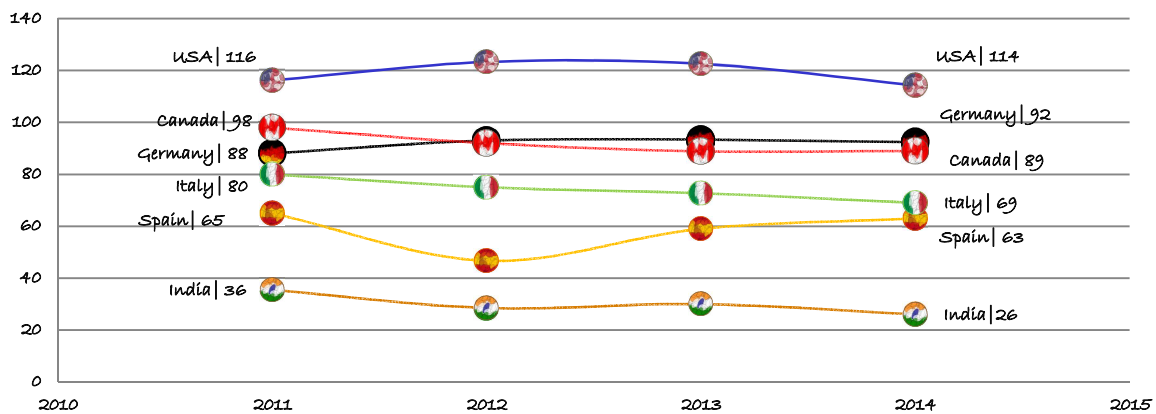


In a global tendency towards stabilizing research costs, Research Tax Credit's benefits are eroding

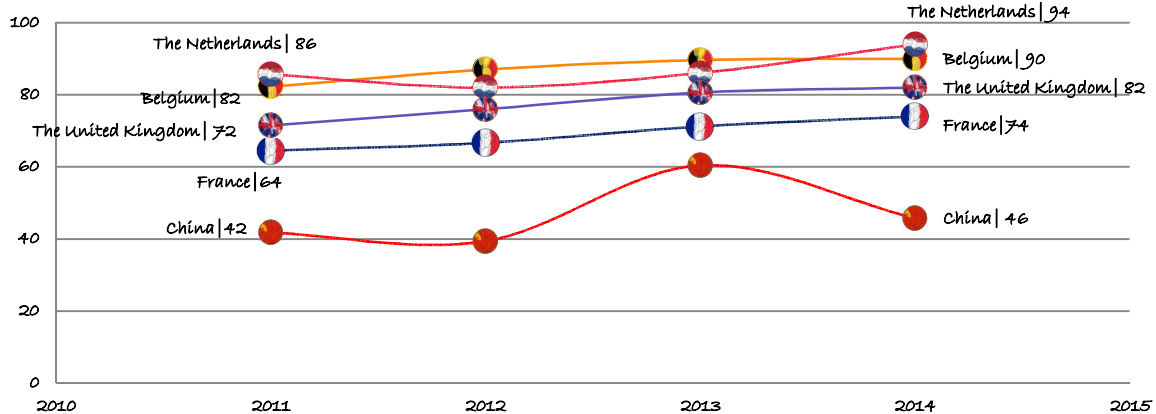
This fourth issue puts into perspective results obtained over the past 4 years. The global tendency of researchers' relative costs leans towards stability. France, the United Kingdom, the Netherlands, and countries which are catching up, are becoming slightly more expensive. The Research Tax Credit guarantees attractiveness for French ecosystems while correcting, for the time being, charges which are amongst the highest in the world.

Global restructuring of research activities continues

Countries with stable or declining costs



Countries with increasing costs



In this study, the researcher's cost takes the form of an index. The 100 mark stands for the French researcher's cost, unaided. The displayed rates are countries' average accounting for R&D aids (i.e. RTC and direct government R&D funding).

Europe diversifies its positions, intra-European equilibria change

The equilibria amongst European countries are changing; they foreshadow the 21st century's European knowledge economy. While Germany, Belgium and Canada seem to have stabilized their costs for research staff, France, the Netherlands and the United Kingdom have become more expensive. In France, the rise in costs can

