Voodoo, CONTENTSQUARE	2020
2021	sorare, BackMarket, iad, alan, LEDGER, SHIFT, Swile, aircall, algolia, OWKIN, Lydia, DentalMonitoring	2021
2022	qonto, ankorstore, EXOTEC, PayFit, SPENDESK	2022

After extensive support for the start-ups ecosystem, greater emphasis has been placed in recent years on start-ups coming from fundamental research. Called **deeptech start-ups**, they are focused on disruptive innovation from which they aim to derive industrial applications, in order to meet the challenges of the future. In 2019, Bpifrance **launched a Deeptech plan** aimed at (i) encouraging the emergence of new deeptech start-ups in connection with university laboratories, (ii) ensuring the growth of projects to create new champions and (iii) generally developing and strengthening the ecosystem (in particular the university-company link). Four years after the start of the Deeptech plan, 320 deeptech start-ups were created in 2022, with equity investments of €2.3 billion (with Bpifrance directly or indirectly participating in 70% of the funding rounds), 5 unicorns and nearly 120 industrial sites led by these start-ups⁽¹⁾.

Bpifrance's support for innovation has not been to start-ups alone. A **substantial proportion of innovation grants** distributed by Bpifrance, whether targeted at innovation projects undertaken by companies for their own account (individual aid), or at broader projects involving several companies and laboratories (collaborative aid), **target SMEs and mid-sized companies, which are often industrial and R&D intensive.** Behind the emphasis on the emergence of the digital ecosystem was the objective of infecting the entire SME fabric with the momentum generated. For example, according to INSEE's data, it is estimated that two-thirds of the current stock of innovative and mature French SMEs (8 years old or more) operating in industry have already been supported by Bpifrance, either *through* innovation support or other programmes⁽²⁾. Industry accounted for an average of 25% of companies receiving innovation funding over the 2013-2022 period. This rose to 35% in 2021.

(1) See Bpifrance, Report on the 2021 Deeptech plan, March 2022.
(2) Bpifrance short- or medium-long term loan, private bank guaranteed loan, Bpifrance equity fund or Bpifrance non-financial support.

CHART 12: INNOVATION GRANTS AND LOANS, ALL BUSINESSES COMBINED



2019, the economic impact of this innovation aid was the subject of two evaluations, one on individual aid and the other on collaborative aid (see Box 8). These two evaluations highlighted the significant impact of R&D and innovation investments aid. For individual aid, beyond the effect on R&D expenditure, the economic performance (employment, turnover) of supported innovative companies was found to increase. For collaborative aid, patent production and access to private financing were found to be stimulated.

These grants have irrigated many French technology sectors, initially strongly oriented towards digital technology, individual aid increasingly supported biotech and healthcare⁽¹⁾ and now greentechs as part of Bpifrance's Climate Plan. Within these sectoral investment theses, there are also themes that have gradually emerged and that tell the story of ten years of major technological changes, sometimes with dead ends. This ability to support major technological transformations is based on deep internal expertise.

(1) The overall innovation grants for the entire healthcare sector increased from €30 million in 2013 to €1.2 billion in 2021.

Bpifrance's actions to support innovation, with both startups and non-start-up, have changed in scale in the past few years, mainly driven by the various post-pandemic stimulus plans (France Relance Plan in 2020, the France 2030 Plan, including the Investing in the Future Programme, PIA) and with strong industrial dominance. For example, this change in scale resulted in innovation grants of €4.4 billion in 2021 (€2.5 billion associated with France Recovery) compared to €1 billion 10 years earlier. This movement reflects the significant efforts of the state over the last few years.

The Industrial Start-ups and SMEs Plan, part of the France 2030 Plan⁽²⁾ aims to develop the industrial start-up and SME ecosystem. Its goal is to create 100 new factories per year by 2030 to address upcoming societal challenges (such as agritech, healthcare, new materials, etc.) To achieve this, Bpifrance will leverage its full range of innovation support tools: grants, equity investments, development of the private venture fund ecosystem for industrial projects ("industrial venture capital"), support, etc.⁽³⁾

(2) By the end of 2022, the France 2030 Plan at the national level represented 60 calls for projects launched in 18 months, with nearly 4,000 projects received, of which approximately 1,000 were already reviewed by Bpifrance.
(3) See Bpifrance, Start-up and Industrial SME Plan, 2022.

Box 8

The impact of Bpifrance's innovation grants

The impact evaluation of Bpifrance's individual innovation support and collaborative project support was CARRIED OUT as part of the evaluation report on state aid to R&D and innovation for the European Commission⁽¹⁾.

The study of individual support highlights:

- a **positive impact on R&D and innovation**. The R&D expenditure of supported VSBs/SMEs increases by an average of €83,000 per year after 3 years (or an increase of 22% relative to the year preceding the support), but does not replace private financing which would have been mobilised in any case if the scheme had not existed (on average, there are no "windfall effects");
- an **impact on job creation, with an** average increase of 0.9 and 1.6 jobs created after 3 years for each supported VSB-SME, compared to a counterfactual sample (corresponding to a 10% increase in the workforce relative to the year preceding the support). This **growth in total employment is partially driven by the growth of employment linked to R&D activities**, which increases by 0.5 jobs after three years (highly qualified jobs for engineers and technicians);
- an **effect on business development. The additional R&D investments by supported VSBs/SMEs show up three years after the aid, by an increase in turnover of € 280,000** (including €80,000 of export turnover), compared to that of initially similar SMEs not benefiting from the scheme. This represents a 5% to 10% growth in their activity relative to the year preceding the aid.

The study of Bpifrance's funding for collaborative innovation projects highlights:

- a **positive and significant effect on the R&D expenditure of beneficiary SMEs and mid-sized companies**, corresponding in particular to additional jobs dedicated to R&D (€290,000 in additional annual R&D expenditure and 1.9 additional R&D jobs per year, representing respective growth of 19% and 11%) in relation to the year preceding aid;
- the **grants received by SMEs and mid-sized companies encourage them to raise more private funds** in relation to a situation in which the scheme did not exist;
- these **grants also have a significant positive effect on the number of patents published** (up 1.5 additional filed patents per year, i.e. twice the average number of patents filed in relation to the year preceding the aid).

AXIS 3

Development of financing intangible assets to support the competitiveness of French SMEs and mid-sized companies, supplementing the historical range of short- and long-term loans

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

- "Unsecured loans" now represent nearly half of the medium- to long-term loans distributed to SMEs and mid-sized companies by Bpifrance, i.e. €5 billion of annual financing for over 5,600 companies. They address transformation and modernisation issues with a strong intangible dimension;
- As accelerators and amplifiers of investment projects, according to the evaluations, they contributed to boosting the growth and employment of SMEs and mid-sized companies with a strong industrial dimension;
- The more comprehensive range of long-term financing, co-financed with the banks in the marketplace, has increasingly focused on project financing (renewables, real estate). It has addressed the needs of around 14,500 SMEs and mid-sized companies over 10 years;
- Short-term financing, heavily used at the beginning of the period with the establishment of the CICE prefinancing (for around 31,000 companies) and which is particularly important for mid-sized companies, generally addresses the needs of companies exposed to the long payment periods of their clients, particularly in construction.

Over the last ten years, Bpifrance has developed an increasingly deep offer of loans to cover the "intangible" portion of investments by SMEs and mid-sized companies. As stated in Part 1, the competitiveness of SMEs requires the integration of digitisation, robotisation and decarbonisation issues. Underlying this, there are needs for low-value assets⁽²⁾, needs for expenditure on training or more generally in the organisational components of the company. **According to studies, these expenses may be relatively more difficult to have financed by banks⁽³⁾**. However, they are essential for the growth of SMEs and mid-sized companies⁽⁴⁾. In addition to the financing of intangible assets, these loans offer a liquidity buffer to cover the working capital needs or external growth operations of SMEs.

(1) Brun, Évaluation de l'impact des aides individuelles à l'innovation distribuées par Bpifrance (Evaluation of the impact of individual aid to innovation distributed by Bpifrance), Oct. 2020; Bellégo *et al.*, Évaluation des aides aux projets de R&D (Evaluation of grants to R&D projects), 2020. <https://www.bpifrance.fr/nos-actualites/aides-a-linnovation-bpifrance-evaluation-de-limpact-des-aides-individuelles-et-des-soutiens-aux-projets-collaboratifs>. See the summary of this entire assessment plan on the DG Entreprises website.

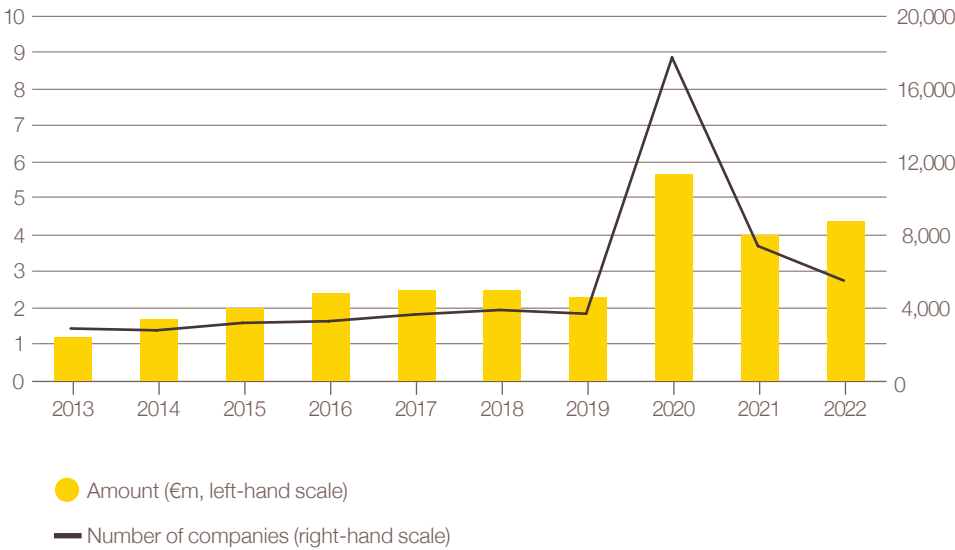
(2) Digital tools for acquiring and communicating with customers such as mobile applications, CRMs, websites, supplier relationship management tools, specialised robots, etc.

(3) Two *ad hoc* surveys of VSBs and SMEs conducted by Bpifrance in 2018 and at the end of 2020 with the aim of better understanding their investment practices and their financing needs led to very similar conclusions. For VSBs, the need for investment in intangible assets is significant (particularly in terms of digitisation), but still largely self-financed compared to capital expenditure. This reflects a proportion of unsuccessful financing requests, which is more than twice as high for intangible investments relative to capital expenditure. This strong statement has contributed, in particular, to Bpifrance's launch of a dedicated digital unsecured loan offer specifically for supporting the investments in intangible assets of VSBs, the Prêts Digitaux (Digital Loans).

(4) See Durand, Boulongnes, Investissements dans l'immatériel pour l'industrie (Investments in intangible assets for industry), December 2021.

These loans are "unsecured", i.e. without collateral on the company, or on the assets of its senior manager, and, in the standard case, allowing repayment over 7 years with two years of deferred repayment (in some cases now extended to 10 years). They are systematically distributed in co-financing with private bank loans that fund tangible investment and that often benefit from collateral. Their distribution quadrupled between 2012 (€1.1 billion) and 2022 (€4.4 billion, see Chart 12). As a hallmark of Bpifrance's banking offer, **they now represent nearly half of the medium- to long-term loans distributed to SMEs and mid-sized companies.**

CHART 12: UNSECURED LOAN PRODUCTION



Over the years, the offer was diversified depending on the company's stage of development, its business sector (Tourisme (tourism) loans, Bois (wood) loans, French Fab loans, etc.), the type of expenditure financed (digital loans, robotic loans, green loans, international growth loans), the company's risk level, its geographical location (e.g. "regional development loans", developed with the support of the regions) and the desired amount of credit. **The use of unsecured loans was significantly increased with the pandemic, to ensure sufficient liquidity to VSBs/SMEs, and mid-sized companies,** in addition to state-guaranteed loans (PGEs). Lastly, **Bpifrance has developed a dedicated offer for VSBs: "flash loans", which are distributed through a digital platform.**

The industrial dimension of the beneficiaries is significant, representing almost one-third of the amounts granted over the period⁽¹⁾. The offer of unsecured loans is particularly suitable for CAPEX-intensive sectors, with a high WCR and sometimes reduced margins, as in some industrial sectors. The types of investments targeted by unsecured loans (innovation in the broadest sense, internationalisation, energy efficiency of the production tool, etc.) also explains the relatively large weight of the industry. **Mid-sized companies are also particularly represented among the beneficiaries,** and have received almost half of the amounts of unsecured loans granted since Bpifrance's creation.

(1) Or 10,000 industrial SMEs and mid-sized companies.

Overall, €29 billion in unsecured loans was distributed over the period, to around 45,000 VSBs/SMEs and mid-sized companies. To what effect? An **initial quantitative evaluation of this range of loans was conducted in 2019 as part of Bpifrance's evaluation plan.** The results show, among other things, a **stimulating effect on turnover, investment and employment for SMEs and mid-sized companies who are often limited in their self-financing capacity** (see Box 9). In this context, the evaluation confirms more general results on the effect of intangible investment highlighted in other empirical studies⁽²⁾ such as more ad hoc studies of certain products in the range distributed over the 10 years and financed by the Investing in the Future Programme (PIA)⁽³⁾. The qualitative feedback confirms the importance of this ability to amortise over time to support and accelerate projects, particularly for innovation investments or international investments with a high degree of uncertainty and therefore a banking offer considered as cautious.

In addition to their direct effects on the growth of the beneficiary VSBs/SMEs, and mid-sized companies, these loans may also have helped encourage other banks to gradually offer a structured financing offer in a similar manner, reflecting the possible demonstrator effect and thus the second-order impact that Bpifrance may have on the SME financing ecosystem.

(2) See Boulongne, Durand (2021): *Investissement dans l'immatériel pour l'Industrie (Investment in Immaterial assets for Industry)*, Report to the Industry Minister.
(3) EY (2019) "Évaluation du dispositif Prêts Robotiques" (Evaluating the Robotic Loans scheme), EY (2016) "Étude d'évaluation à mi-parcours du dispositif des prêts numériques du programme des investissements d'avenir" (Midway Evaluation Study of the Digital Loans scheme for the Future Investments programme), Erdyn (2019) "Évaluation du dispositif « Prêts French Fab »" (Assessment of the French Fab Loans scheme).

Box 9

The impact of Bpifrance's unsecured loans

In 2019, Bpifrance carried out an evaluation of the economic impact of "unsecured loans" ("Prêts Sans Garantie" or PSGs).

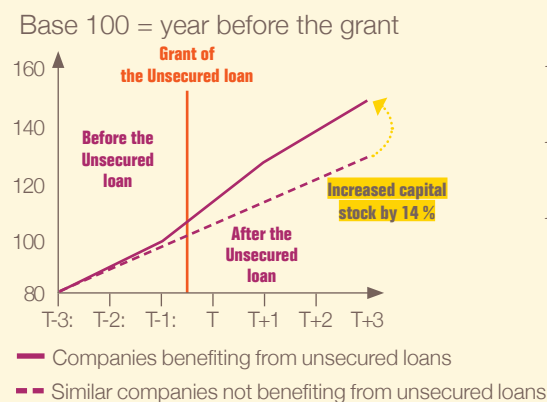
The study showed that these loans target expenditure that companies are often forced to self-finance due to their low pledge value: the average weight of self-financing in financing plans for this type of investment project is 41% for intangible investments, compared to only 20% for capital expenditure and 14% for real estate investments. On average, the beneficiaries of PSGs have a more limited self-financing capacity than the average of SMEs or mid-sized companies and do not necessarily want to open up their capital: nearly 70% of beneficiaries did not have the necessary liquidity to simultaneously self-finance these expenditures and to meet their short-term debt. Beneficiaries then use unsecured loans to consolidate their investment project in addition to financing granted by banks. The latter tend to seek Bpifrance's loan guarantee for a portion of this financing. More than a third of the beneficiaries (36%) benefited from the co-financing of a bank loan guaranteed by Bpifrance. This highlights the *potentially risky nature of these projects when they are analysed by banks*.

Finally, according to a counterfactual approach used in the study, unsecured loans help stimulate turnover, investment and employment. According to the methodology used, the average impact on the capital stock (tangible and intangible assets) is estimated to be an increase of between €460,000 and €750,000 over a three-year period. For one generation of support (the mass of SMEs and mid-sized companies funded in unsecured loans over a year), which would represent between €400 million and €640 million of additional capital stock. Employment among beneficiaries is also increased, with an increase in workforce growth of 8% at the end of 3 years compared to a counter-factual population (see chart below).

