



HAL
open science

Harmonization of Tax Concepts in Europe The Example of R&D Notions and Expenses

Georges Cavalier

► **To cite this version:**

Georges Cavalier. Harmonization of Tax Concepts in Europe The Example of R&D Notions and Expenses. *Revue européenne et internationale de droit fiscal*, 2019, 4. hal-02961157

HAL Id: hal-02961157

<https://univ-lyon3.hal.science/hal-02961157v1>

Submitted on 8 Oct 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Harmonization of Tax Concepts in Europe

The Example of R&D Notions and Expenses



Georges CAVALIER

Associate Professor – Authorized to Supervise Research (HDR)

Director of the Tax LL.M (University of Lyon)

The financial crisis of 2008 highlighted the need to find new sources of economic growth. Innovation is one of such underutilized resources in Europe. It is generally admitted that tax incentives stimulate investment in research and development (R&D). The current research project aims at elaborating a harmonized R&D tax concept and providing an explanatory research book to aid decision makers at national and European level. The goal of this article is to present and discuss the postulate, theoretical framework, methodology, and main findings of the project which is now coming to an end.

The issue of research and development (R&D) tax incentive is very topical. It is also at the centre of a policy position with opposes direct subsidies to tax incentives. One reason for opposition might be the general aim of countries to attract companies to foster job creation through highly qualified work. Of equal importance is the generation of intellectual property (IP) as a possible outcome of R&D activities. IP is critical for the global allocation of tax revenues.

Although apparently technical, a harmonized tax concept touches upon many fundamental issues of tax law such as discrimination, ‘tax neutrality’, and interpretation of tax statutes and regulations. The scope of concepts (contained in a definition section) is an essential item as well.

R&D is indeed a good example of how difficult tax interpretation can be, even if a common threshold for collecting statistics about R&D is already supplied by the Frascati Manual. The Frascati Manual provides a good starting point for a common approach. However, the Frascati Manual suffers two main defects. First, it is drawn up by a team of experts and, as such, lacks democratic legitimacy. In addition, it is not compulsorily applied by all national legislators. Second, some recommendations of the Frascati Manual concerning, for example, the domain of research (e.g. humanities) are excluded by certain national legislation (e.g. as in the case of Ireland). This is one of the main reasons why the results of this research (Statements No. 1 and 2) aim to remove the divergent applications despite a common starting point.

The second result of the research concerns eligible expenses, identified for a long time in the national legislation as being very diverse. Consequently, Statements No. 3-9 therefore propose a common approach. These statements should therefore help to reduce negative effects resulting from legal fragmentation. They could contribute to shaping of a new tax legal order, particularly within the European Union.

La crise financière de 2008 a souligné la nécessité de trouver de nouvelles sources de croissance économique. L'innovation est l'une de ces ressources dont on estime qu'elle recèle de forts potentiels en Europe. Il est généralement admis, même si cela est parfois discuté, que les incitations fiscales stimulent l'investissement dans la recherche et le développement (R&D). Un projet de recherche visant à élaborer un concept harmonisé de R&D en Europe, ainsi qu'un ouvrage proposant de faire émerger les contours de ce concept pour aider les décideurs aux niveaux national et européen est actuellement en cours de finalisation. Le but de cet article est de présenter et discuter le postulat, le cadre théorique, la méthodologie et les principaux résultats de ce projet de recherche.

Cette question des incitations fiscales à la R&D est d'une grande actualité. Elle est également au centre de discussions de politique juridique et fiscale qui opposent les incitations fiscales aux subventions directes. L'une des raisons pourrait être l'objectif général des pays d'attirer les entreprises pour favoriser la création d'emplois grâce à des travailleurs hautement qualifiés. De même, alternativement, il s'agirait de baisser indirectement

un taux d'impôt sur les sociétés ou des charges sociales déjà élevés. La propriété intellectuelle (PI) est au moins aussi importante que le résultat possible des activités de R&D : ces actifs de PI sont considérables dans l'allocation globale des recettes fiscales.