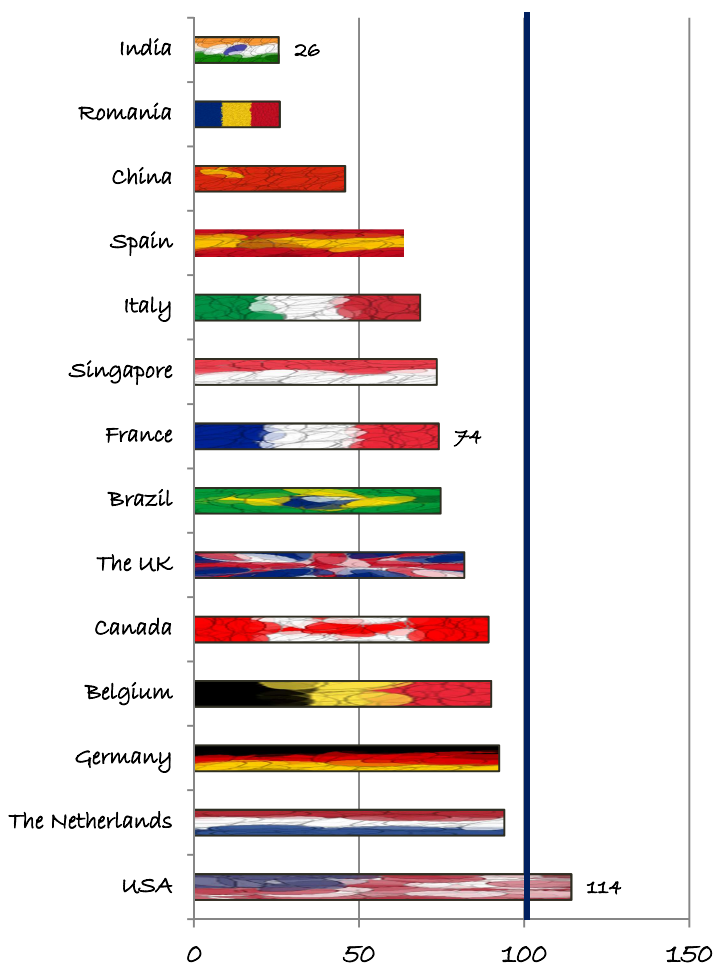
mainly be explained by the reduced 50% rate that applies to operating expenses and by the decline in direct government R&D funding. In the UK, a more favorable R&D tax relief should produce results from 2015. There is a reverse trend in Italy, which in spite of the progressive decrease of the tax credit for business investment in research and development (“*Credito di imposta per gli investimenti in ricerca e sviluppo*”) is doing well, while simultaneously being very active in European RDI support programmes. Spain, by using aggressive regional strategies, is also achieving lower costs.

In developing countries, year after year, China is progressively becoming more expensive.

Finally, India’s research seems more inclined towards development on specifications than innovative solutions. As we’ll see, a European alternative is emerging with Romania.

Image (1) : 2014 researchers’ rates

Average researcher cost after incentives



French researchers’ rates continue to increase slightly.

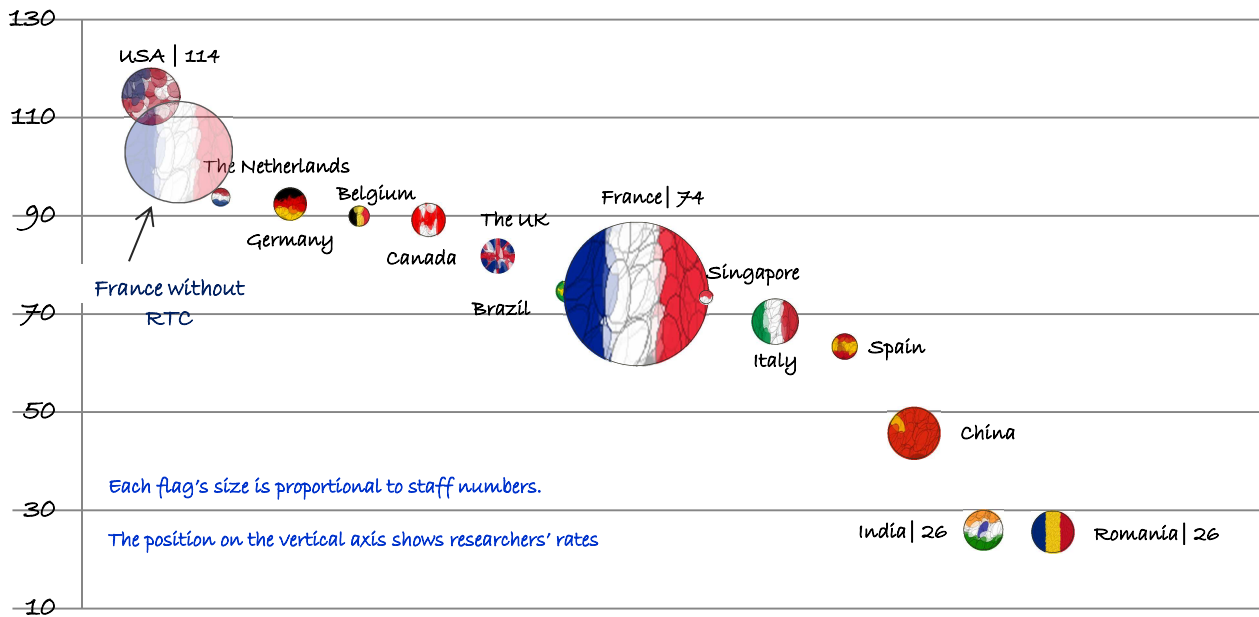
The United States and Germany, unsurprisingly, remain expensive countries, but the gap with other countries is stabilizing and even reducing with countries like the Netherlands or Belgium. Costs have converged in these countries.