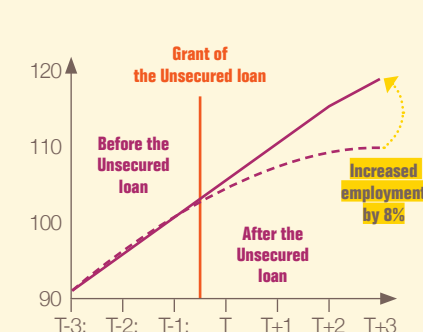
These results confirm more qualitative approaches⁽¹⁾ indicating that much of this support enable their beneficiaries to roll out value-added investment projects that would otherwise not have come to fruition, or not on the same scale.

IMPACT OF UNSECURED LOANS ON THE CAPITAL STOCK AND EMPLOYMENT OF BENEFICIARIES AFTER 3 YEARS

• CAPITAL STOCK CHANGES OVER THE 3 YEARS FOLLOWING THE GRANT OF THE LOAN



• CHANGE IN EMPLOYMENT OVER THE 3 YEARS FOLLOWING THE GRANTING OF THE LOAN



Apart from this increasingly specialised focus on financing intangible assets, Bpifrance offers a broader range of medium-to-long-term financing in loans or leasing for equipment and real estate investments. The volumes of this range have also increased over the past 10 years, albeit less rapidly than the market as the economic climate improved⁽²⁾. Overall, excluding intangible asset financing, Bpifrance co-financed nearly 14,500 distinct companies in their investment projects for €45 billion over 10 years, from €3.7 billion in 2013 to €4.6 billion in 2022. This range focused in recent years on project, real estate and renewable energy financing, which has become a pillar of Bpifrance's Climate Plan (see description below). In the case of renewables, an activity started in 2011 and derived from the expertise already present in the financing of real estate projects at Oseo, the tripling in the volume of operations over the past 10 years capitalised on the ramp-up of teams and the network on these projects, moving from followers to arrangers and co-arrangers. This increased the volume of financing from €560 million in 2013, to a high point of almost €1.7 billion in 2020 (€1.2 billion in 2022). They totalled €150 million before the creation of Bpifrance. These loans now account for between one-quarter and one-third of medium-to-long-term loans (excluding unsecured loans), compared to less than 10% before Bpifrance was set up.

Short-term financing, which is another historical and highly structuring activity for certain sectors⁽³⁾, has also progressed over the past 10 years. Firstly, prefinancing of the CICE (competitiveness and employment tax credit) was added to strengthen the range in 2013, in a context of business cash flow difficulties, then of rising working capital requirements with the economic recovery, before disappearing with the changeover of the tax credit to permanent social security reductions. Nearly 31,000 companies⁽⁴⁾ were supported in 6 years⁽⁵⁾, of which 18% of VSBs but also a strong presence of mid-sized companies until then less represented in other support ranges⁽⁶⁾. Although the activity has been normalised over the last few years with improved economic conditions and cash flows, the historic activity nevertheless provides an average of €8 billion in cash advances⁽⁷⁾ for 6,500 companies of all sizes each year. The range has also been deepened with the pre-financing of orders from SMEs and mid-sized companies, backed by European funds, and the launch of a digital platform for supplier relations for mid-sized companies and large groups, to speed up the digitisation of inter-company invoicing and strengthen supply chains by adding financing solutions.

(1) See studies on unsecured loans funded by the Investing in the Future Programmes mentioned above.

(2) Before the reversal due to the circumstances of the health crisis, see the beginning of the chapter.

(3) The mobilisation of receivables from public contractors, which is their main source of income, is particularly important for VSBs/SMEs in the construction sector.

(4) Legal units.

(5) The statistics relate to claims attributed before 1st January 2019. Companies that had one or more CICE claims that were not allocated by 31 December 2018 are not taken into account.

(6) Mid-sized companies cannot obtain early repayment of the tax credit and are the most interested in the pre-financing measure.

(7) Not taking into account future production

AXIS 4

Implementation of a range of non-financial support schemes to unlock the growth potential of SMEs and mid-sized companies

EXECUTIVE SUMMARY

- In addition to the rise of intangible financing, support for the growth of SMEs and mid-sized companies and their competitiveness has resulted in the structuring and large-scale roll-out of a non-financial support offer;
- at the heart of this offer, accelerators⁽¹⁾ enable managers of SMEs and mid-sized companies to get advice on how to adapt their strategy, governance, and processes to stimulate their growth projects. The cumulative stock of accelerated companies increased 25-fold between 2016 and 2022, with more than 140 promotions launched since 2015 and 3,500 SMEs and mid-sized companies accelerated;
- according to the initial evaluations of these programmes, this innovative action demonstrates significant returns for growth: higher value added (up 16 points) and investment (up €250,000) and the increased likelihood of becoming a mid-sized company (up 7.5 points);
- the range of support schemes has been progressively expanded in terms of training and consulting services, in particular on strategic priorities for industrial revitalisation and climate transition (nearly 2,000 beneficiaries of Climate Diag'Action by the end of 2022; and more than 50% of industrialists among the companies accelerated by Bpifrance since the start of the activity);
- Coaching has become a hallmark of Bpifrance, a fully-fledged instrument that is widely integrated into the range of financing and investment tools offered to managers.

EXECUTIVE SUMMARY

While access to financing is one of the decisive factors for competitiveness and the success of growth projects, it does not by itself necessarily ensure the full transformation and upgrading of the productive fabric, particularly in response to the multiple challenges and transitions that companies increasingly face.

Studies conducted by Bpifrance Le Lab, a *think-tank* created at the beginning of Bpifrance (see Box 10) have regularly highlighted the isolation faced by managers of VSBs/SMEs, and mid-sized companies in their day-to-day lives, and the difficulty of exercising their responsibilities in a complex and unpredictable environment. Identifying the major challenges ahead for their company, as well as designing and deploying a strategy to address them, are all the more difficult for them in this context. At the same time, the private offer of non-financial support services likely to be able to address these needs is mainly aimed at larger companies, and is therefore often difficult to access for VSBs/SMEs and even for mid-sized companies, and is potentially unsuited for their challenges.

(1) See definition below.

Box 10

Bpifrance Le Lab, a laboratory of ideas for SMEs and mid-sized companies

In 2014, Bpifrance created an SME research and analysis tool. When it was created, Bpifrance Le Lab was based on the observation that SMEs and mid-sized companies, although crucial to the French economy, were little known. The researchers testified to the lack of data, explaining the shortcomings of the academic research on these companies. Olivier Torrès, a PhD in Management Sciences and Professor at the University of Montpellier, claiming to be a "SMEist" frequently claimed: "SMEs are everywhere except in books". Bpifrance Le Lab therefore set itself the goal of better understanding SMEs and mid-sized companies to better finance and support them, by bridging the gap between the world of research with the business world. In concrete terms, Bpifrance Le Lab works to draw the best ideas from research and the field, to assign value to the experiences and testimonies of leaders, and to connect readers and leaders within a participatory research community.

Several studies constituted markers for Le Lab, and more broadly for Bpifrance. The study on the isolation of managers of SME and mid-sized companies published in 2016 showed the critical situation of business leaders facing many types of isolation, and confirmed the need to strengthen the manager's human capital, particularly through Coaching professions. **Studies on entrepreneurship in underprivileged neighbourhoods (QPVs),** in 2016 and 2019, showed that these QPV entrepreneurs were entrepreneurs like any other, but with even higher obstacles, and contributed significantly to the discussions on support schemes for Bpifrance's creation following the merger with the France Entrepreneurs Agency and the resumption of tasks previously carried out by Caisse des Dépôts. **The study on digital transformation in 2017 showed the urgent need to alert SME managers about the significant impacts of the transformation in the digital age** – 87% did not place digital transformation as a strategic priority for their company – and identified 3 management profiles with varying degrees of maturity and equally different needs (designated as "sceptics," "apprentices," and "conquerors"). **The climate studies, in 2020 and 2021, accompanied the implementation and deployment of Bpifrance's Climate Plan:** after an initial exploratory study on relationship between managers and climate issues, Le Lab, using case studies, analysed the "ecopportunities" to be seized, proposed an analysis grid of the 10 low-carbon transition projects related to the SNBC (National Low-Carbon Strategy), and showed the key success factors for the companies who had made the most progress in their transition.

This reinforced Bpifrance's belief in the need to deploy a range of support mechanisms for SMEs and mid-sized companies in order to develop their full growth potential and strengthen the impact of the financial support products offered by the bank⁽¹⁾. This conviction has been present since the creation of Bpifrance. Some of these services already existed at the time of Oséo, but from 2014-2015, influenced by a strong political commitment to foster SMEs, and in view of the observation that lower interest rates alone were not enough to revive investment, Bpifrance developed a **range of support services structured around three pillars:**

- a **full range of consulting services for SMEs and mid-sized companies**, providing the opportunity to conduct a 360° diagnosis of their business and identify its growth levers from multiple angles⁽²⁾. These consulting services, carried out by external consultants selected by Bpifrance (a network of more than 1,000 experts), are of three types: (i) the Missions Expertise Conseil, to support companies with their strategic development and structuring challenges; (ii) Diag'Action, to resolve a specific operational or technical problem; (iii) the Diag'Inno, which aims to support companies with their technological or strategic innovation issues;
- **Bpifrance University (a training programme) aims to** increase the skills of managers on specific topics that are central to the development of their business. This offer contains both face-to-face and online training;
- **networking actions** (within the framework of Accelerators and outside, by building on Bpifrance communities, in particular Bpifrance Excellence), enabling beneficiary leaders to join a community of entrepreneurs with its networking platforms and multiple events. This pillar allows leaders to share their experiences and develop new business opportunities.

Bpifrance Accelerators combine these three pillars by offering a promotion of 20 to 40 leaders a programme of intensive support over a period of one to two years. The objective is to help their beneficiaries to structure their growth project and achieve a new dimension in the development of their business, in order to nurture the ranks of the mid-sized companies of tomorrow. The first accelerators were launched in 2015 and 2016.

After these successful initial initiatives (see below), a very strong deployment followed thanks to the creation of a dedicated Executive Division in 2018. The cumulative stock of accelerated companies increased 25-fold between 2016 and 2022 (see Chart 13), with over 140 promotions launched since 2015 and 3,500 SMEs and mid-sized companies accelerated. This growth has been made possible by effective support from the network, a rigorous selection of service providers, and a certified approach to encourage industrialisation⁽³⁾. Thanks to its expansion, the Accelerator range has helped to support a growing number of small businesses⁽³⁾. In 2021, the proportion of VSBs increased to 10% of the total accelerated companies (compared to zero in 2016). The sectoral composition of accelerated companies also diversified as a result of the deployment of sector accelerators: with a strong industrial base (58% of new companies accelerated in 2022 were in the industrial or industrial services sector ⁽⁴⁾), accelerator programmes have increasingly addressed service sectors.

The cumulative number of consulting assignments carried out in the same period also increased tenfold, with over 10,000 assignments⁽⁵⁾ carried out between 2015 and 2021, of which 3,350 were started in 2021, reflecting the ramp-up in activity. Finally, between 2017 and 2022, the number of managers who received in-person training delivered by Bpifrance increased from about 1,300 to more than 5,000 per year. Bpifrance's toolbox for support is now a foundation for all its major strategic verticals, in particular in energy transition and industry (see more details in the following sections).

With the launch of Diag'Actions in 2020, Bpifrance is able to quickly address operational and technical issues, starting with the challenges related to the energy and environmental transition in partnership with ADEME. Drawing on a network of more than 150 specialised research firms, the deployment of these diagnostic assessments has been very rapid since 2020, with potentially significant effects for beneficiaries. Between 2020 and 2022, almost 2,000 Diag'Actions were conducted with French SMEs and mid-sized companies.

On average from 2015-2021, VSBs, SMEs, and mid-sized companies engaged in consulting or training activities accounted for 5%, 75% and 15% of beneficiary companies, respectively. In terms of sectors, the majority of industry and industry services accounted for over 55% of companies accelerated since 2015.

What is the impact of these support initiatives on the trajectory of SMEs and mid-sized companies? Unlike other support offered, these programmes do not directly aim to unlock or magnify the size of an investment project by contributing financial resources. It is more of an impetus given at the level of the entrepreneur who, through consulting services, training, and networking acquires the keys to (re)define their action priorities, secure their development project, and project themselves into the future.

Evaluation work has looked at the effect of the first SME Accelerator promotions (SME 1, 2 and 3 launched between 2015 and 2017, see Box 11). This work indicates that going through these programmes, on average, led to a significant increase in activity and investment growth in relation to similar non-accelerated companies, and that it increased the likelihood that some of them will reach mid-sized company status. The impact thus measured may be higher than certain purely monetary public support according to the study's authors. This initial conclusion shows the importance of non-financial support for VSBs/SMEs and mid-sized companies. Further work is currently underway to extend the study to new Accelerator promotions and to increase the depth of analysis. The qualitative feedback from the beneficiary companies seems, in any case, to confirm these initial results, highlighting the importance of this support to structure their business in a context of strong growth and sometimes substantial change.

(1) Even if these services were deployed independently of receiving financial support.

(2) Efficient production processes or *lean*, decarbonisation, cybersecurity, commercial efficiency, external growth, international roll-out, recruitment, innovation, etc.

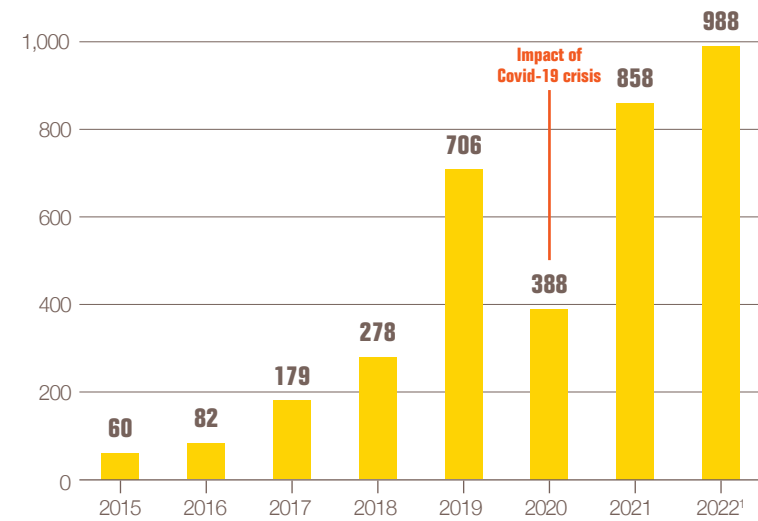
(3) The range of accelerators for small businesses ("PE" accelerators).

(4) For this precise calculation, companies that joined an accelerator related to industrial sectors and accelerated companies associated with the manufacturing industry and more broadly with industry-related services, construction, logistics, and goods transport, were identified as belonging to the industry or industry-related services.

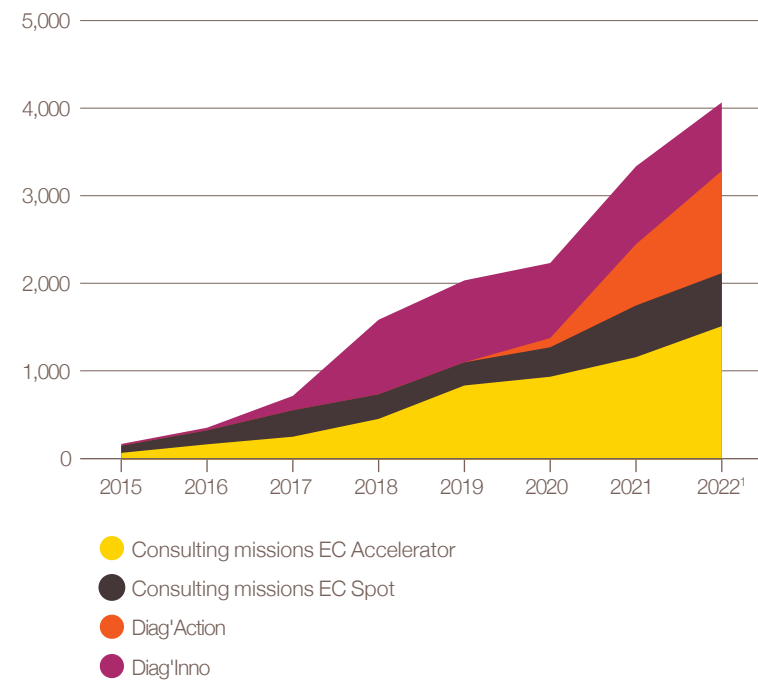
(5) Including the Missions Expertise Conseil, Diag'Actions and the Diag'Inno.