Même si cela semble très technique, le domaine particulier de la R&D touche de nombreuses questions fondamentales du droit fiscal, comme la discrimination, le principe de neutralité fiscale, ou les principes d'interprétations fiscales. La portée des concepts (définitions) est un élément essentiel du droit fiscal international. La R&D est en effet un bon exemple de la difficulté d'interpréter la loi fiscale, même si l'on pourrait croire être privilégié en la matière en raison de l'existence du Manuel de Frascati. Il offre un point de départ pour une approche commune. Mais le Manuel de Frascati présente deux défauts principaux : ce n'est pas tant qu'il n'a pas été conçu à des fins fiscales. Son premier défaut est plutôt qu'il s'agit uniquement de droit souple, à supposer que l'on puisse le considérer comme une source de droit indirecte. En tant que tel, il lui manque la légitimité démocratique, et il n'est donc pas d'application obligatoire par chaque législateur national. Ceci explique sa seconde lacune : certaines recommandations du Manuel de Frascati, quant au domaine de la recherche par exemple (les sciences humaines pour ne citer qu'elles), sont purement exclues par certaines législations (e.g. l'Irlande). C'est l'un des principaux résultats de cette recherche (déclarations n^{os} 1 et 2) visant à gommer les conceptions divergentes en dépit de ce point de départ commun. Le deuxième résultat de la recherche concerne les dépenses éligibles qui étaient identifiées depuis longtemps dans les législations nationales comme étant d'une nature très diverse : les déclarations n^{os} 3 à 9 proposent donc une approche commune. Ces déclarations devraient donc contribuer à réduire les effets négatifs résultant de la fragmentation juridique. Ce faisant, elles pourraient participer à l'élaboration du nouvel ordre juridique fiscal, particulièrement au sein de l'Union européenne.

Harmonization of tax *rules* is frequently discussed today. However, harmonization of tax concepts is less often discussed¹. Finding a common language to share is a prerequisite to adopting common rules. Tax concepts have precise meanings, and the differences in tax systems structures may not necessarily reflect a mutual understanding. To test the idea of developing a 'common language' for tax, a European research group selected one of the two main tax incentives found in tax systems: the R&D tax incentive.² At first glance, one might think that R&D concepts are commonly understood given the Frascati Manual audience in tax matters.

The Frascati (and/or Oslo) manuals have generally served as a starting point in defining research and development: R&D is described as "*compris[ing] creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications*".³ But the Frascati Manual suffers two main defects. The first defect is that it is solely soft law, being developed and updated by a

team of experts. As such, it lacks democratic legitimacy. This leads to a second defect, which is that it is not compulsory applied by each national legislator. Some recommendations of the Frascati Manual, as to the domain of research (e.g. humanities), are not recognized by certain legislations.

The European research group's research thus reveals that even within the European context, the same R&D *tax concept* is not understood the same way within all EU Member States. The same conclusion is also reached with respect to R&D *tax expenses*. The project proposes a common approach to both the R&D *tax concept* and R&D *expenses*. The proposals take the form of several (draft) Statements⁴ offering a new definition and conceptual framework for R&D costs in the course of tax harmonization, particularly in the EU.

Paragraph (1) of this article places the issue of a harmonized R&D tax concept within its greater context and highlights the different approaches to R&D

1. See however R.F. VAN BREDERODE, R. KREVER, *Legal Interpretation of Tax Law*, 2nd ed., Wolters Kluwer (2017).

2. The second main tax incentive is the one relating to interest deduction. Most corporate tax systems give incentives to companies to take on more debt by allowing interest payments to be deducted. They usually do not grant similar treatment to equity.

3. OECD (2015), *Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development*, OECD Publishing, Paris, available at <http://dx.doi.org/10.1787/9789264239012-en> The Oslo Manual includes guidance documents on the measurement of innovation.