Despite new policies in Brazil, their costs are the same as France’s, the United Kingdom’s or Singapore’s. Costs in these countries have converged. Brazil is losing competitiveness (in order to develop?).

In Italy and Spain, rates remain more attractive, without reaching, however, those of China or Romania. Costs in these countries have converged.

The 100 mark bar represents France’s cost level if the Research Tax Credit did not exist.

Image (2): Researchers' rates and location of staff in 2014



In spite of France's flattering flag size, without Research Tax Credit attractiveness would decrease to such an extent that it would be the most expensive of all countries in Europe, and would probably be in a losing competitive position with the United States. The overall view predicts the emergence of European research with multiple capacities: frontier research, high value-added R&D services and collaborative development.

Attractiveness: « Handle with care »

France's attractiveness is fragile. Scores from a number of big research employers on the ANRT panel make it possible to state that is by maintaining cost competitiveness in research that the country's favourable growth in research staff is guaranteed. At the same time, staff numbers not in research are decreasing, and those countries where the gap increased unfavourably along with France are seeing a reduction in their weight in global research.

Preserving effective R&D in specialized technical fields involves maintaining a critical mass of research in the country. In the groups, research teams located in France are, in effect, in internal competition with teams located elsewhere. A researcher's cost is a crucial factor for decision-makers when keeping research in a given geographic zone (Europe, Asia, North America, South America).

Fourteen international groups, mostly members of the ANRT (National Association for Research and Technology) who carry out part of their research in France, once again accepted this year to calculate and share their researchers' costs (including direct and indirect aid), in a comparative manner.

These groups invest 14 billion euros in research worldwide; about **86 000 researchers** are included in this comparison, from a wide variety of sectors.

They have R&D teams in more than 30 countries and yet have more than half of their staff in France! If half of their research is carried out in France, it is not only for historical or patriotic reasons. The explanation is simple and can be summarized in one word: competitiveness (costs and non-costs).



ANNEX

A reliable and comprehensive barometer

International groups have every reason to view France as fertile soil for their research investments. The quality of research and proximity of important markets, along with favourable researcher rates and research costs for domestic propositions of comparable quality, are all decisive factors in favour of one or other of the R&D sites, and especially for Development.

A methodical approach favouring internal consistency

The ANRT, by taking the average cost of a researcher in France before any subsidies and research tax credit (base 100), aggregated the accounting data pertaining to each group to produce the observed researcher rate by country.

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

- the panel has at least two averages of charge-inclusive costs from two different companies
- staff at the research centres consists of more than 20 people

Pooling each of the accounting entries gives harmonised information, while taking different accountancy principles into consideration. At group level, information is thus uniform. International differences then are highly representative.

Virtuous tax measures

A sound fiscal incentive policy means providing one's country with conditions where public resources have their desired effect, no more and no less. Without sound data from the frontline, a legislator cannot know the impact of policies implemented elsewhere in the world and can only do his best to get it right. Studies carried out on tax credits for research costs quantify theoretical impacts. Despite their intrinsic qualities, this work does not have the capacity to describe the actual cumulative impact of public policies, direct aid and tax incentives on company accounts.

Only accounting in big companies is an accurate measure, where advantages and taxes are all taken into account. Accounting and tax systems in multinational groups oblige solidity and consistency; financial control and business intelligence allow actionable data to be extracted. The information is thus highly sensitive: it shows both companies' and governments' strategies across sector-specific subsidy schemes and at one location, geographic records of intellectual property.

No upper limit means no spin-off benefits

An upper limit defines the optimum expected by public authorities. An upper limit indicates the maximum research investment that a country expects. By definition, a ceiling is beneficial to those who only supplement their research investment in France and detrimental to those who maintain most of their research in France.