CHART 13: CHANGE IN SUPPORT ACTIVITIES

Change in Accelerator activity since 2015
(number of new companies accelerated per year)



Change in the Consulting activities since 2015
(number of assignments completed per year)



(1) Forecast

Box 11
The impact of Bpifrance Accelerators

In 2020, an impact study was carried out by researchers on the first promotions of SMEs and mid-sized companies⁽²⁾.

The analysis is based on a database of more than 5,000 growth SMEs over the period 2010-2018, which was obtained by cross-referencing the Bpifrance data with corporate tax data. In particular, the first three SME Accelerators (SMEs 1, 2 and 3) launched between 2015 and 2017 at the national level, each lasting 24 months, were studied.

According to **this econometric study using a counterfactual approach**:

- the growth in turnover of SMEs from promotions 2 and 3 of the SME Accelerator increased by 10 additional points in 2017 as a result of the programme;
- the added value saw additional growth increase by 16 points, while tangible investments increased tenfold (up €260,000).
- the programme also increased the likelihood that SMEs from the first accelerated promotion would become mid-sized companies in 2016 (up 7.5 points on average).

According to the authors, these impacts are significant, particularly in view of the generally weaker effects that are recognised for monetary assistance to businesses in France.

It should be noted that a second descriptive study was conducted in 2022 by the same researchers to test the resilience of accelerated companies in the context of the pandemic. It shows that companies accelerated before 2020 posted a change in turnover, in added value, and in payroll, that is significantly higher than that of equivalent non-accelerated companies. While this second study does not demonstrate that this finding is attributable solely to Accelerators (no causal impact was tested), it tends to indicate a certain resilience of accelerated companies in a very difficult context such as the pandemic.

(2) "Accélérer les entreprises ! Une évaluation ex-post », par Fabrice Gilles, Ferhat Mihoubi, Yannick L'Horty, 2020" ("Accelerating businesses! An ex post evaluation" by Fabrice Gilles, Ferhat Mihoubi, Yannick L'Horty, 2020").

AXIS 5

Development of a capital offer to consolidate and develop a network of high-performing and competitive SMEs, mid-sized companies, and large companies

EXECUTIVE SUMMARY

- In addition to equity financing of innovative start-ups, Bpifrance has deployed a direct equity offer targeting French SMEs and mid-sized companies, which are often family-owned and industrial, to support their growth;
- with over €1.7 billion directly invested in more than 760 companies through the *Small Cap* activity, Bpifrance has become the leading French investor in SMEs and mid-sized companies. 56 SMEs that received equity investment have become mid-sized companies in the past 10 years;
- a major capital offer has also been deployed for the network of mid-sized companies and major strategic sectors, with significant transformation/consolidation challenges following major macroeconomic or technological shocks (automotive, nuclear, wood, etc.);
- the capital offer has also taken the form of equity investments in large French companies, which are considered strategic for the national economy and with a strong industrial component;
- to increase the capital offer for companies, Bpifrance is also a subscriber in over 500 private equity funds managed by 200 partner management companies. These funds have more than 5,000 SMEs and mid-sized companies in their portfolios. Bpifrance has contributed to the growth of funds whose size increased significantly (by 50% on average and doubled in the *venture capital* segment);
- going from €20 billion in assets under management in 2013 to €50 billion today, Bpifrance has become one of the largest direct and indirect capital investors in Europe. The performance of this activity has gradually increased capacity to act in accordance with national investment priorities, by focusing increasingly on external resources (third-party management), especially with the LAC fund;

EXECUTIVE SUMMARY

In addition to the action described above on the innovative start-up ecosystem, **Bpifrance has more broadly sought to support the capital offer for French SMEs and mid-sized companies**, "sleeping beauties" or ambitious companies, *ultimately* aiming to develop and consolidate a French *Mittelstand* with international influence.

For SMEs, it is about finding ways to change scale and become mid-sized companies. For mid-sized companies, the objective is to strengthen their position, particularly internationally. Capital resources are crucial, especially for funding external growth. This revitalisation of the productive fabric can also involve a transfer-takeover that also requires long-term resources to ensure the success of the operation.

Developing a growth capital offer, small-scale capital transfer for SMEs and mid-sized companies in all regions, was one of Bpifrance's key achievements over the past 10 years. As with support of the innovation ecosystem, Bpifrance acted both with a capacity to invest directly in the capital of French SMEs and mid-sized companies and with a deep action on the French ecosystem of investment capital through its funds of funds.

Direct investment in the capital of SMEs and mid-sized companies

Bpifrance's direct investments in growth capital and small capital transfer are part of a long-term partnership with entrepreneurs (Bpifrance aiming to be a "patient investor", see the doctrine described at the beginning of the chapter). This translates into strong involvement on a daily basis alongside them. **Since Bpifrance's creation, these investments have been strengthened in terms of volume and amounts.**

The expansion of this offer aims to cover an increased disparity of needs, in line with the major transformations of economic models that have occurred over the past 10 years: support for international growth, digitisation, decarbonisation of production processes, and targeted support for strategic sectors (such as automotive, tourism, wood and eco-materials, renewables).

The action can be broken down into three areas:

- a capital investment capacity in SMEs and small mid-sized companies highly decentralised in the regions to support external growth operations, small transfers of companies with a high degree of private asset management (*small-cap* activity);
- an investment capacity in SMEs and mid-sized companies in strategic sectors to consolidate competitive groups, particularly internationally (mid-cap activity);
- an investment capacity in the capital of the largest strategic groups for French growth to stabilise their shareholder base (large-cap activity).

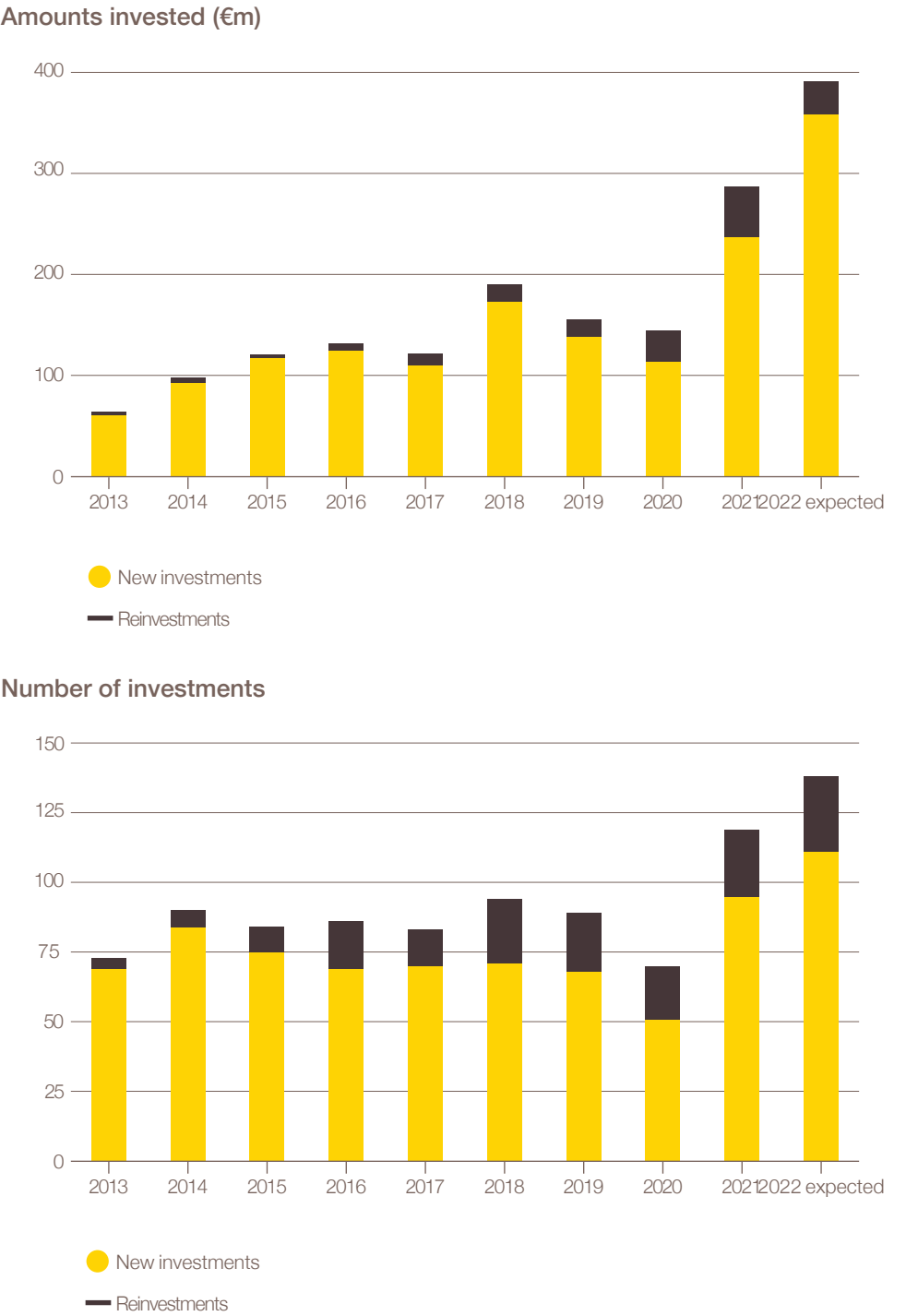
The investment activities for SMEs and small mid-sized companies (*small cap*) which are highly regionalised with support from the Bpifrance network, has resulted in (see Chart 14):

- the injection of over €1.7 billion in capital to over 760 companies, **making Bpifrance the leading French investor in SMEs and mid-sized-companies;**
- **an average ticket which increased continuously over the period** (from €1 million in 2013 to €2.5 million in 2021) in response to an increasingly significant share in small mid-sized companies (14% of the portfolio in 2012 compared to nearly 25% in 2022, Bpifrance being present in 16% of French mid-sized companies that have opened their capital);
- **54% first-time capital openings**, reflecting the priority objective of democratising access to French SME and small mid-sized companies' equity, particularly family-owned, (38% of companies in portfolio at the end of 2021). With appropriate actions to limit the dilution of the share ownership⁽¹⁾;
- **full participation in corporate governance**, dedicated support services to stimulate their potential (230 accelerated companies and over 300 annual support projects over the last few years) and early awareness on best governance practices. A support that is highly appreciated by managers;
- A threefold increase in the **annual flow of build-up transactions** between 2013 and 2021, enabling over 600 companies to grow and consolidate their position on the market, a highly capital-intensive but rewarding strategy, in particular for the creation of mid-sized companies;
- **an action closely linked to the regions thanks to a decentralised network of investors;**
- **A leverage on private funds.** As a result, €1 of capital provided by Bpifrance was supplemented on average by €2.9 in private equity and, more generally, by €4.8 in long-term financing (equity + debt).

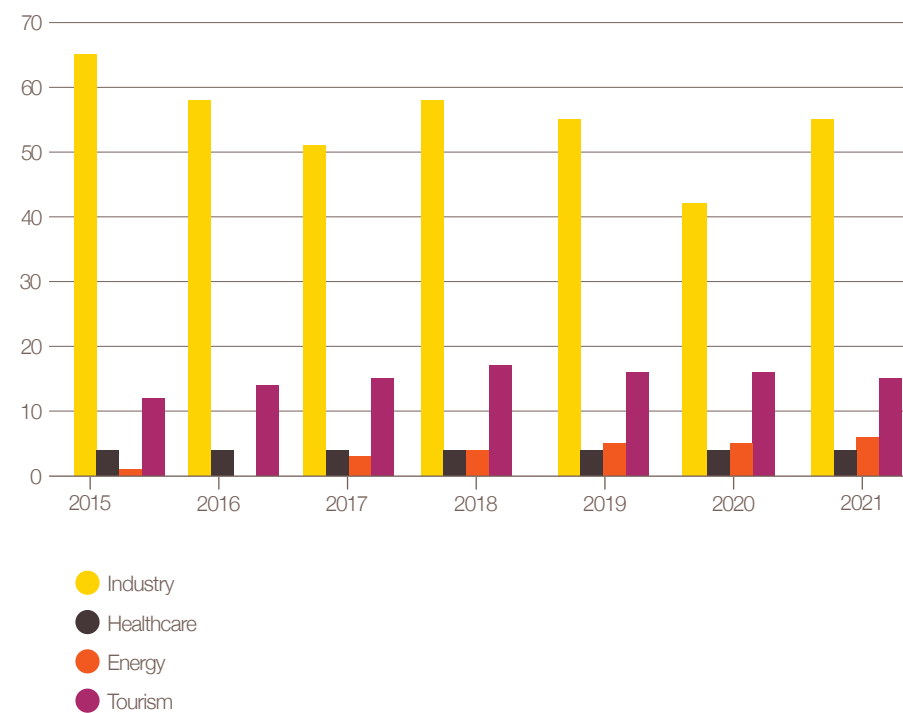
The performance of portfolio companies or those sold over the last ten years shows the dynamic evolution of profitability, job creation, export turnover and the generation of mid-sized companies (see Chart15). On average, investments increased by about 40% (turnover and EBITDA) between the initial investment and Bpifrance's exit from the capital. They also saw employment increase by 32%⁽²⁾.

(1) With, in particular, the use of small convertible bonds, between €200,000 and €400,000.
 (2) Estimates based on a sample of 400 disposals.

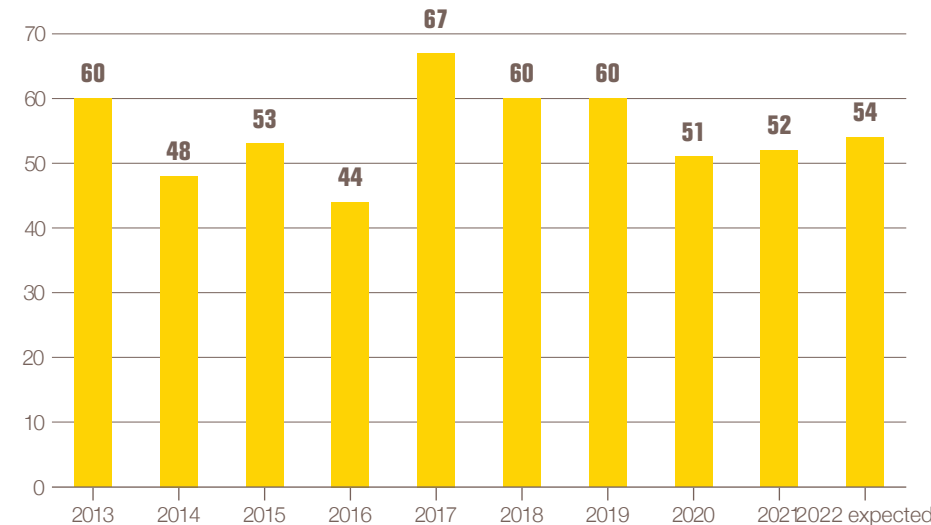
CHART 14: BPIFRANCE'S DIRECT ACTION IN SMALL GROWTH-CAPITAL AND TRANSFER-CAPITAL FOR FRENCH SMES AND MID-SIZED COMPANIES



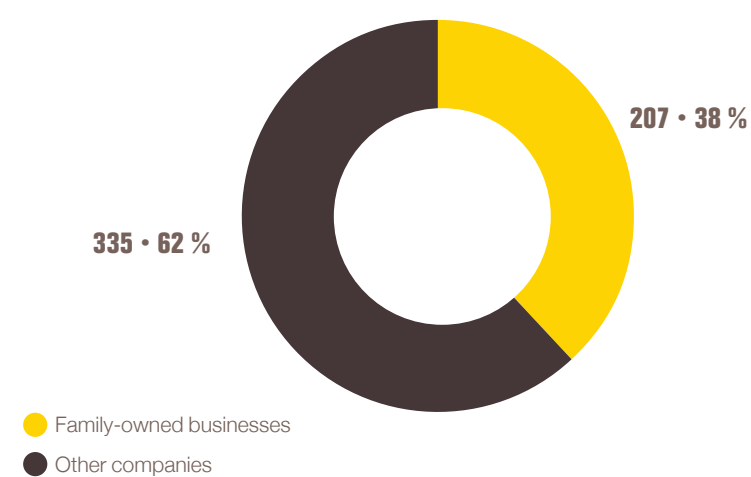
Distribution by sector (%)