4. From a non-normative standpoint (i.e. positivist view), the Black law dictionary defines a statement, in the general sense, as "*an allegation or a declaration of matters of fact. The term has come to be used of a variety of formal narratives of facts, required by law in various jurisdictions as the foundation of judicial or official proceedings*". This is not this ordinary sense used for the proposed Statement. The Statement envisaged here is rather closer to the American Law Institute *Restatements* or *Principles*. The difference between the two is that *restatements* are primarily addressed to courts, *Principles* primarily addressed to legislatures, administrative agencies, or private actors. Statement would therefore be addressed both to courts and legislature. The Statement is therefore close to a *position research paper*, which is an essay that presents an arguable opinion about an issue in this specific area of tax law.

incentives. Attention is then paid to the need for a theoretical framework (2) and on the methodology (3) to facilitate grasping the main findings of the project (4), with the main arguments being currently published in a more comprehensive research book.⁵

1. The Postulate

The postulate aims to reposition the traditional views upon which R&D tax incentives were built, that is, exclusively at national levels. In doing so, it considers many actors such as taxpayers, tax judges, but also the States – fifteen States are represented in the study – through their tax administrations. The postulate also takes into account the work of international organizations (OECD and the European Union). Both internationalization and Europeanization now challenge the existing framework of tax incentives. A preliminary definition of tax incentives is given by the Collins dictionary. According to the general understanding, tax incentives are part of a country's tax code whereby the government, by means of a tax provision, intends “to encourage individuals and businesses to spend money or to save money by reducing the amount of tax that they have to pay.”⁶ Tax incentives which are designed to incentivize or encourage a particular economic activity, can have both, positive and negative impacts on an economy. Among positive benefits, tax incentives can attract investment to a country if implemented and designed properly. There is therefore an important public law aspect (public finance) to this research project.

Indeed, R&D is one of the five targets to sustain economic development of the EU. Expenditure in R&D should amount to 3% of the EU's GDP. R&D tax incentives are an appropriate means to reach this goal.

At the same time, Germany – one of the leaders in the EU in terms of R&D – prefers direct funding of R&D to tax incentives for such purposes. There are no specific tax incentives and the regular German tax regime applies to R&D activities. That said, Germany is now considering introducing a tax credit for R&D purposes. A draft law was introduced for this purpose in 2016 and the proposal for a tax credit was finally adopted in late November 2019.

The R&D tax regimes of a number of different EU countries allow taxpayers to benefit in due course and through many techniques from a low effective tax rate for R&D income. Even if double-counting a tax advantage for a single research activity is carefully

monitored at national level, the same is not true in the international level. Since there are gaps in taxation, a given R&D activity may benefit from several incentives. The reason for the benefit stems from the lack of coordination between States, which address tax incentives usually solely through unilateral action.

This unilateralism contrasts with the European Commission decision, on 25 October 2016, to re-launch the common (consolidated) corporate tax base (C(C)CTB) project in a two-step approach: the Commission published two new interconnected proposals on a common corporate tax base (CCTB) and a common consolidated corporate tax base (CCCTB).⁷ However, it is still unclear whether the CCTB will be adopted any time soon. Right now, the strategy is more on temporary “quick fixes” (such as taxing the digital economy and GAFA) rather than on a comprehensive solution. Still, the CCTB draft directive provides for a “super deduction” for “costs for research and development”.⁸ With such “super deduction”, the taxpayer can deduct more than the expenses occurred.⁹ The European Parliament therefore added the following important and unequivocal assertion to the Commission's proposal:

“A clear definition of the genuine expenses of research and development is needed to avoid misuse of the deductions.”¹⁰

The current (draft) Statement does not deal with the decision to opt, at EU level, for a super deduction or for a tax credit. It only addresses the more general and conceptual question of “*what should be the notion of research and development activity, and costs associated thereto*” at the European level. This question was valid for the super deduction for R&D expenses. It is still valid for an R&D tax credit, and for many tax incentives. The research focuses on input incentives

7. This 2016 CCTB provides for the determination of a single set of rules for calculation of the corporate tax base.

8. In particular, art. 9.3.

9. The European Parliament report dated March 1st, 2018, proposes to delete the super-deduction for research and development costs and introduce instead a provision, according to which, for R&D costs of less than €20 million which relate to staff, subcontractors, agency workers and freelancers, tax payers will receive a 10% tax credit based on the costs incurred: European Parliament Report on the draft CCTB directive, doc. No A8-0050/2018 dated March 1, 2018, see recital 8 and proposed amendments to Article 9. This report was adopted with no amendment with respect to the 10% tax credit by a European Parliament legislative resolution dated March 15, 2018 (hereafter the “2018 CCTB”): see European Parliament legislative resolution of 15 March 2018 on the proposal for a Council directive on a Common Corporate Tax Base (COM(2016)0685 – C8-0472/2016 – 2016/0337(CNS)).

