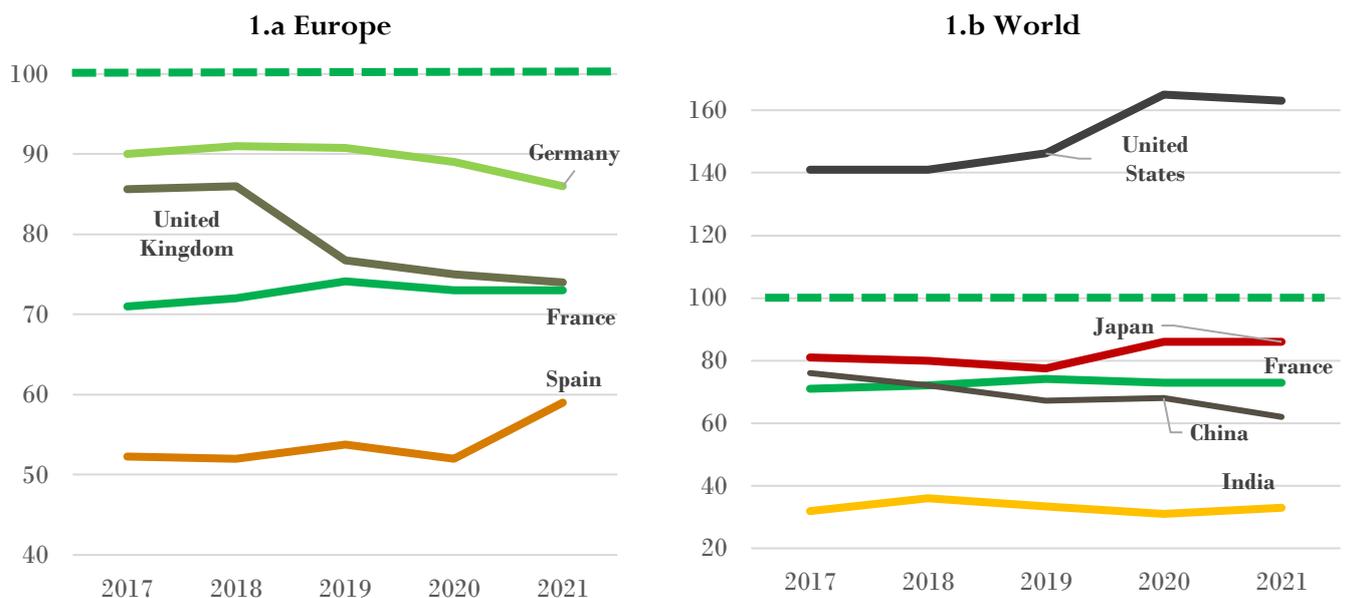


The stability of R&D tax credit is the main reason behind the competitiveness of French RDI ecosystems

As international tax competition increases¹ and the contest to acquire cutting-edge knowledge and skills gets more intense (cf. the US research rate), for the third year in a row France has opted to reduce the effectiveness of CIR (R&D tax credit). A period of uncertainty begins that could have dramatic consequences for research-development-innovation (RDI) ecosystems.

Graph 1 – Over the last 5 years, France has become less competitive in Europe, while internationally, the country’s relative position no longer stands out.



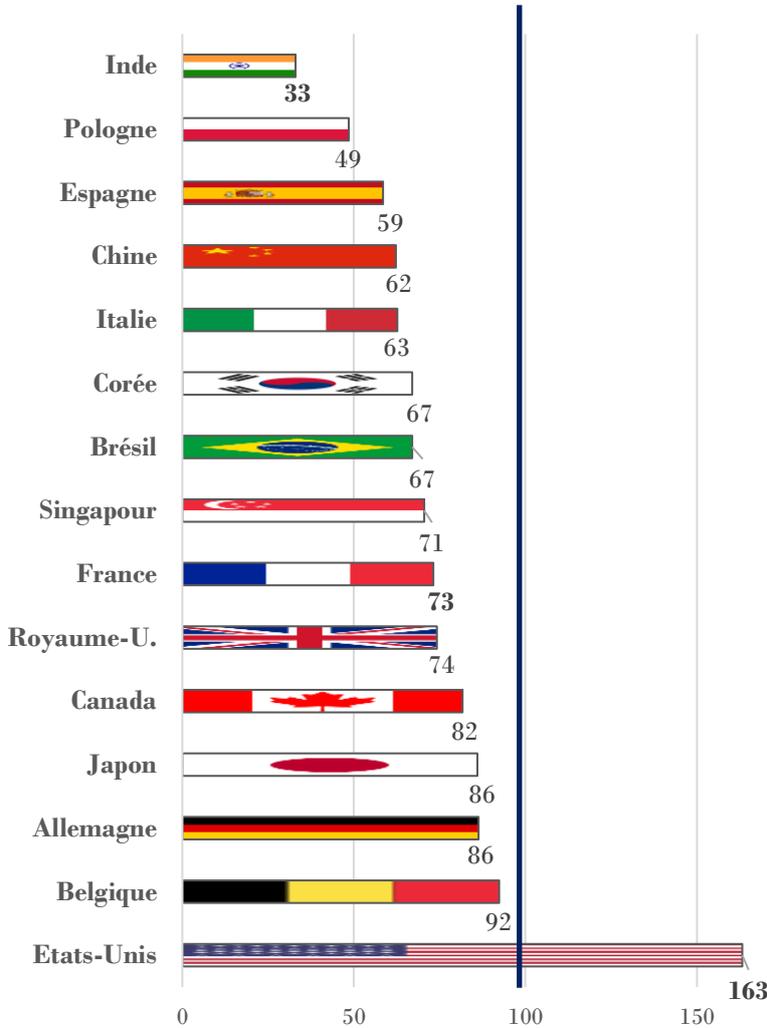
These graphs present a comparison of the evolution of researcher rates, established using data collected from the ANRT Panel over the last five years. The values on the y-axis correspond to the cost of researchers in the form of an index. The dotted line (— — —) shows the French researcher rate with no CIR (or subsidies).