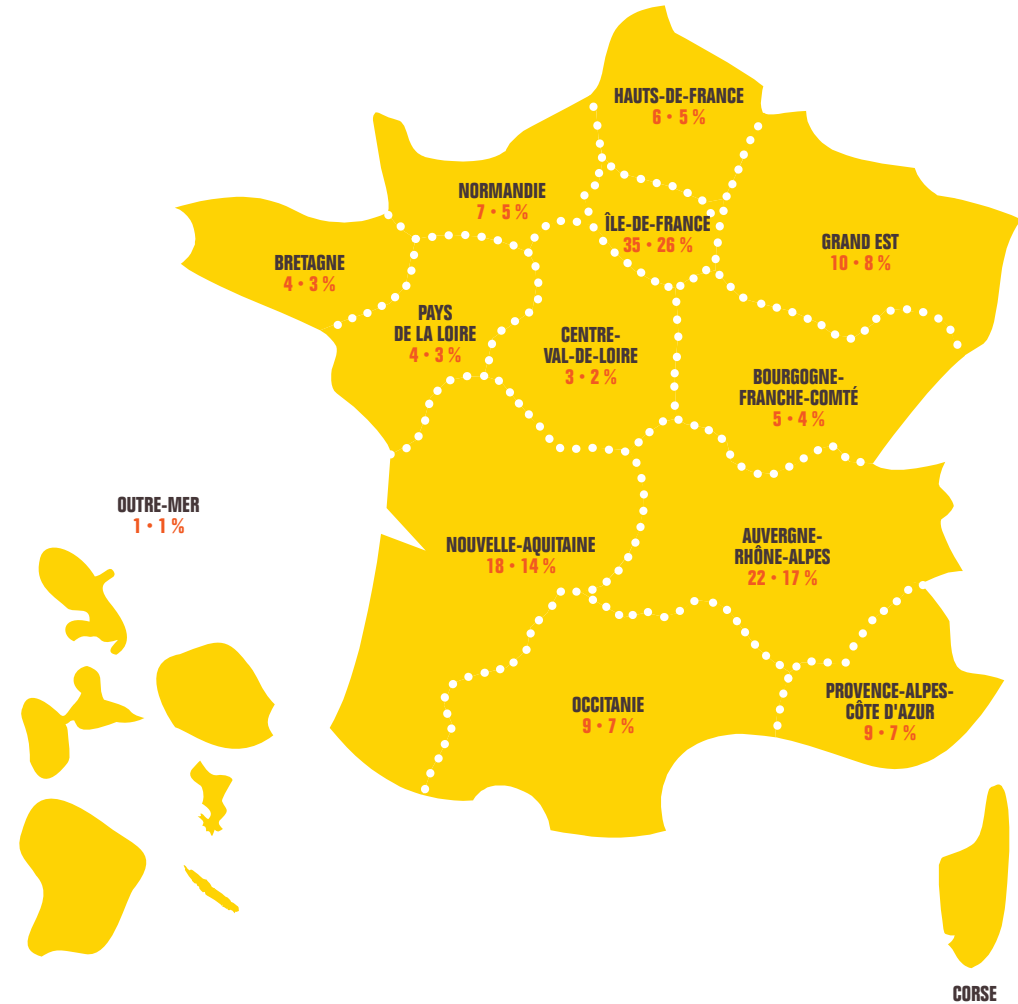
Weight of first-time openings (% investments)



Weight of family-owned businesses (number • %)

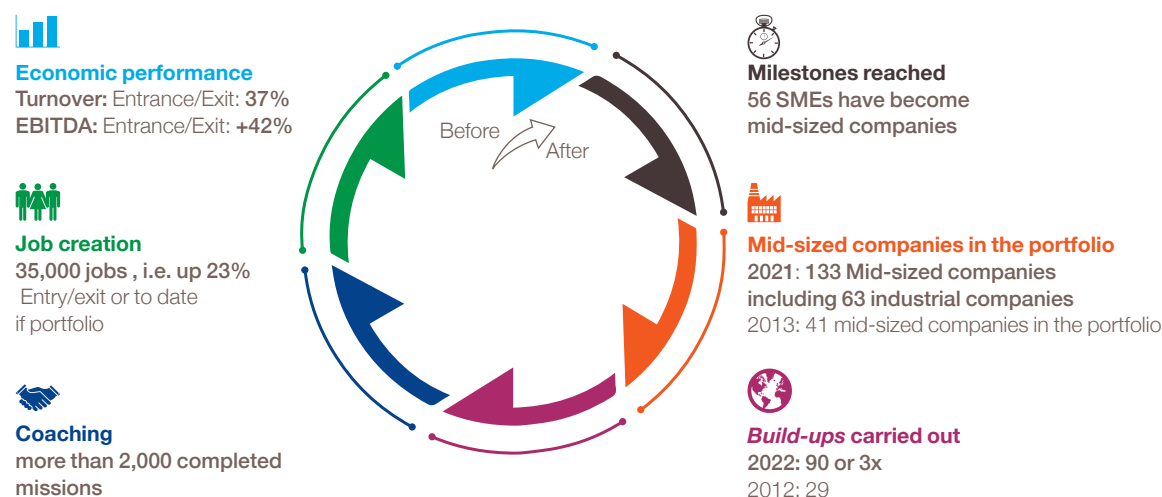


Regional distribution of mid-sized companies in the portfolio



Caption: Number of companies / region share in the total

CHART 15: DYNAMICS OF COMPANIES RECEIVING DIRECT INVESTMENT IN SMALL CAP GROWTH-TRANSFER CAPITAL



The capital offer has also been developed for larger mid-sized companies (known as mid cap investments) and large sectors perceived as strategic, some of which have major transformation/consolidation challenges following significant macroeconomic or technological shocks. The objective is also :

- to seek leverage on co-investors/co-financiers since Bpifrance systematically co-invests with French or other countries' capital in these companies;
- to get involved in their governance to promote Bpifrance's priorities. The capital offer has **also taken the form of equity investments in large French companies**, considered strategic for the national economy and which can benefit from a stable long-term shareholder ownership (known as large cap investments).

Through Mid & Large Cap, Bpifrance has the capacity to support medium to large-sized, listed or unlisted companies by providing long-term capital as a minority partner active in governance. In this way, €12.6 billion has been deployed over the past 10 years. In 2022, €2.5 billion was invested in around 200 French companies, of which €1.4 billion was invested in unlisted companies. This established positioning over the past 10 years has made Bpifrance Mid & Large Cap a natural partner for many investors, both French and international (sovereign funds, European and US investment funds). A natural partner also for entrepreneurs, as illustrated by numerous transactions alongside family groups or carried out during initial openings of capital. Bpifrance also has the capacity to be a long-term shareholder anchoring the capital of large listed French companies who wish to have an active shareholder in their capital and governance, supporting their medium-term development strategy. This specific positioning of Bpifrance over the past 10 years has enabled it to launch the €5.2 billion LAC1 fund, to strengthen investment capacities in this segment. This equity investment activity is also essential for Bpifrance's economic balance (with the funds of funds activity described below).

Industry optics are very strong in all these actions. Industry and industrial services accounted for about 70% to 75% of the value of the equity investments portfolio at the end of 2021 and the beginning of 2022, compared to less than 50% in 2015. Bpifrance Mid & Large Cap is particularly active in the automotive (with a dedicated fund), aerospace, and semiconductor sectors, ensuring that companies have a long-term presence in their shareholders and contributing to the structuring of these sectors that

have particular importance for the French economy. With iconic holdings such as Valeo, STMicroelectronics, Bpifrance Mid & Large Cap is also actively involved in the field of energy and environmental transition, both by supporting the transformation of invested companies through its presence in their governance (regardless of their sector), but also by pro-actively investing in the EET sector, which requires equity and long-term vision. For example, in the field of renewable energy plants (solar, wind and innovative technologies) and recycling, where Bpifrance has deployed significant capital to support project start-up and internationalisation. Other sectors/investment theses have been supported by Bpifrance's equity offer, particularly in healthcare, education and healthcare services.

The development of the capital offer for SMEs and mid-sized companies through the action of funds of funds

The expansion of the capital offer to French SMEs and mid-sized companies has also involved supporting the ecosystem of private equity funds over the past 10 years. As previously described for innovation capital (seed capital, venture capital, and growth capital), Bpifrance's funds of funds generally seek to strengthen the capacity of French *private equity* investors to invest in the national productive fabric, in all segments. In addition to innovation capital, Bpifrance funds of funds invest in growth capital and transfer funds, whether they have national or regional coverage.

At the end of 2021, Bpifrance's Fund of Funds Division saw its assets under management more than double since 2012 (€13 billion under management at the end of 2021 compared to €5 billion in 2012) and has set a pace to deploy capital in private equity funds that is nearly four times faster than the period preceding the creation of Bpifrance (€1.5 billion deployed in 2021 compared to €400 million in 2012)⁽¹⁾. In total, Bpifrance is now a subscriber in more than 500 private equity funds managed by 200 partner management companies (with an average share of 13% in the capital of these funds raised over the period, which has decreased over the period across all intervention segments, alongside an increasingly mature ecosystem).

Over the past 10 years, the fund of funds investment policy has aimed to:

- **increase the size of French private equity funds**, giving them the means to support the growth of French start-ups, SMEs and mid-sized companies: an increase of more than 50% in the size of innovation capital funds, not far from doubling if seed funds are excluded, (see previous section); an increase of 40% in the size of growth capital partner funds, and of 50% in the size of regional funds. In 10 years, French management companies managing over €1 billion in assets have multiplied fivefold. This expansion of the size of the funds is significant and gives them more leeway in their ability to monitor and support companies. The role of the funds of funds - originally a provider of funds to private management companies - has been combined over the years with coaching support for these teams;
- **participate in the regeneration of the ecosystem by funding new teams or new verticals of established management companies**: in 2021, for example, Bpifrance supported 18 first-generations funds.

(1) See *Les fonds partenaires et Bpifrance, bilan 2021* (Partner funds and Bpifrance, 2021 review).

By the end of 2021, partner funds had over 5,000 SMEs and mid-sized companies in their portfolio, compared to 3,000 in 2012. While digital (69% between 2012 and 2021) and healthcare (27%) dominate the investments of partner funds in start-ups, industry (33%) is the second sector of intervention for growth capital funds and is expected to gain momentum with the development strategy in the coming years of a new class of investors in *industrial venture* capital. The ecosystem performance has been steadily increasing over the past 10 years, with multiple disposals of around 2.5 times the initial amount invested in disposals between 2020 and 2021, compared to 0.9 in 2012.

The funds of funds' investment policy channels a portion of Bpifrance's own funds as well as other public funds (SGPI as part of the Investing in the Future Programme (PIA), CDC Group) and private funds (including insurers) into the French private equity ecosystem. Since 2020, Bpifrance has also taken the initiative to open up the possibility for households to invest in French private equity. The results of this initiative have been successful and illustrate the trust that networks have in Bpifrance, with €200 million collected from 10,000 investors from the first two Bpifrance Entreprises funds. This share has also had a positive "second-order" effect on private equity market participants: over the recent period, with around fifteen management companies actively considering developing a fundraising channel for individuals, drawing inspiration directly from Bpifrance's initiative and know-how⁽¹⁾.

In total, direct or indirect equity support *through* funds of funds has increased sharply over the past 10 years. **Going from €20 billion in assets under management in 2013 to €50 billion today, Bpifrance has become one of the largest direct and indirect capital investors in Europe.**

(1) Source: public information and available on the internet, 2021-2022.

AXIS 6

Supporting the internationalisation of companies: a more substantial toolbox for SMEs and mid-sized companies

EXECUTIVE SUMMARY

- Support for the internationalisation of French companies has been a strategic priority since the creation of Bpifrance, aiming to thicken the national export fabric;
- since 2013, efforts have been made to disseminate the range of financial and support offerings for internationalisation, drawing on Bpifrance's regional network;
- initially, with the integration of Business France account managers in regional offices, then in 2017 with the integration of the public guarantees for export activity inherited from Coface, and the development of a small export credit offer in addition to the market's, the toolbox for French exporters has become more accessible;
- over the past 10 years, 20,000 companies have been supported for internationalisation projects *through* export financing, bank loan guarantees, and export insurance, and 250 large SMEs and mid-sized companies have been coached for international missions;
- an action from the first steps on the international stage to actions on major export contracts, which has proven its worth: increased export turnover and employment measured among beneficiaries, especially during the internationalisation start-up phases (business development insurance), which may have contributed to an increase in the number of French exporters over the period.

EXECUTIVE SUMMARY

While all Bpifrance's support is intended to revitalise the productive fabric and increase its competitiveness, **realising growth projects on international markets remains a challenge in its own right**, particularly for SMEs and mid-sized companies. The decline of France's weight in export markets over the last 20 years and the persistence of a high trade deficit serve as a reminder of the need for the French economy to strengthen its network of national champions by adding an international dimension.

However, **internationalisation is a costly, complex and risky operation for SMEs and mid-sized companies**. Financial stability is important to bear the fixed costs inherent to any development strategy beyond ones' borders, especially since the investment to be planned may have a more difficult intangible aspect.

Support for international development projects is therefore quite naturally an important aspect of Bpifrance's action. This has been the case from the outset with a range of **financing products** (unsecured loans for international development, bank loan guarantees for the same purposes) that **has grown over time into more specialised operations** (developing a buyer/supplier credit offer for the financing of export contracts of SMEs and mid-sized companies, development of an investment fund dedicated to the international *build-up* of SMEs and mid-sized companies, development of an increasingly

broad range of support services, and finally consolidated with the integration in 2017 of the range of public export guarantee products (formerly Coface public guarantees).

One of the objectives is to spread this offer to VSBs/SMEs, and mid-sized companies throughout France, and thereby increase the number of French exporters. This is achieved *through* strong support from the Bpifrance network, which also includes partners, such as Business France⁽¹⁾. **Bpifrance has thus become a key player in supporting French exports, from VSBs to mid-sized companies and large groups.**

Over the past 10 years, Bpifrance's support for internationalisation projects resulted in:

- Over **8,500 projects financed directly by credit** (including *through* dedicated unsecured loans, buyer/supplier credit facilities) **or indirectly** (credit guarantee from private banks) for €12 billion in financing received by SMEs and mid-sized companies;
- **16,000 companies supported by export insurance products** totalling €191 billion of financing covered, ranging from support for internationalisation start-ups (including cover of business development risk) to cover of the risk associated with export contracts (buyer/supplier credit insurance);
- **250 international inspiration and business development projects deployed in partnership with Business France and Chambers of Commerce and Industry, all led by the Regions**; over 100 immersion projects for innovative start-ups and SMEs abroad with the aim of better understanding new expanding markets, and the launch of six international Accelerators (with 104 companies accelerated).

This support activity was structuring from the outset with the integration of 50 Business France employees into the Bpifrance regional network and was strengthened with the structuring in 2017 of the France Export team ⁽²⁾, coordinating the efforts of Bpifrance, Business France, and the Chambers of Commerce and Industry⁽³⁾. **Ten offices were created on five continents⁽⁴⁾**, with the aim of being as close as possible to exporters. They encourage Bpifrance's partners and entrepreneurs (Business France, local banks, professional federations, etc.), provide commercial support to French companies and their customers abroad, and offer representation on all Bpifrance's business lines (business development and networking). In total, over **31,000 companies were supported in their international development** by Bpifrance between 2013 and 2022.

The various export support products provide profiles of different exporters, marked by a genuine continuum of financing:

- The **Business Development Insurance**, for example, is intended to cover risks associated with the start of an export activity. It therefore naturally addresses small businesses (49% are VSBs and 46% of SMEs excluding VSBs), of which the manufacturing and information and communication sectors are the best represented (with respectively 25.2% and 24.8% of supported companies);
- **Export financing products** aim to help companies grow their export activity. They are therefore aimed at slightly larger companies, on average, and often already established in their export activity: SMEs excluding VSBs account for 69.6% of supported companies, compared to 15.6% for VSBs.;
- **Export bond insurance and working capital insurance** support large export contracts (with an average ticket of €2.2 million). The companies supported are therefore mainly large SMEs and mid-sized companies (SMEs excluding VSBs and mid-sized companies accounted for 70% and 15% of the beneficiaries of these products) and are very often rooted in the industrial sector (63% of supported projects);
- Finally, **export credit insurance** addresses large-scale export projects with an average contribution of around €170 million, largely led by mid-sized companies and large companies (respectively 35% and 25% of the projects supported for 25% and 71% of the amounts committed) in the industrial sector (58% of projects).