10. 2018 CCTB, Recital 8. There is probably a language correction that would be needed in due course, as the European Parliament uses the word “deductions” whereas, at the same times, it deleted the super-deduction to replace it by a tax credit.

5. To be published in principle by Oxford University Press.

6. Collins English Dictionary, 12th Edition, Vis “Tax Incentive”.

(e.g. R&D tax credit and super-deduction). More and more EU countries also have very attractive special tax IP regime, and in particular patent box¹¹ also known as “intellectual property” box regime, “innovation box” or “IP box”. These output incentives are generally applied on revenues, and not on expenses as on the case of the R&D tax credit or super deduction. The Frascati definition comes of course into play, but simply as a starting point since it is not always the same definition of research as for input incentives, even in the same countries. However, the French draft administrative guidelines makes direct reference to define research operations to its R&D tax credit guidelines.¹² This makes even more relevant the efforts to encourage a common understanding of R&D notions and expenses within Europe. Whatever the type of adopted incentive(s), a theoretical framework is necessary.

2. Theoretical Framework

The European research group’s theoretical framework has to be located within the financial theories and more precisely within the public finance and tax expenditure theories¹³, which have an allocation function. They aim at providing a better social goods through the process by which total resources used is divided between private interests. The second function of public finance theories is distributive: they promote what society considers a “fair” or just state of distribution of income and wealth. By providing an R&D tax incentive, the 2016 CCTB or 2018 CCTB takes the stand for promoting a European view of what the EU considers a “fair” or distribution of public good in the innovation sector. Although the 2016 CCTB defines “*research and development*” (art. 4.11), including basic research¹⁴, applied research, and experimental development, there is no precise understanding of the costs which should, or should not, be taken into account for purposes of the “super deduction”. A related question is whether research in the social sciences, humanities or even arts be viewed in Europe as a better social good and be promoted through public finance? This is a debatable question. In the drafting phase of an earlier (2011) version of the CCTB proposal, the Commission did not consider seeking consensus on an EU-wide definition of R&D for tax purposes: R&D

support is slightly mentioned in a 2007 CCCTB working group paper, but no such R&D tax incentive was finally provided in the 2011 proposal.¹⁵

This absence of controversy contrasts sharply with nowadays discussions. Reasons for the difference in the intensity of discussion could be: first, patent box regimes were not as common and widespread as today. Second, and as the 2011 proposal was “only” optional for companies and not intended to increase the tax charges for companies or reduce the tax revenues for EU Member States, simplicity and ease of administration (for both companies and tax administrations) was an important priority for the work on the CCCTB at that time. An important objective was to tackle obstacles for doing business in the Single Market and making the EU an attractive and competitive place for EU companies and foreign direct investments.

But since then, a lot of water has flowed under the bridge: the rules introduced from BEPS work in general and from the ATAD 1 and 2 approaches in particular into the Common Base, triggered the need for a balancing approach. It was therefore decided to insert new measures into the CCTB project, such as temporary loss-Off-set, notional interest (AGI) and the R&D super deduction.¹⁶ And public finance theories are at stake when defining which should be the criteria for research, novelty, or even the R&D costs taken into consideration.

Today, across most EU countries, the input incentive bases typically used are *R&D costs* (most countries), wages, R&D/IP costs.¹⁷ A distinction is usually drawn between current expenditure (wages, salaries of R&D staff, cost of materials, etc.) and capital expenditure (cost of equipment and facilities used for R&D purposes). For instance, in Finland only wages and salaries of R&D staff are taken into account. Other current expenditure (cost of materials, etc.) and capital expenditure being excluded. But many options remain. For example in the case of R&D staff costs, how should eligible staff be determined? One

11. So-called because there is a *box to tick* on the *Patent boxes* tax qualifying profits.

12. See BOI-BIC-BASE-110-10-20190717, No 140.

13. Financial theories are broader than the term “public finance theories” because of financial theories examining, for instance, the money markets, private insurance or corporate finance.