Graphs 1.a and 1.b illustrate how the impact of CIR on the relative researcher rate has evolved. The green dotted line at 100 on the y-axis shows that in Europe, without CIR, the French researcher rate would be from 10 to 14 percentage points higher than the German rate. Compared to Spain, although the gap has narrowed to the latter’s disadvantage, it would range from between 48 to 41 percentage points. Spanish sites represent a growing threat in a number of research and technological development sectors given the RDI framework conditions.

¹ “New Forms of Tax Competition in the European Union: An Empirical Investigation”, EU Tax Observatory, 22 November 2021.

Graph 2 below shows the 2021 situation of the researcher rate based on the average cost in 2020. This comparison of indexes, which includes the impacts of support systems to promote industrial R&D located in the different countries, reflects the different approaches implemented by decision-makers. The countries at the two extremes of our sample since 2010, the United States and India, are separated by 130 percentage points; in Europe, 43 percentage points separate Poland and Belgium.

Graph 2. – 2021 researcher rate (CIR 2020)



[100 = Cost in France with no CIR or subsidies]

The French researcher rate remains at 73, an average position in our sample.

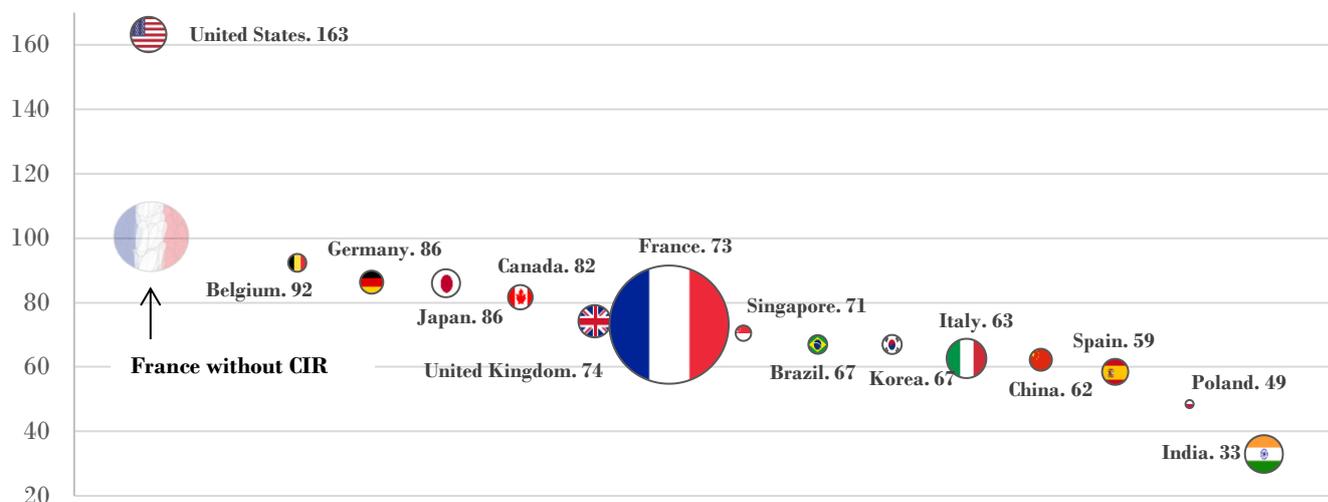
As the geographic proximity increases, differences between rates tend to have a much greater influence on decisions to readjust R&D teams. French researchers still have a positive advantage compared to Germany (13 points) and Belgium (19 points), although narrower in both cases.

US rates appear to have stabilized at 163. They are 2.23 times higher than French rates. Maintaining research teams on American soil is a luxury that few multinationals can afford. Intense, growing pressure in the digital sector and inefficient public support measures for R&D act to reinforce this phenomenon, which has been observed for over a decade.

Despite reductions in 2019, 2020 and 2021/2022, French R&D tax credit sustains the competitiveness of national industrial research. Its relative advantage is nevertheless shrinking as most other advanced economies, over time, set up similar measures. Fifteen out of the leading 20 countries in terms of public support for R&D mainly bolster their industrial research ecosystem through tax support². The remarkable result of this significant effort is visible in the continued internationalization of national R&D through multidomestic companies of French origin; the latter, at the same time, supported the growth of their local R&D teams. For the companies on the Panel, this proportion has tended to increase (c.f. previous years). In 2021 once again, the size of the French flag in graph 3 (below) represents a little more than 53% of the total.