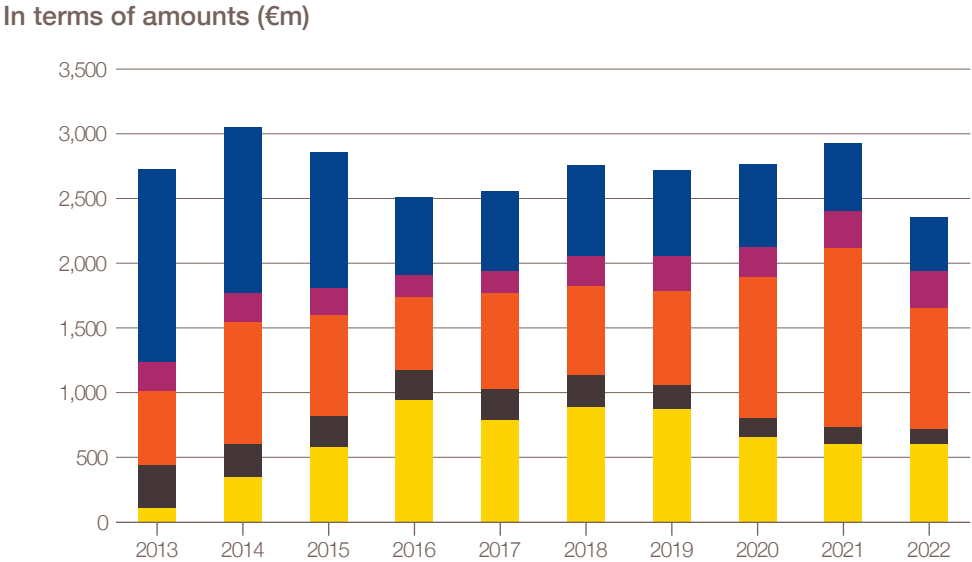
(1) *Ultimately*, the number of employees dedicated to international financing and coaching rose from 0 to 150 employees between 2012 and 2022.

(2) The France Export team includes the regions, Business France, CCI France and Bpifrance.

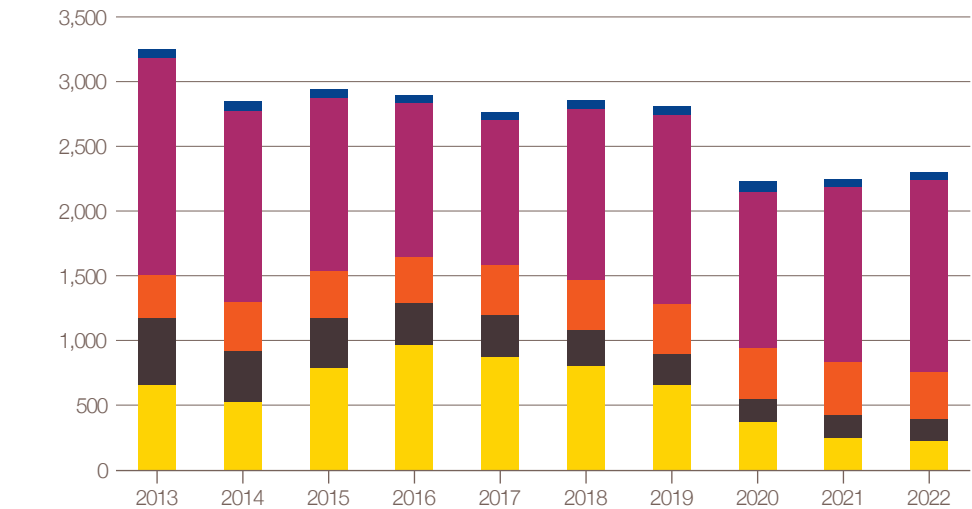
(3) Bpifrance's focus on supporting the top exporters of large SMEs and mid-sized companies and the Chambers of Commerce and Industry on VSBs, which are also supported by financing and business development insurance products.

(4) These offices are located in New York, Mexico, Düsseldorf, Casablanca, Abidjan, Dakar, Nairobi, Johannesburg, Dubai and Singapore.

CHART 16: CHANGE IN INTERNATIONAL SUPPORT SCHEMES FOR SMES AND MID-SIZED COMPANIES (EXCLUDING CREDIT INSURANCE)

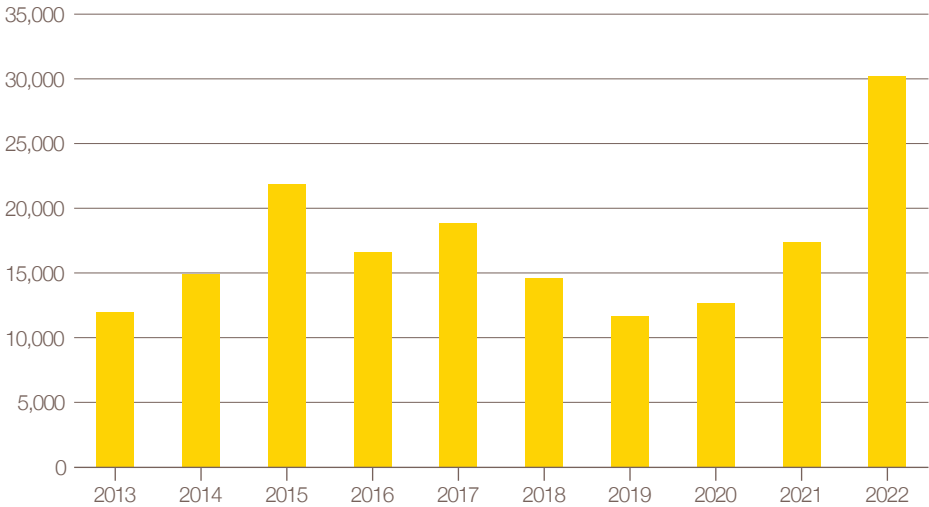


In terms of number of companies supported



- Loans
- Loan guarantees
- Export Bonds and Working Capital Insurance
- Business Development Insurance
- Foreign exchange risk insurance

CHART 17: CHANGE IN THE TOTAL AMOUNT OF CREDIT INSURANCE (IN €M)



Some of these schemes have been subject to internal evaluations in recent years. This is the case for the Business Development Insurance, the Export Bond Insurance and Working Capital Insurance (see Box 12). These studies **state that obtaining these supports is key for financing internationalisation operations** (business development costs, obtaining a bank guarantee or pre-financing, etc.). **The beneficiaries, both SMEs and mid-sized companies, of these products tend to outperform their peers with similar business profiles and initial international experience.** Feedback from managers confirm the importance that this type of scheme can have on the often complex, costly and uncertain international approach of both SMEs and mid-sized companies.

Regarding the buyer/supplier credit facility that Bpifrance has developed over several years for small amounts of a few tens of millions of euros, the perception of the impact of the product by surveyed customers⁽¹⁾ is significant: 70% believe that obtaining the product had a strong impact on their international project, 30% a strong impact on the speed of deployment (30% average impact) while two-thirds of them only had government funding options to use in order to cover their needs.

The results of these products are encouraging. It is true that the trade deficit has, at macroeconomic level, remained largely negative over the last ten years, and the energy crisis in 2022 is contributing to its expansion. More than ever, international activity is a crucial issue for the French economy. However, the number of French exporters has increased over the last 12 years (nearly 140,000 exporting VSBs/SMEs in 2022 compared to 116,000 in 2011, according to Customs). **The network of French exporting companies is therefore becoming more dense, even though scaling up remains a major challenge for the rebalancing of external accounts.**

(1) Flash survey of export finance customers, Bpifrance, 2022.

Box 12

The impact of Bpifrance Assurance Export's support

An **econometric study conducted on companies benefiting from Business Development Insurance shows that:**

- these companies had **faster export development than non-beneficiary companies that were initially similar** (with 11 percentage points of additional annual export turnover growth after 3 years compared to counterfactual firms, i.e., growth three times faster).
- this **impact is mechanically reflected in the increased growth in their total turnover** (with 4 additional percentage points per year more than the counterfactual firms, i.e., doubling the growth rate), **as well as their investments** (with 3 additional percentage points per year, 50% faster), **and employment** (with 2 additional percentage points per year, twice as fast);
- this **effect is significant for both SMEs excluding VSBs** (9 points of export revenue growth over 3 years, i.e., a cumulative increase of € 332,000 over 3 years) **and for VSBs** (with an additional 15 percentage points in relative variation, i.e., a cumulative increase of €128,000 over 3 years).

Overall, these impacts allow an estimated gross leverage ratio of €12 of additional turnover for €1 in public funds used in the scheme⁽¹⁾. IT should be noted that these impacts only cover cases of companies that were already exporting (60 % of beneficiaries) and do not take into account the potential effect of the product on the rate of companies beginning to export (in practice, this rate is higher among beneficiaries but no counterfactual case has been measured here to deduce the net impact attributable to the product).

IMPACT OF BUSINESS DEVELOPMENT INSURANCE

Impact variable	Companies supported (a)	Initially similar companies (b)	Impact of support (a-b)
Annualised export turnover growth over 3 years	15.3%	4.5%	+11 percentage points ***
Variation in export turnover over 3 years	€268,000	€64,000	+€205,000 ***
Annualised turnover growth over 3 years	4.4%	1.8%	+3 percentage points ***
Annualised growth of intangible assets over 3 years	13.8%	7.9%	+6 percentage points ***
Annualised growth of total non-current assets over 3 years	12.4%	8.3%	+4 percentage points ***
Annualised job growth FTEs over 3 years	4.2%	1.9%	+2 percentage points ***

Source: Bpifrance, Insee (Fare)
Scope: 2,203 companies benefiting from Business Development Insurance between 2012 and 2014, for which export turnover in the year prior to and two years after the support is available, and whose export turnover before support is >0.

Methodological note: the average growth rate is calculated between T-1 and T+2, T being year of support. Significance threshold ***0.001 **0.01 *0.05.

An evaluation of the export bond insurance and working capital insurance was carried out, which showed that:

- **the use of these products resulted in additional growth in export turnover** of 6 points in the year following the use of these products compared to initially comparable non-beneficiary companies, and 2 points of employment growth;
- A **survey of beneficiaries also suggests that guarantee schemes enabled them to obtain financing that they would not have obtained without Bpifrance's assistance:** 72% of export bond insurance clients stated that they would not have obtained their bond without Bpifrance's support, and 69% of working capital insurance clients indicated that they would have obtained less than 50% of the amount requested without this support;
- Finally, interestingly,**in the portfolio of export projects for companies using export guarantees, a comparison of the countries of intended use of projects covered by the scheme vs. non-covered projects showed that the projects addressed relatively more risky foreign markets** (though the export destinations rated 3 or more by the OECD account for 86% of working capital insurance clients - 3 on a scale of 1 to 7, with 7 being the riskiest position - these destinations represent only 64% of projects for which the pre-financing guarantee is actually used).

IMPACT OF EXPORT BOND AND WORKING CAPITAL PRODUCTS

	Companies supported	Similar companies
Revenue growth rate in the year following the use of Assurance Export products	7%	5%
Workforce growth rate in the year following the use of Assurance Export products	3%	1%
Export turnover growth rate in the year following use of Assurance Export products	7%	1%

Source: Bpifrance, Insee (Fare)
Scope: companies benefiting from an export bond or working capital insurance between 2015 and 2018, for which export turnover in the year prior to and 1 year after support are available, and whose export turnover before support is >0.

Methodological note: the average growth rate is calculated between T-1 and T+1, T being year of support.

(1) Fund covering the share of reimbursement of business development expenses in the event of commercial failure.

An action addressing major sectoral and structural challenges for the productive fabric

Measurable impact on economic dynamics and employment

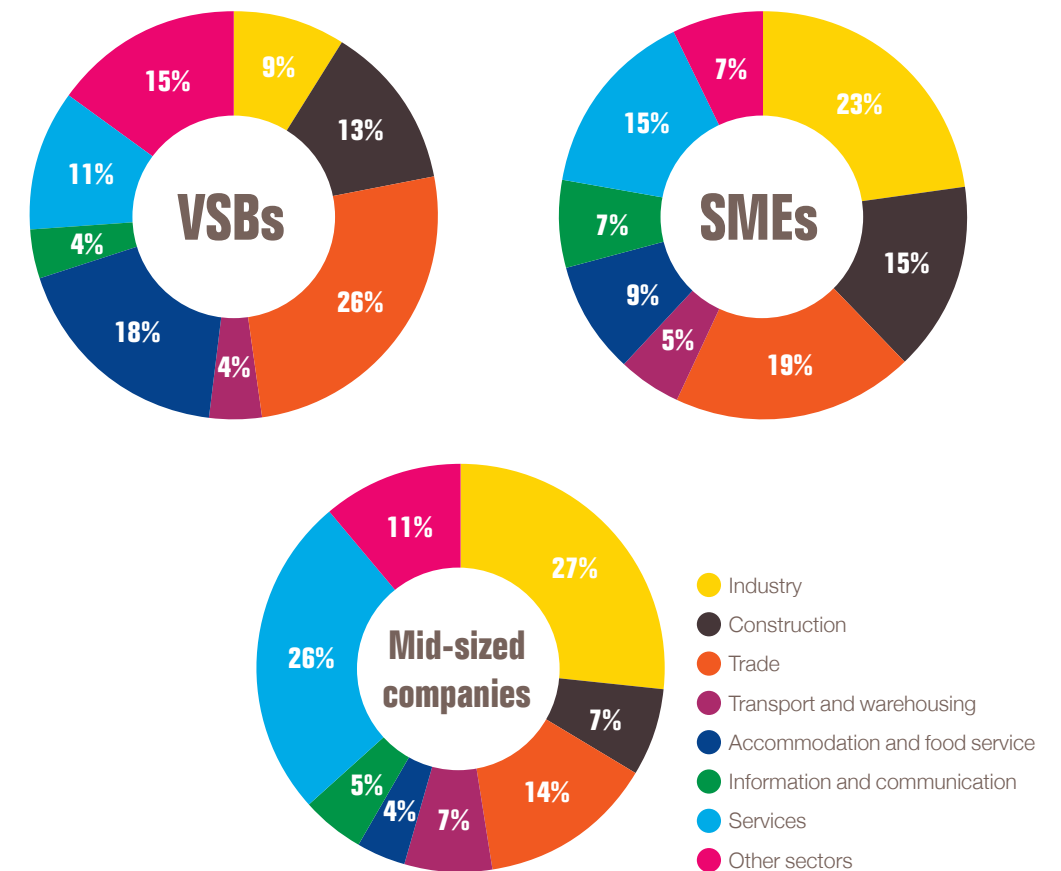
An action that supports the major sectoral challenges of the French economy

Through the entire range of support described in the previous sections, Bpifrance has aimed to accelerate the transformation of the French economy with in-depth action alongside its banking and investors partners, in all regions and in a wide variety of sectors.

The mapping of the sectors addressed by the different types of intervention reveals several elements (see Chart 18):

- **Industry has been at the core of Bpifrance's actions for the past 10 years** (see details below). The industrial sectors account for a large proportion of beneficiaries, particularly SMEs (23%) or mid-sized companies (27%). The share of industry increased particularly in mid-sized companies between 2013 and 2022, from 20% in 2013 to 35% in terms of number in 2022, mainly due to the deployment of innovation aid and unsecured loans in this sector, as well as Bpifrance's integration of Assurance Export's activities;
- **Among VSBs, the sectoral distribution is more balanced**, with a **strong relative share of retail trade** (26%) **and tourism** (12% for accommodation and catering), sectors that were particularly supported by the credit guarantee (creation and transfer-takeover);
- **Construction is also strongly represented by beneficiary SMEs**, in particular with short-term credit action (mobilising receivables from major public authorities).

CHART 18: DISTRIBUTION OF THE NUMBER OF SUPPORTED COMPANIES ACCORDING TO THE COMPANY'S MAIN BUSINESS SECTOR⁽¹⁾ AND ITS SIZE



La French Fab: strong support for industry transformation over the past 10 years

From the early years, Bpifrance participated strongly through its range of support in the emergence of La French Tech (especially *through* the innovation financing offer, see above), and embodied by Le Coq Rouge, which appeared in 2013.

Industry has also been a strong marker of action over the past 10 years and at the heart of the logic that led to the creation of Bpifrance. TO such an extent in 2017 there another rooster was born, Le Coq Bleu for La French Fab, standard-bearer of a French industrial movement that is starting to bounce back (see Part 1).

(1) Distribution by the company's NAF code activity sector Services: sections K (financial and insurance activities), L (real estate activities), M (specialised activities, scientific and technical activities) and N (administrative and technical services activities). Other sectors: sections A (agriculture, forestry and fishing), O (public administration), P (training), Q (human health and social action), R (arts, shows and recreational activities) and S (other service activities).

In total, Bpifrance's support for industry over the past 10 years has resulted in:

- More than **€50 billion** invested between 2013 and 2021, *through* the entire range. This corresponds to between 10,000 and 15,000 companies supported each year over the period;
- **Sectoral weight in financing, investments, and non-financial support that is greater than its weight in the economy as a whole⁽¹⁾**. Thus, as an illustrative example, the industrial sector in 2021 represented:
 - 17% of **innovation financing** amounts;
 - 19% of **loan amounts from French banks guaranteed** by Bpifrance;
 - 25% of all **short and medium-to-long term financing** (excluding financing of renewables), **financing for intangible assets is particularly concentrated in industry**, with many unsecured loans over the 10 years aimed at modernising the industrial tool (robotisation, digitisation, energy efficiency, etc.);
 - 23% of the total **equity investment flows** made in French companies **by partner funds** and 51% of **equity investments made directly by Bpifrance** (in particular in small growth and transfer capital to SMEs and mid-sized companies);
 - more than 50% of all **newly accelerated companies** in the first half of 2022 (including those in industrial services);
 - **export finance and export insurance** are highly oriented towards structural support for industry;
- **An action that flows to all industrial areas**. As stated at the beginning of the chapter, Bpifrance dedicates a significant proportion of its action on **industrial areas** (38% of beneficiaries of Bpifrance's support beneficiaries in 2021 are located there).