14. In some States, “basic research” is known as “fundamental research” but the Frascati Manual prefers the first term.

15. CCCTB working group paper dated July 27, 2011 and entitled “*CCCTB: possible elements of a technical outline*” (CCCTB/WP057/doc/en), especially page 9, footnote 14 providing: “*This effectively gives 100% deduction of research and development expenditure even when of a capital nature*”. See generally the background documents for the preparation of the 2011 CCCTB proposal: https://ec.europa.eu/taxation_customs/business/company-tax/common-consolidated-corporate-tax-base-ccctb/preparation-2011-ccctb-proposal_en.

16. Thanks are due to Uwe Ihli, Head of section – Corporate Tax Directives and Common Consolidated Corporate Tax Base with the European Commission for very useful insights.

17. European Commission, *A Study on R&D Tax Incentives*, Final Report, Nov. 2014, https://ec.europa.eu/futurium/en/system/files/ged/28-taxud-study_on_rnd_tax_incentives_-_2014.pdf, Tables 5.2 & 5.3, pp. 57 & 58.

might agree that the salaries of R&D engineers should be included, but what about those of technicians and assistants? And how should staff costs be defined generally? Do they include bonuses, benefits in kind and compulsory social security contributions? What should be the tax treatment of assets which are only partly used for R&D eligible projects? Still another distinction could be made concerning contracted R&D expenses versus expenses for R&D directly and personally carried out by the taxpayer.

Along with an inquiry as to which costs are included, there could be greater precision in the *definition of R&D itself*. Indeed, one recital of the CCTB directive mentions the goals of the “super deduction” as “[t]o support innovation in the economy and modernize the internal market”.¹⁸ Therefore, national tax administrations may argue that costs associated with research which do not have any particular application or use in view of the economy or modernization of the internal market may not qualify for the “super deduction”. But taxpayers may well argue the contrary, based on some European national tax tradition of fostering basic research with no commercial objective. This is simply one example of the debates that may occur as regards the definition of “research and development” for CCTB purposes. To properly discuss the options, a specific methodology had to be developed.

3. Methodology

Traditionally, tax concepts were, and for the most part still are, of domestic origin. But the methodology for tax characterization and reasoning is currently evolving. The importance of foreign (tax) law is growing, eroding the traditional view that domestic tax judges only apply domestic tax law.¹⁹ In this methodology section, emphasis is given on the following initial question: what is the philosophy of this research? Definitions of “R&D” notion and “*R&D expenses*” may depend on assumptions about human knowledge (epistemological assumptions), about the realities encountered in this research (ontological assumptions) and on the extent and ways the own values of the researcher may have influenced this research process (axiological assumptions).²⁰ To define “R&D”, one has to bear in mind that from a reflective standpoint, what would constitute

acceptable and desirable knowledge. The answer to this fundamental question has been somewhat influenced by practical considerations, such as the time and finances available for this research project, and the access to legal and tax systems. In trying to answer this question, the team members have kept their very personal viewpoints separate. The “R&D” definition involves tax policy, which also touch sensitive areas essentially based on values. Fundamentally, it involves the relationship between the tax system and the rest of society. Objectivity may thus be in jeopardy. Among the central questions are (i) what is the actual tax autonomy of a Member State in the EU environment²¹, but also (ii) how do corporate taxpayers view an R&D tax incentive and consider it in their decision-making?

The answers to these questions could be mostly characterized as *judicial or legal dogmatics*. The bulk of this tax research involves consideration of the existing judicial view towards an interpretive issue, i.e. what would constitute “R&D” for tax purposes, in particular within the CCTB system. But in addition to this interpretative task, the definition of “R&D” has also a *systematizing* dimension.²² The objective of this research was to continue the legislator’s work from the point it has now reached.

The next methodological question is why to compare? Comparative law has been considered the necessary tool, within the EU, for a desirable harmonization of law in general, and of tax law in particular.²³ Questionnaire are common devices in comparative work.²⁴ To avoid ethnocentrism, a uniform questionnaire has been drafted in consultation with the national experts and this drafting process included a “test phase”. This phase was designed to ensure that the national experts construe all questions in the same way. Due to the

18. Recital no 8.

19. See generally G. CAVALIER, “Règle fiscale française, droit international privé (communautaire) et droit (non fiscal) étranger : quelle méthode d’articulation?”, *RISF*, 2019/1, p. 82; see also G. CAVALIER & R. DI NUZZO, “Les droits fondamentaux : nouveaux outils pour les fiscalistes?”, *Studi Urbinate*, vol. 69, 2018, p. 1825.