² According to “OECD Science, Technology and Innovation Outlook 2021”, 2018 statistics.

Graph 3. – Researchers from companies on the ANRT Panel work mainly in France, once again proving the effectiveness of French R&D tax credit to date



Key: The size of each flag is proportional to R&D staff in the panel companies. The position on the y-axis shows the cost of researchers in the form of an index: the 100 mark is the cost of a French researcher with no tax credit or subsidies.

Europe, followed by Asia, then the Americas reflects the stable ranking in terms of numbers of research staff at companies on our Panel.

Caution: attractiveness is fragile

The attractiveness of a country is fragile when it comes to the cutting-edge research skills indispensable for companies to cope with the changes brought about by shifting socioeconomic requirements. The ANRT Panel has always pointed out the considerable impact of differences in researcher rates on the size of R&D teams, in particular in geographically close countries. An example is research on environmental technologies, which has seen departures from France to Spanish regions that offer relatively more favourable conditions, especially financial ones.

When it comes to qualified jobs, researchers are particularly mobile. The market for ‘star’ and ‘high-potential’ researchers has no borders. Recent examples of brain drains are common, often involving entire teams, especially in the digital sector. More generally, increased competition means that early career conditions for researchers in knowledge-intensive companies are crucial. French R&D tax credit, including the Young Doctor programme, is therefore a key asset to maintain the attractiveness of France in terms of R&D.

The “end of doubling”³ comes into effect on 1 January 2022. As we write these lines, it is not clear whether the compensatory measure that was the object of a government amendment in the 2022 Finance Bill, called tax credit for collaborative research (CICo), will be enough to avoid the predicted collapse of partner relations. Apart from the restrictive definition of R&D expenditure concerned, the measure has three other major pitfalls. This tax credit is separate from CIR and any connection between the two remains uncertain. The ceiling that the measure applies to is arbitrarily low (6 million euros), which means it penalizes the most virtuous companies that maintain a high number of research collaborations. The expenditure likely to be affected can only concern new collaborative research, starting in 2022. This date of effect alone will exclude a large number of projects already underway involving collaborations spread over several years.

³ By which companies can double the figure they declare for expenditure corresponding to R&D entrusted to their public partners.

*
* *

Thirteen international groups, members of ANRT (National Association for Research and Technology) that carry out part of their research in France, this year accepted once again to calculate and communicate to ANRT the comparative cost price of their researchers (including direct aid and tax credit) in the countries where they invest in research.

These groups invest over 14 billion euros in research & development h in the world; this year more than 68,000 researchers were included in this comparison, with a wide variety of areas of application.

They have R&D teams in over 30 countries and yet on average over half of their employees are based in France! And the reason is not just habit or patriotism. The simple explanation comes down to one word: competitiveness (cost and non-cost).



Reliable, comprehensive barometer

International groups have every reason to view France as a favourable host country for their research investments. The quality of research and the proximity of large markets, along with favourable researcher prices and research costs for domestic propositions of comparable quality, carry the decision in favour of one or other of the research sites and in particular the company's development.

Researchers

This study only concerns company researchers. These are employees whose task is research & development and who have contributed to at least one research project during the considered period.

Methodological approach with an emphasis on domestic consistency

Taking as a reference the average price of a researcher in France before any subsidy and research tax credit (base 100), ANRT aggregated the compatible data specific to each group to produce the researcher rate by country.

For a given country, the average cost of a researcher is only included if two conditions are fulfilled:

- The ANRT panel has at least two averages of charge-inclusive costs from two different companies
- The research centres considered employ more than 20 people

The different accounting entries were pooled in order to standardize the information, while considering differences between the groups' accounting systems. The information is thus homogeneous at group level, making international gaps highly representative.

Virtuous tax measures

An adequate tax incentive policy involves creating conditions in a country whereby the public resources mobilized produce the desired effect, no more and no less. In the absence of sound information from the field, the legislator cannot know the impact of policies in place elsewhere in the world and attempts to strike the right balance. Studies carried out on research tax credit, in particular by the OECD, quantify theoretical impacts at a macro-economic level. Despite their intrinsic qualities, these studies do not have the capacity to describe the actual cumulated effect on company accounts of all public policies, direct aid and tax incentives.

Accounting is the only real barometer of major companies, taking all advantages and charges into account. Multinational groups' accounting and tax systems are obliged to be robust and consistent; financial control and business intelligence can be used to extrapolate decision-making data. Information is therefore highly sensitive: it reflects the strategy of both companies and governments through subsidy regimes specific to sectors, locations, or intellectual property registration in a country.

No upper limit means no windfall effect

An upper limit defines the optimum expected by public authorities. A cap indicates the maximum research investment that the country expects. As a result, it is more favourable to those that make a small share of their research investment in France; it is less favourable to those that make French sites their main global research hubs.