The aim for the coming years is to stimulate reindustrialisation *through* the creation of 100 new industrial sites per year by 2025. This objective was established in 2021 as part of the implementation of the Industrial Start-ups and SMEs Plan, endowed with €2.3 billion under France 2030, a plan aimed at mobilising both La French Tech (industrialisation of innovations by start-ups) and La French Fab (industrial SMEs and mid-sized companies with industrial projects or solutions for industrial start-ups). The entire range of support is placed in this context at the service of the industrialisation process: innovation grants, loans and equity for the financing of demonstrators, first factories, and the implementation of dedicated support services⁽²⁾, etc. These actions are added to other ongoing plans that are also able to finance and support reindustrialisation (the Deeptech plan, aid for sector innovation as part of the Investing in the Future Programme (PIA), Parcours Conseil Industrie du Futur (consulting missions on the Future of Industry) with CETIM, etc..).

(1) The manufacturing industry represented 10.4% of the value added in France.
(2) Neo Accelerators - Industrial Pivot and Industrial Start-ups, pre-industrialisation phase consulting module, etc.

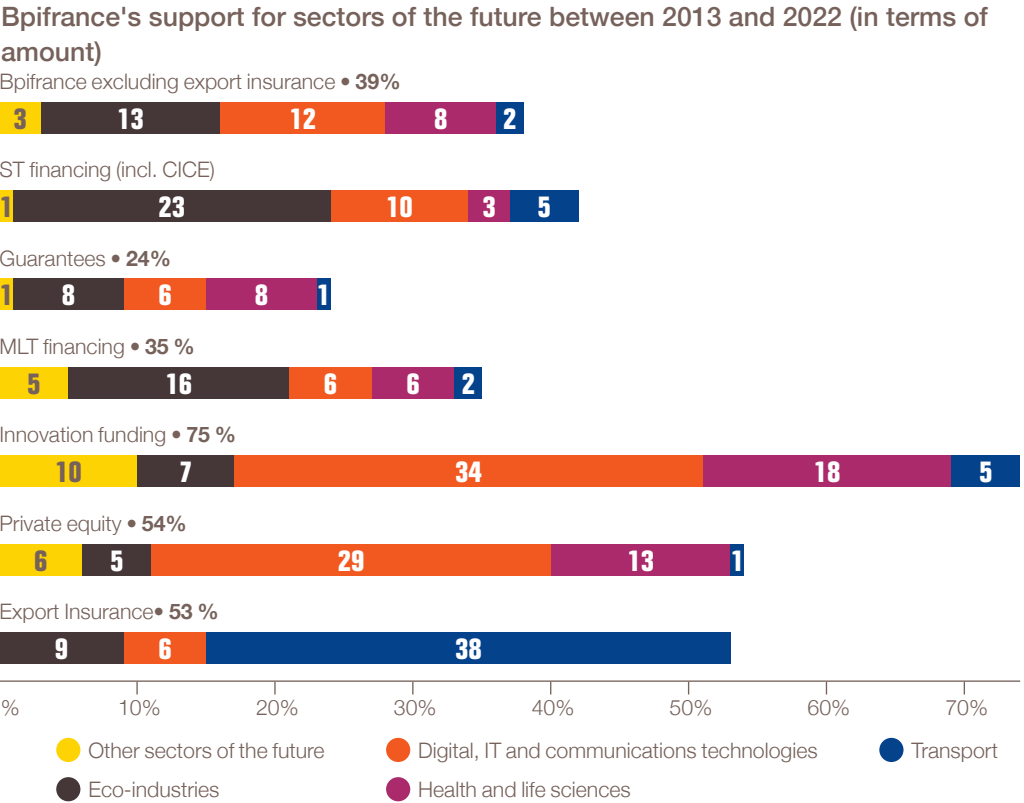
Promoting sectors of the future and sectors of excellence of the French economy

Beyond Le Coq Rouge for La French Tech and Le Coq Bleu for La French Fab, other roosters have appeared over the past 10 years as many standard-bearers of movements that Bpifrance, along with its partners, are trying to encourage.:

- This includes **the green rooster (Le Coq Vert)** representing a movement among **SMEs and mid-sized companies, ready to face the energy and environmental transition** (see next section).
- This also includes **the orange rooster (Le Coq Orange)** for **La French Touch** , which aims to promote French know-how in the **cultural and creative industries internationally**, and launched in 2021. Bpifrance financed the sector with more than €1.4 billion in 2020⁽³⁾.
- The latest addition is **the white rooster (Le Coq Blanc)** **FOR French Care, which aims to bring together SMEs and mid-sized companies in the healthcare sector**. Bpifrance, with €1.3 billion in funding provided in 2019, particularly *through* innovation support (€225 million) and equity (€565 million) aims to intensify these efforts in the coming years.

In general, a substantial proportion of action is focused on sectors of the future,in particular *through* credit, equity and innovation aid (see Chart 19).

CHART 19: DISTRIBUTION OF BPIFRANCE'S ACTIONS IN SECTORS OF THE FUTURE



(3) Source: Bpifrance, French Touch Plan, 2021 and interview with Nicolas Parpex.

Lastly, Bpifrance operates in other important sectors of the French economy, such as tourism. Traditionally very important for support aimed at VSBs (largely *through* creation, transfer, and investment guarantees, see Chart 17), tourism also attracts support for larger and/or innovative companies that can contribute to the development potential and modernisation challenges of the sector (in particular *through* a dedicated investment fund). Tourism has gained a significantly greater share in the number of supports provided following the pandemic and the strong threats weighing on the sector. The weight of tourism in credit financing almost doubled in 2021 compared to the pre-crisis average (8% compared to 4.9%). Dedicated support actions were also implemented to support sector leaders faced with the Covid-19 crisis ("Rebound" consultancy missions, Accelerators, *etc.*). As a result of the emergency plan for tourism set up by Bpifrance alongside Caisse des Dépôts in 2020⁽¹⁾, this also illustrates the countercyclical and long-term partner aspect that characterises the Bpifrance's positioning in the face of the challenges identified. And with the capacity to propose innovative tools.

Transitioning companies, or the ambition to be the Climate Bank for SMEs and mid-sized companies

Bpifrance's actions are also cross-functional, with the aim of giving the productive fabric the means to respond to the major transitions of the economy. This is the case for digital transition, where action to promote the emergence of La French Tech is combined with in-depth action in favour of the digitisation and robotisation of SMEs and mid-sized companies in many sectors through loans, equity and support. **This has increasingly been the case in recent years for energy and environmental transition.**

With the signature of the Paris Agreements, France positioned itself as the leading nation in commitments to decarbonisation. However, the studies conducted by Bpifrance Le Lab at the time showed that few companies among the SMEs and mid-sized companies were taking action and integrating the perspectives related to the transition into their strategy. **In this context, Bpifrance's actions in support of EET have accelerated, becoming a key pillar of the Group's strategy**, with the desire to become the climate bank for VSBs, SMEs and mid-sized companies and drawing on the bank's expertise and know-how that it has previously acquired in this field.

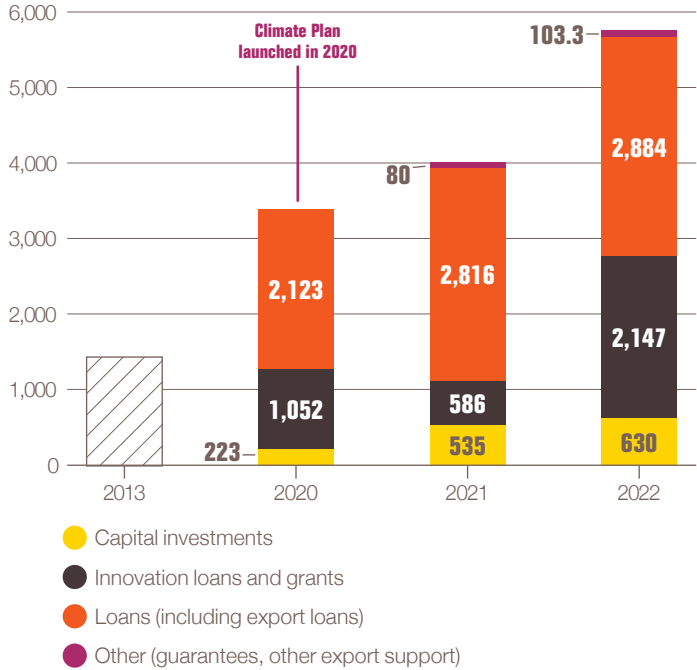
This support for EET is based on products that have been present since the creation of Bpifrance, and that have now gained strength. In particular, Bpifrance (then Oséo) has been supporting the financing of renewable energy production capacities since 2011⁽²⁾. The bank has also been deploying a range of unsecured loans since 2010⁽³⁾, specifically aimed at encouraging business investments in EET and Prêts Verts (Green Loans)⁽⁴⁾.

Overall, between 2013 and 2022, the roll-out of these actions resulted in massive support for the EET, with over €23 billion in loans, innovation grants, and equity investments injected either into companies that need to invest for their own

(1) For a total envelope of 3.6 billion euros by 2023 in financing, investment, and support solutions for industry professionals, see Bpifrance, Caisse des Dépôts (2020).
(2) Projects involving solar energy and wind power, and subsequently, methanisation, hydroelectric or heat grid projects.
(3) Which was then financed by the Investing in the Future Programme (PIA).
(4) These investments aim, for example, to improve the performance of inputs in energy, water, materials, reduce environmental impacts, promote circular economy projects, *etc.*

transition, or in the form of support to develop technological solutions needed for the transition (green innovation, deployment of renewable energy capacities). This corresponds to an average of more than 2,000 companies supported each year.

CHART 20: CHANGE IN SUPPORT FOR THE EET BETWEEN 2013 AND 2022 (IN €M)



The methodology for calculating flows of EET support differs slightly between before and after the launch of the Climate Plan. Despite this, the annual flows recognised between 2020 and 2022 are well above the annual flows reported at the creation of Bpifrance.

In 2020, **Bpifrance launched a Climate Plan with the Banque des Territoires, which aims to accelerate the transition of the productive fabric through three key axes:**

- **Increased support for "solution providers"**, i.e. companies that contribute significantly to the decarbonisation of the economy by their very business model. More specifically, this involves encouraging the emergence of *greentechs*, innovative companies associated with a high potential for growth and decarbonisation that need to be supported through a continuum of measures: innovation grants, unsecured loans, as well as equity support and non-financial support aimed at assisting them from their creation to their scaling up;
- The **financing of renewable energy projects**, strengthened with a view to supporting emerging sectors in addition to traditional technologies (methanisation, offshore wind farms, floating solar power, agrivoltaics, cold networks, etc.) and to better prepare future French champions in this field. This strategy aligns with the objective of defending France's energy sovereignty, the need for which recent events have demonstrated;
- **Finally, it aims to encourage all French VSBs/SMEs and mid-sized companies to decarbonise their production process and align it with the objectives of the Paris Agreements.** This involves the roll-out of awareness-raising programmes, non-financial support programmes⁽¹⁾, debt support⁽²⁾, and equity support programmes. These products are increasingly used in combination to increase the impact of decarbonisation (especially with a diagnostic support solution coupled with a financing solution for the implementation of the action plan⁽³⁾).

This €20 billion plan for Bpifrance over the period 2020-2024, has already been two-thirds deployed by the end of 2022, i.e., €13 billion⁽⁴⁾. It contributed to the massive acceleration of support for the EET, with distributed amounts multiplied nearly fourfold since the creation of Bpifrance (see Chart 20).

The first elements of the analysis aimed at quantifying the impact of these support on SMEs and mid-sized companies over the last 10 years are still partial but instructive:

- An **initial assessment of the DIAG ECO-FLUX** shows that the scheme allows the beneficiary SMEs to generate €45,000 in average potential cost savings per year per company, *by* reducing the company's energy, water, material, and waste flows during its production process (with a potential reduction of 17% in energy consumption, 24% in water consumption and 16% in waste production). The importance of these diagnostic evaluations is regularly cited by the beneficiaries.
- The **Prêt Vert (Green Loan) programme has also been the subject of initial evaluative approaches** that, while relying on still largely qualitative methodological approaches, **suggest that the environmental impacts of the programme are significant** (see Box 13) and call for future evaluations based on climate data and more advanced quantitative methodologies.

(1) This includes the range of Diag'Actions Climat (climate audits), including the Diag Eco-Flux, aimed at achieving sustainable savings by reducing energy, water, waste, and material consumption, the Diag Décarbon 'Action aimed at implementing a decarbonisation plan for the production process, and the Accelerator programme on decarbonisation, launched for the first promotion in 2021. The climate now accounts for a quarter of the accompanying actions.

(2) In *particular*, by strengthening Green Loans, deploying Energy Savings Loans for unsecured loans, financing energy renovation work in loans and real estate finance, and loans to green vehicle fleets.

(3) Such as the Reno'vert scheme, which combines an audit and financing of real estate.

(4) Of these €13 billion, €10.5 billion was deployed in the strict framework of the joint climate plan for Bpifrance and Banque des Territoires, initially launched in 2020 with a budget of €40 billion (half to be deployed by each institution).

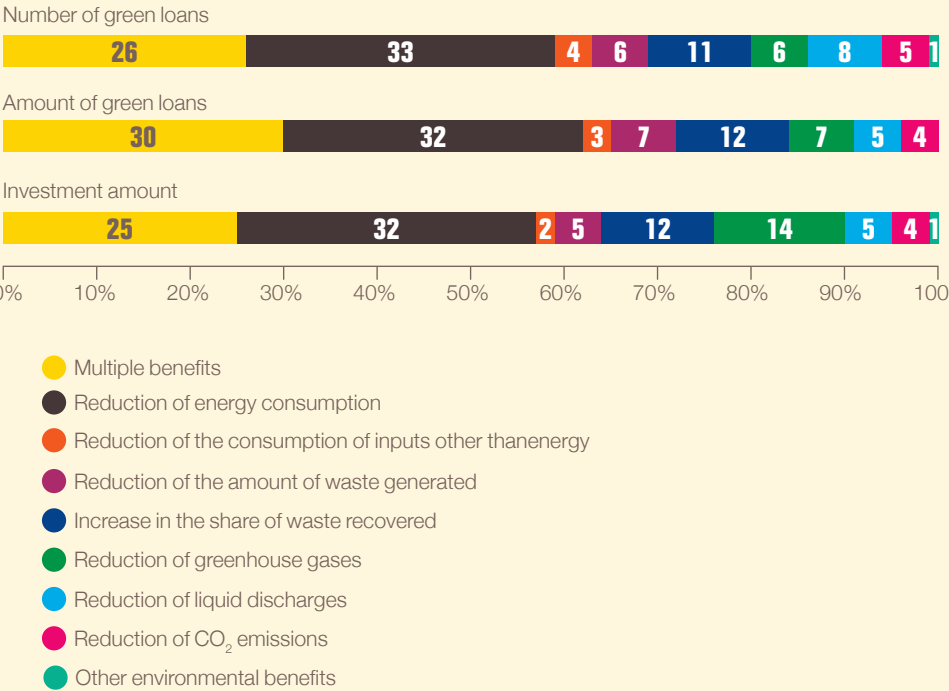
Box 13

The impact of Green Loans

Green loans, unsecured loans to support the investment of SMEs and mid-sized companies in energy-efficient, less carbon-intensive production processes, have been rolled out since 2010 and a first programme financed by the Investing in the Future Programme (PIA).

A joint study between the French Ministry of Environment and Sustainable Development and Bpifrance⁽⁵⁾ **described the companies benefiting from this first wave of loans deployed between 2010 and 2013: twice as intensive in innovation expenditure, more international, and 30% more energy-intensive.** Thanks to the green loan combined with **major co-financing from banking partners**, these companies were involved in transformative investment projects (i.e. for half of the beneficiaries, the investment project exceeded the company's initial working capital).

GREEN LOANS RECIPIENTS BETWEEN 2010 AND 2013: MAPPING OF EXPECTED ENVIRONMENTAL BENEFITS



Source: Bpifrance, MEDDE

(5) *Bpifrance, MEDDE, Première évaluation du dispositif des Prêts verts, 2014* (Bpifrance, MEDDE, first evaluation of the green loans scheme, 2014).

Bpifrance conducted an in-house study focusing on more recent generations of green loans beneficiaries to estimate the CO2 equivalent emissions avoided through green loans. The evaluation focused on a sub-portfolio of 324 loans for a total amount of €412 million disbursed before 31 October 2021. This approach is based on an *ex ante* estimate of the expected reductions in emissions according to the nature of the supported investments (renewal or extension of the production system, energy performance of buildings, renewable energy production, waste treatment, transportation, development of new environmental products or services, etc.) and the reference scenarios used.

This study leads to an estimated 24 kT of CO2 equivalent avoided annually across all projects carried out. However, this estimate does not take into account the savings in inputs achieved through the projects, nor the reduced use of natural resources, such as water, for example. It can therefore be considered as a low estimate of the impact of green loans, made in a first approach.

Interestingly, **the subcategory of projects with the best environmental performance according to this qualitative assessment is also the one that could have the greatest impact on companies' future economic performance** (renewal or extension of production equipment), pointing to the **possibility of an environmental and economic "double dividend"**.

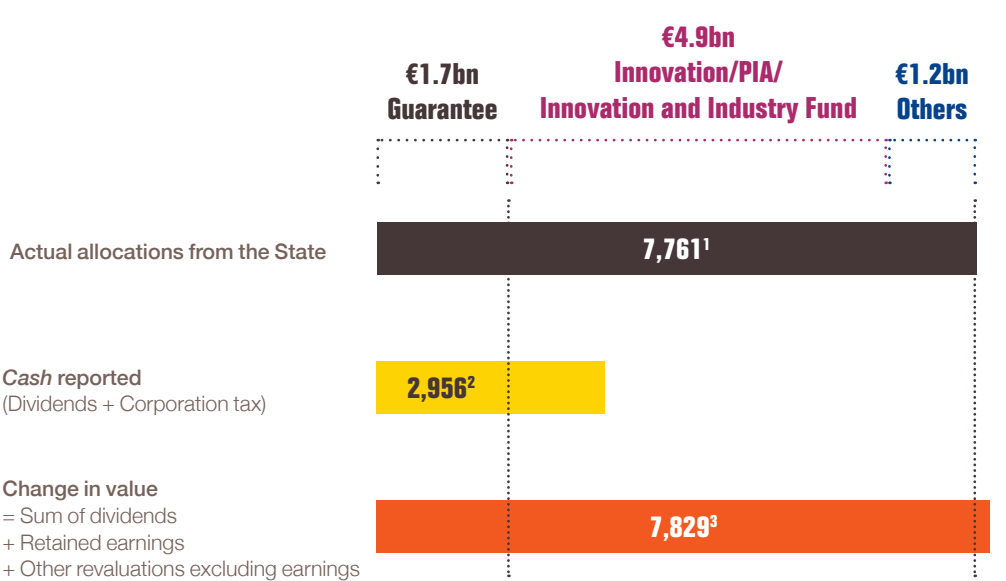
Wise management of public resources, with a positive return on direct investment for the state

A fair assessment of the effectiveness of the actions implemented by Bpifrance requires a comparison of the scale of the impacts previously discussed with the sum of public resources used to produce them. Such an analysis is complicated by the theoretical need to be able to fully assess the effects of the programmes even though they may be difficult to quantify (as is the case with positive externalities resulting from R&D support for the development of knowledge or technologies that will benefit the whole economy and not just their initial producers).

Without a full cost-benefit analysis, we can nevertheless start by putting into perspective **the value generated by Bpifrance for its shareholders with the public resources that have been used as part of the roll-out of its activities. This comparison(illustrated in Chart 21) indicates that from the government's point of view, the assessment 10 years after Bpifrance's creation resulted in a significant generation of net value:**

- The French government has paid €7.8 billion in funding to Bpifrance over the period 2013-2021 (excluding diversion of past resources and excluding investment funds), of which €1.7 billion comes from the budget guarantee programme, and €4.9 billion from the budget programme to support innovation, the Investing in the Future Programme (PIA), and the Innovation and Industry Fund(see Chart 21);
- This amount can be compared alternatively to the sum of Bpifrance's cash returns to the French government over the same period, which totalled €3 billion in dividends and taxes on profit, or the government's share of the change in value of the bank since 2013 (€7.8 billion), corresponding to the change in the value of the "assets" constituted by Bpifrance since its creation.

CHART 21: FOCUS ON THE GOVERNMENT RESOURCES USED BY BPIFRANCE SINCE ITS CREATION, AND OF ITS SHARE IN THE VALUE GENERATED



This vision reflects Bpifrance's direct impact on the French government's budget. This positive return for shareholders is particularly enabled by the parsimonious resource management and excellent operational efficiency in comparison to the practices of the banking sector⁽⁴⁾ Export insurance, which is not on the Bank's balance sheet but managed by Bpifrance Assurance Export teams, generates a direct positive financial return to the French government.

In addition, it is interesting to illustrate the "leveraging" generated by that the instruments implemented by Bpifrance. Leveraging makes it possible to optimise the return on public resources allocated to it by irrigating the economy with a financing amount greater than the initial public funding allocated. They are derived from instrument-specific engineering⁽⁵⁾ and/or knock-on effects that they may have on private financing. These leverage effects can be very significant(see Chart 22).

(1) Excluding private contributors and regions. Actual allocations = allocation requirements - deployment.
(2) Dividends and income tax.
(3) Share of cumulative re-evaluations and changes in value over 2013-2021 (50 % between 2013 and 2021 and 49.3% in 2021)
(4) Bpifrance's operating coefficient is relatively low over the period 2012-2021 and is one of the lowest in the market.
(5) For example, for a repayable advance or a guarantee in which the allocation only needs to cover the amount of loss in the event of a project failure. However, the leverage effect is nil on innovation grants (€1 allocation covering €1 in a grant allocated to a company). While the cascade of public money is not as important, it is sometimes the only way to support certain innovative projects where the horizon of maturation and reimbursement is too far away.

CHART 22: LEVERAGE AND KNOCK-ON EFFECTS
FOR EACH CATEGORY OF FINANCING/INVESTMENT PRODUCT

• BPIFRANCE ENABLES ACCESS TO CREDIT BY GUARANTEEING THE LOANS OF PRIVATE INVESTORS



Reading note: €1 of guarantee endowment allows for a total of €21.30 in loans granted by partner banks. Of the €21.30 in bank loans, €10.60 is covered by Bpifrance's guarantee (€10.70 is not covered, corresponding to the risk level assumed by partner banks).

• BPIFRANCE PAYS THE EXPENSES OF INNOVATIVE PROJECTS OF UNCERTAIN PROFITABILITY



Reading note: €1 of innovation endowment generates €1.30 of Bpifrance aid, as well as €3.20 of additional financing, for a total of €4.50 of innovation financed.

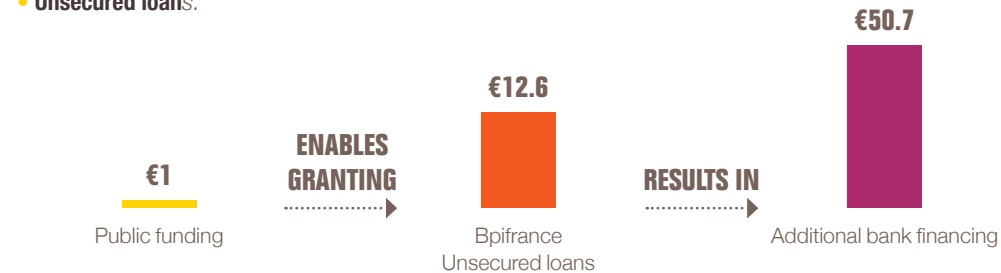
• BPIFRANCE INVESTS IN PARTNER FUNDS TO BOOST PRIVATE EQUITY.



Reading note: €1 of Bpifrance subscription in a partner capital investment fund is accompanied by €5.60 of additional subscriptions in these funds.

• BPIFRANCE CO-FINANCES INVESTMENTS IN INTANGIBLE ASSETS AND LARGE-SCALE PROJECTS.

• Unsecured loans.



Reading note: €1 of unsecured loan (PSG) endowment allows Bpifrance to grant €12.60 of unsecured loan, in addition to €50.70 of complementary bank financing, for a total financing of €63.30.

• Standard MLT loans



Reading note: €1 of Bpifrance financing in traditional (secured) loans results in €3.40 of complementary bank loans.

Leveraging the financing of SMEs and mid-sized companies result in indirect benefits for the government *through* the additional impact that various financing programmes may have on growth and employment, as described throughout this chapter. The increase in growth *a priori* generates benefits for public accounts (tax revenue, balance in the job market and for unemployment insurance⁽¹⁾).

Leveraging national and increasingly international resources, and developing management for third parties, to transform the French productive fabric.

Bpifrance leverages national resources to operate all of its programmes and stimulate French growth. This is true, regarding resources of the French government and the Caisse des Dépôts *through* Bpifrance's equity, dedicated funding (particularly based on a government budget or the budget allocated for the Investing in the Future Programme (PIA)), and also true as for the resources of the regions benefiting from Bpifrance's integrated model as a support for many of their development policies.

Over the past 10 years, Bpifrance has also established itself as the central operator of European financing, making €15 billion available to French companies through dedicated solutions (coaching, loans, guarantees and equity) alongside the European Commission (EC), the European Investment Bank (EIB) Group and the Regions (structural funds). In particular, it is the first public bank to use the 3 main European financing programmes for SMEs in 2014-2020⁽²⁾. These European funds are strategic for the mandate entrusted to Bpifrance by the French government: they help to increase the amount of financing and its ability to take risks in the service of French companies, and thus provide leverage on national resources and priorities (e.g., France 2030). In the coming years, Bpifrance will aim to consolidate this access to European resources from the European Commission, the European Investment Bank (EIB) or others, in particular to develop support for industry and decarbonisation⁽³⁾.

All of these partnerships testify to Bpifrance's acknowledged ability to leverage public resources to carry out high-impact public policy programmes, as illustrated by the detailed evaluations previously discussed. And thus multiply financing and risk-taking in the service of national priorities.

In addition to the management of public funds, Bpifrance has also developed over the past 10 years third-party management for private, national, or foreign investors, in particular by developing an active policy of cooperation with foreign sovereign funds following the integration of CDC International Capital⁽⁴⁾. This cooperation supports equity investment programmes, whether *through* investments directly made by Bpifrance with the capital of SMEs, mid-sized companies and sometimes large French groups, or

(1) An academic study focusing on the impact of Oséo's exceptional guarantee programme deployed by Oséo during the 2008-2009 crisis focused on measuring the impact of this type of scheme on the job market and on the balance of unemployment insurance. It concluded that the scheme would have created/ saved almost 31,000 jobs a year over the 2009-2015 period and enabled the government to generate massive savings for unemployment insurance (of around €1 billion over the period under review).

(2) EFSI (plan Juncker), Horizon 2020 (programme cadre pour la recherche et l'innovation) et les fonds structurels (EFSI (Juncker plan), Horizon 2020 (the Framework Programme for Research and Innovation) and the structural funds).

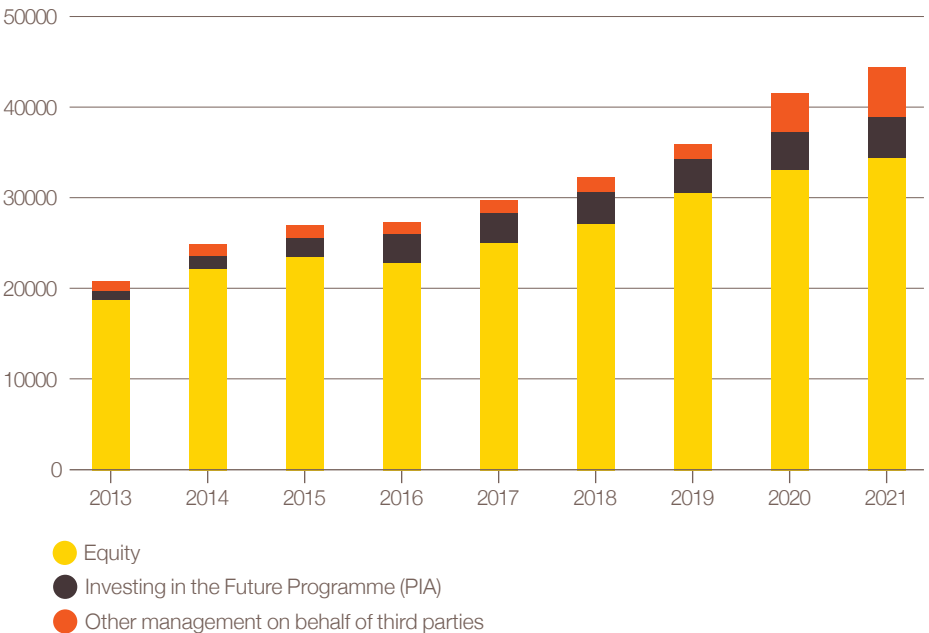
(3) Bpifrance, Ambitions stratégiques 2022-26 (Bpifrance, Strategic Ambitions 2022-26).

(4) Bpifrance's strategy (previously that of IC CDC) notably allowed it to: 1) attract more than €2 billion of investment to France (direct and funds) since 2014, including Lac d'argent, 2) conclude partnership investment programmes for a cumulative amount of over €6 billion, 3) initiate a third-party management strategy with major foreign institutional investors with a target of over €1.3 billion of capital under management by mid 2023.

through the fund of funds to increase the power of action to structure the French private equity ecosystem. Third-party management has increased sharply in the last 10 years, from €2 billion to €13 billion in 2022. These resources now account for a quarter of the assets under management of the private equity activity (compared to 10% in 2013).

Faced with the need, reinforced by recent crises, to consolidate the anchoring of the productive fabric and large strategic companies in France, as well as the emerging needs of the maturation of the ecosystem (IPO Tech), the ambition is to continue to leverage third-party investors in the coming years to serve French capital needs.

CHART 23: ASSETS UNDER FUND MANAGEMENT BY FUND ORIGIN (€BN)



PRELIMINARY CONCLUSION

This chapter has focused on detailed figures for Bpifrance's actions and its impact over the last 10 years. The leitmotif of this action has been to contribute to the development in France of an effective ecosystem for financial and non-financial support for companies, from VSBs to mid-sized companies, to the stabilisation of the shareholding of large groups. By being able to take risks that are difficult for the market to take, and to be a long-term partner, thanks to the public and sometimes private resources entrusted to it. By being able to have a knock-on effect on private financing on these risks. Finally, by being able to adapt its challenges to the economic climate and by relying on a local network and the agility of digital technology to cover needs in all regions.

The consolidation and roll-out of a comprehensive range of tools to assist entrepreneurs in achieving all their ambitions have produced, according to the evaluations mentioned above, significant impacts on companies' economic trajectories in terms of volume of business, employment, R&D development, or exports. These results are a consequence of the contribution of public funds but also of the leverage allowed on private financing. These actions focused in particular on meeting the major sectoral, technological and transformation challenges of the French productive fabric. Beyond the results of the evaluations, feedback from the beneficiaries and partners of the ecosystem also illustrates the impact of the actions taken over the past 10 years. Every year, Bpifrance conducts satisfaction surveys that regularly provide very positive feedback (see Box 14).

Beyond the direct effects on the economy measured by the various evaluations, there is also an impact on the entire ecosystem, which can sometimes be felt. These "second-order" effects are much more difficult to measure but are reflected in a number of testimonials about the past 10 years. Whether it is at the level of the financing market, with a banking offer that has also adapted to the financing needs of intangible assets, or at the level of the investor and support professions. These effects go beyond borders. On the one hand, with initiatives taking place at the European level in cooperation with other public-bank partners. On the other hand, by making the bank's expertise

available to foreign public authorities to help create or develop their own public financing tools⁽¹⁾.

Overall, during these 10 years, there have been a number of successes in the evolution of the French economy, to which Bpifrance has contributed. These include the emergence of La French Tech and the broader development of the ecosystem of equity financing and innovation. There has also been a strong entrepreneurial dynamic in France over the past several years, which has persisted despite recent crises. In addition, there has been growth in the number of exporters and the creation of mid-sized companies, facilitated in part by a combination of funding offers (capital, loans) and support. However, many challenges remain, including:

- a continuing effort to revitalize industry in France;
- a major challenge, that is to decarbonise companies and, more generally, adapt businesses to environmental challenges;
- an ongoing challenge to increase the number of mid-sized companies and exporters, particularly in the light of France's still very large trade deficit;
- and finding an appropriate response to the challenges posed in the short term by a new and difficult cyclical phase.

An additional challenge is evaluation, since, besides the studies carried out in the last few years and which have been used in this report, many studies still need to be conducted to measure the results of these interventions, in order to understand and implement the best public policies to address these issues.

This review of the past 10 years also draws on the testimonies of those involved in this story, whether members of staff or entrepreneurs. They are described below in the report with.

Box 14

Bpifrance's actions seen by entrepreneurs and partners and a summary of satisfaction surveys

The success of Bpifrance can be measured by the satisfaction of entrepreneurs, which has been surveyed year after year by an independent polling institute. Satisfaction and recommendation levels are exceptional and unparalleled in the banking sector. The Net Promoter Score (NPS) has ranged between +27 and +48 points since 2014 (on a scale ranging from -100 to +100). By contrast, since the 2008 financial crisis, banks have had negative NPS scores and only timidly returned to positive territory in 2019, averaging around +11 points in 2021. **In that same year, Bpifrance's NPS was +42 points, reaching a historical high of +52 points in 2022.**

This survey also reflects the events that have marked Bpifrance's history during this period. From 2014 to 2017, satisfaction increased significantly. The context is that of a French economy and investment in rebound, overall financing conditions that were initially difficult but that are getting back to normal, and strong activism from Bpifrance, deploying an increasingly wide range of offers to support this rebound (see Part 1). The years 2018-2019 reveal a slight decline in a context where the weight of action in the market is more moderate (see Part 1), access conditions to financing are generally good, and interest rates in the market are low.

Undeniably, 2020 and the pandemic marked a turning point in terms of both satisfaction and activity, with both reaching a historic high point. The 2020 edition testifies to customers' appreciation of the unprecedented mobilisation to help them through the pandemic. 80% of them believed that Bpifrance played its part well during the crisis, and the majority confirmed that the crisis had strengthened their relationship with the bank. Business owners also highlighted the quality of their relationships with Bpifrance's contacts, describing them as responsive, available, attentive and professional. In particular, they appreciated the responsiveness and efficiency, financial support and emergency measures deployed, human support and moral support during this difficult period, as well as Bpifrance's knock-on effect with partner banks.

Results again reached an excellent level in 2021 and 2022, with a satisfaction score of 7.8/10 and 8/10 respectively, as well as a recommendation score of +42 and +52 points respectively among companies. As in previous years, these results were exceptional among banks financing companies. The results of this survey also make it possible to assess the impact of Bpifrance's economic recovery actions: two-thirds of entrepreneurs believe that Bpifrance has stimulated their desire to do business and motivated them to contribute to the economic recovery. Almost three-quarters of them confirm that Bpifrance has

(1) With an increasingly systemic approach in support of public institution reforms in a country focused on SMEs/ start-ups, with a stated objective of governments to federate entities in order to generate real leverage on the country's economy, while also involving the private sector. Over the past 10 years, Bpifrance has conducted various interventions, including in Tunisia, Morocco, Côte d'Ivoire, Senegal, Togo, Greece, and Saudi Arabia.

effectively supported and advised them to approach the recovery under good conditions.

The satisfaction survey is also an opportunity to question the banking partners whose networks work closely to finance entrepreneurs' projects. The satisfaction line follows the overall situation contracyclically. It was higher at the beginning of the period when banks were still marked by the financial crisis and conditions for access to finance for companies had not yet managed to normalise. It gradually diminished year after year until reaching a low point in 2019 in a context of continuous decline in interest rates, thus putting pressure on the margins of banking actors. Consequently, they might have seen Bpifrance as a potential competitor (even at the time when its weight in the market was decreasing, see above). Here too, 2020 marked a turning point in the relationship, with a return to significant levels of satisfaction. The pandemic, and above all the emergency actions Bpifrance took to support the economy, made it possible to restore visibility to the group's action and its positioning as a local bank. Additional actions were also put in place internally to reinvigorate partnerships and meet banks' expectations, such as modernising the guarantee activity, for example.

EPILOGUE

At times, the absence of change should be newsworthy. The tenth anniversary of Bpifrance, the Banque Publique d'Investissement, is indeed an event, as it underlines the continuity in the history of support for innovation financing and entrepreneurial dynamism in France, which has been marked by significant instability. Bpifrance and its endurance are the result of gradual institutional learning in France, which must first be outlined before discussing the current state of the productive fabric. Since the 2000s, support for innovation financing has been based on various tax and institutional schemes. This diversity is the result of the oscillation between two different considerations. The first relates to the state of the productive fabric in France and its difficulties in evolving. This comes as a way of justifying public intervention, which economists call "market failures". This concept is used here in an abstract sense because it often has little operational value. Symmetrically, the second consideration is based on the effectiveness of public intervention, what the state can do effectively without wasting public money. This second aspect therefore relates to the "failure of public intervention". Bpifrance is an example of an institution that has managed to strike a balance between these two difficulties.

A chronicle of business financing support

The creation of Bpifrance in late 2012 therefore seems to be the result of French having learnt their lesson, driven by policy-makers, administration, and economists, following various trials and errors. First and foremost, a crucial moment was the creation of the Research Tax Credit (CIR) in 1983, which remains a massive fiscal mechanism in France, which is now worth over €6 billion. Three different reasons justified the existence of this tax credit. The first was that the return on research and development for society outweighs the return for the companies that fund it. This is because some research benefits other companies due to labour mobility or the general and non-appropriable nature of certain discoveries. The second reason was that the government could not establish instruments

or institutions that were more efficient than a general tax credit, without directly financing them. More generally, the limits of previous schemes, including those implemented by ANVAR, were emphasised in support of a different, highly horizontal approach. The 2000s, when the CIR gained ground, was also a time when any industrial policy was criticised as being an interventionist residue from another time. The third reason for a tax credit system related to the financing difficulties specific to SMEs, VSBs and young innovative companies. A tax credit could provide innovative small business projects with a solvency margin. The CIR has been evaluated on many occasions and has evolved without a consensus on its precise effectiveness. Then, in the same period in the early 2000s, other innovation support schemes developed. They identified the lack of cooperation between innovation players as the main problem. These players are those from public and private research, small and large companies in particular. This lack of coordination justified local cooperation under the term "competitiveness clusters", launched in 2004, the aim of which is to stimulate innovation in the regions through greater interaction between local actors.

At the same time, practical thought was given to the possibility of a renewed industrial policy, taking stock of past successes and failures, in particular the Plan Calcul and the Plan Informatique pour tous (Computing for All plan) whose failures marked a generation of observers. This renewal of industrial policy was marked by a return to public funding for projects, based, however, on new cooperation between the public and the private sector. Public funding for innovation and investment projects is faced with two difficulties. The first is not to finance good projects, the second is to finance bad projects. Even more importantly, project monitoring is also subject to two other dilemmas. The first is to stop financing good projects too early. The second is to stop funding bad projects too late. Support for public investment is largely marked by the latter problem. The government has no obvious mechanism for accepting failure. It is always easier to continue a project by changing its financing to hide the social profitability deficit. The focus shifts from supporting innovation to supporting development, then to industrial transformation, then to regional planning, and finally to social support. While private investors face the same difficulties, it is worth recognising that their comparative advantage lies in not funding projects considered unprofitable. From these practical analyses, quickly summarised, emerged a proposal for a project co-financing model that relied on a dedicated public institution with independent governance and the participation of private actors in the financing. Co-financing allows for the best of both forms of financing, leveraging public investment and explicit decision-making processes of non-public actors. Thus, the debatable performance of the CIR and the refocussing of a more targeted action by the public authorities on SMEs and mid-sized companies led to an inflexion, even a paradigm shift, in industrial policy.

A third element explaining the success of Bpifrance's creation is the rediscovery of macro-financial constraints after the so-called *subprime* mortgage crisis of 2008 and the European sovereign debt crisis, in the form of credit rationing that hindered innovation projects. The return of macroeconomic instability justifies the introduction of a system for financing companies independently of major cyclical fluctuations in the credit market, as well as from regulatory changes limiting risk-taking in the financial sector. These macro-financial considerations are reflected in two "market failures": a sometimes excessive risk aversion of private actors, particularly in the financing of innovation and small businesses, and a time horizon that is too short due to profitability constraints. These two biases lead to the aforementioned risk of not financing good projects, which justifies a long-term public investor, less risk-averse and more patient (and therefore less short-sighted).

Finally, one last element seems important to understanding the creation and endurance of Bpifrance, which is a systemic approach to financing innovation in France, and based less on the microeconomic approach to market failures. In 2012, the French landscape was one of a profusion of mechanisms supporting investment and innovation in companies, only a part of which has been mentioned above. The situation resembled an English garden where it was thought that the diversity of financing methods would make it possible to respond to the diversity of companies' situations and entrepreneurial dynamics. This profusion created confusion in the objectives and responsibilities on the part of the government, and a daunting complexity for companies, particularly the smallest ones that were, however, at the heart of this policy. An approach in terms of the institutional complementarities between the various actors involved leads, naturally, to the need for a concentration of functions within identified institutions, simplifying both the approach of companies and the coordination between public players.

Naturally, all these developments led to the creation of a public institution at the end of 2012, born from the merger of Oséo, CDC Entreprises, and the FSI, with independent governance, financing innovation and business development, acting both as a patient investor, supporting risk-taking, and at the same time as an informed investor, whose operating method was a co-financing strategy and a systematic evaluation policy. The debate on the rationalisation of mechanisms took place during the 2012 campaign with François Hollande's plans for a public investment bank.

The evolution of Bpifrance is presented in this book and has been evaluated in various reports. The work of the Cour des Comptes (an administrative court and France's supreme audit institution) in 2016 and 2021, the report by Laurent Grandguillaume, the 2016 CAE report by Marie Ekeland, Augustin Landier and Jean Tirole point out a variety of desirable changes. In broad terms, the main risks identified as the flip side of the success of an institution's that has found a significant place in funding innovation can be summarised as follows. For example, Marie Ekeland, Augustin Landier and Jean Tirole point out that Bpifrance's success relies to a large extent on the quality of the teams in place, whose longevity must be ensured institutionally. They also highlight the need to participate in the creation of an ecosystem of private funders in order to reduce crowding-out effects. In addition to these recommendations, there is a continuous need for evaluating Bpifrance's actions. It is always delicate for an institution to submit itself to external evaluations that may expose weaknesses. It should therefore be acknowledged that Bpifrance's initiative in conducting external evaluations is important and commendable. Bpifrance's data are made available to researchers (through the CASD system) for rigorous evaluations. These evaluations help shape the structure of Bpifrance's budgets to ensure greater effectiveness in a constantly changing environment.

A persistent problem with the economy's export performance

The preceding chronicle may have given a highly favourable impression of business financing support in France, because it was intended to highlight the institutional process in France. However, if we shift our focus and consider the state of the French productive fabric, the assessment is far more nuanced. Admittedly, financing innovation and investment in France is no longer a major problem: the shift in the public debate from financing start-ups to financing unicorns is proof that we are no longer talking about problems solved.

However, the problem facing the French productive fabric is not just a matter of innovation financing but a broader difficulty.

To the macroeconomic picture presented in the first section of this book, the evolution of France's trade balance needs to be added. Since reaching a peak in 1995, it has been in a continuous decline. France now has one of the most deteriorated trade balances and current account balances among euro area countries. This worrying situation is the result of a negative trend in exporting goods, regardless of energy imports, which have significantly worsened the trade balance, particularly since the start of the war in Ukraine. It should be remembered that the current account balances of France and Germany were similar in the early 2000s. In 2022, Germany's current account surplus was about 4% of its GDP, while France's current account deficit was -2% of GDP. Energy costs of course have a strong negative impact on these results. However, in the case of France, the downward trend also comes from the balance in goods excluding energy, which has been in a continuous decline. This reality is the counterpart to France's deindustrialisation. Industry accounts for 80% of French net exports. It is true that France's deindustrialisation has stopped and we are now witnessing a small growth in industrial employment. When comparing France and Germany, on an aggregated basis, it can be observed that the difference between the two countries is not due to a deterioration in labour productivity in France, which remains comparable to that of Germany. The measurement of a country's overall technological progress, its total factor productivity, does not show a significant erosion since 2000, except perhaps in the last few quarters, which still need to be analysed once the period of Covid-19 and the energy crisis have passed. The analysis therefore appears to indicate a mismatch in the internal exchange rates within the euro area, meaning general price levels are not compatible with production structures - in other words, a relative under-evaluation of the countries in the euro area that export the most.

This industrial picture is less positive than one that would be painted by describing only the financing difficulties faced by companies, which Bpifrance addresses. Restoring France's export capacity in a world now constrained by energy transition, requires a comprehensive and long-term policy, tackling all aspects of competitiveness, including price, cost and non-cost factors, training and scientific training in particular, energy security, *and more*. Discussing all these subjects in detail would of course take too long, and mentioning them aims only to demonstrate that a single institution cannot address them all. However, two elements do seem to require deeper consideration now. The first is the use of public procurement, both in general and particularly in the military sector, to stimulate industrial innovation; it is still a powerful if underused lever. Competition for access to medium-term public procurement contracts, particularly those directed at innovative companies, is an important means of industrial development, as international comparisons show. The second element is the implementation of an industrial policy that mobilises large companies. The budgetary cost of such a policy should be low because large companies face few financing difficulties. It can involve a policy of co-development of technologies that have greater social interest than private interest. This modern industrial policy, in Philippe Aghion's words, must involve competition among projects and strong public institutions capable of engaging in dialogue with industrial companies that have their own international objectives.

Evaluating Bpifrance's success

After examining the history of the tools used to support business financing and the export capacities of the French productive fabric, we can now focus on measuring the success of Bpifrance. Three perspectives are possible: microeconomic, macroeconomic, and general.

The microeconomic perspective concerns the evaluation of Bpifrance's systems using strict statistical and econometric methods (see Box 1 in the book). As mentioned earlier, the availability of Bpifrance's data for rigorous evaluations helps understand the impact of these measures. The evaluation of credit guarantees for SMEs can serve as an example in this respect. These evaluations are necessary for the justification of the use of public funds (avoiding windfall effects) and to demonstrate the absence of harmful distortions for certain companies (selection bias, crowding-out effect). They also enable the amounts granted to the scheme to be managed.

However, these evaluations provide only a partial picture of Bpifrance's overall effectiveness. The previous remarks on France's export problem and the fact that Bpifrance alone cannot solve it serve as an important reminder not to burden only the public investment bank with finding the solution to all the difficulties that French companies face. The scope of evaluation should focus on the question of financing companies, particularly SMEs, mid-sized companies, and innovative companies at various stages of their growth, ensuring stability over time, while recognising that this is only part of the production problem in France. While the indicators mentioned in Section 2 of the Book demonstrate the effective support from Bpifrance for companies, the overall evaluation of Bpifrance's contribution to financing the productive fabric in France is more difficult because what is counterfactual (that is, a French economy without Bpifrance, or with a different public investment bank) is difficult to identify. As highlighted in the Grandguillaume report, Bpifrance is required to support "national industrial policy and contribute to the implementation of ecological and energy transition." Additionally, it serves other objectives, such as promoting female entrepreneurship. How can the satisfaction of all these objectives be measured?

The question can be phrased differently. How cost-effective does Bpifrance need to be to allow it to fulfill all the objectives (regarding financing the economy and small businesses, stimulating innovation, reindustrialising the country, increasing its competitiveness, energy transition and corporate social responsibility)? Two opposing approaches come into play. The first is that Bpifrance stimulates corporate financing, thereby helping to resolve dysfunctions in the credit market (as a knowledgeable and patient investor with lower aversion to risk). This activity enables it to generate long-term returns equal to or higher than those of the market. The second approach is that Bpifrance's social return on investment, by enabling innovation and accelerating energy transition, is more important than any private return on investment alone. As a result, it is legitimate for Bpifrance to have a lower return than that of the market, as it contributes to broader objectives. Bpifrance's desired profitability is therefore a difficult matter.

The answer to this challenge is the assertion of a target average return of 2% to 3% on assets by Bpifrance's management. This target has been achieved each year, except in 2020, year of the Covid-19 crisis, with a catch-up effect in 2021. This objective seems realistic. It avoids the need to rely on the state budget for funding its activities. In addition, the pursuit of an average return provides Bpifrance with a certain degree of freedom in achieving overall objectives. The consideration for this freedom is, of course, a rigorous

evaluation of programmes and costs such as operating costs, as mentioned earlier. In fact, Bpifrance's governance resembles that of central banks, which have a general mandate and operational independence that allows for quick resource allocation decisions across different instruments and even experimentation with the introduction of new tools. The Bpifrance Board of Directors, where the government is represented, serves *ex-ante* as overseer of strategic choices and *ex-post* as a committee evaluating the scientific value of external review.

In conclusion, the ten years of Bpifrance mark the success of a public institution for financing the economy, especially SMEs and innovative companies. Ongoing and demanding evaluation of Bpifrance is the condition for its success. This success now allows us to shift our attention to other causes of the weakness of the productive fabric in France.

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