20. See generally, M. ALVESSON & K. SKÖLDBERG, *Reflexive Methodology: New Vistas for Qualitative Research*, Sage publication, 2000.

21. See recently G. ROSSOLITTO, Fiscalità e sovranità: riflessioni sulla ripartizione delle competenze Stati membri e Unione europea, *Rev. Diritto dell’U.E.*, n° 1/2018, p. 122; see also A.C. DOS SANTOS, C. MOTA LOPES, Tax Sovereignty, Tax Competition and the Base Erosion and Profit Shifting Concept of Permanent Establishment, *EC Tax Review* 2016, p. 296.

22. See M. MYRSKY, *Basic Research in Tax Law*, Stockholm Institute for Scandianvian Law, p. 277 (at 278).

23. M. VAN HOECKE, *Methodology of Comparative Legal Research*, Law and Method, December 2015; R. SALEILLES, Droit civil et droit comparé, *Revue inter. Enseignement* 1911, p. 22; E. RABEL, Aufgabe und Notwendigkeit der Rechtsvergleichung, *Rheinische Zeitschrift für Zivil- und Prozessrecht* 1924, p. 279-301, reprinted in H.G. LESSER (ed.), *Ernst Rabel Gesammelte Aufsätze*, vol. III, *Arbeiten zur Rechtsvergleichung und zur Rechtsvereinheitlichung 1919-1954*, Tübingen: J.C.B. Mohr 1967, p. 1-21; P. PESCATORE, Le recours dans la jurisprudence de la Cour de justice des Communautés européennes à des normes déduites de la comparaison des droits des États membres, *Rev. int’l dr. comp.* 1980, p. 337.

24. See generally, M. RHEINSTEIN, Teaching Tools in Comparative Law – A Book Survey, *Am. J’l Comp. L. vol.* 1, No 1/2, 1952, p. 95.

difficult of accessing to foreign materials, comparative legal research is often carried out via a circle of national experts. Each expert answers a uniform questionnaire about the tax regime in their country.

It is also preferable that one and single language is used. Due to the difficulty in finding local experts with French language ability, English has been the team's working language. English is very relevant for a European comparative tax research, as it is a federative device helping to pursue harmonization of law. Therefore, local scholars were contacted, and judges and lawyers were identified who are able to carry out research in English. A sophisticated network of tax experts has thus been put together, which is very valuable. Each respondent has the ability to answer the questionnaire: most are tax academics, but the team also includes tax judges and other tax practitioners. All team members have been selected based on their expertise in the tax field, notably on the subject of tax incentives, and based on their command of English. Such diverse participation is not always easy to achieve since involving so many people in a still time-consuming task remains a challenge. One very active team member is a transfer pricing expert involved in academic research. The communication within the team was intense and qualitatively good. Nevertheless, the selection of English as a working language did not result in focusing on common-law countries that use English as their (main) official language; the tax systems to be compared do not belong, for the most part, to the Anglo-Saxon world.

A *third* methodological question that was addressed was the selection of the tax systems to be compared. A country selection was made in order to focus the available resources on the most meaningful jurisdictions.²⁵ Fifteen EU countries and Switzerland were selected based on their R&D spending in 2014. This information is easily accessible through Eurostat data.²⁶ Eurostat's statistics on R&D expenditure are compiled using guidelines laid out in the Frascati Manual. Based on the R&D spending, it was not necessary at this stage to have Cyprus or Malta represented in the study.²⁷ "Innovation leaders" include Germany and Finland in Europe.²⁸ Portugal, Estonia

and Latvia have shown the most improvement in R&D over the past few years, but are not classified as "regional innovation leaders".²⁹ These regional innovation leaders are located in only eight Member States, and consist of Denmark, Germany, Finland, France, Ireland, the Netherlands, Sweden and the United Kingdom. Although the UK is a large R&D spender, it is not represented in the study. One reason for its absence is due to Brexit. Although this project is partly sponsored by a European institute, not an EU institution, and despite the fact that the UK is in Europe, it is also true that the Brexit should not make the CCTB as relevant to the UK as for France, Germany, or Ireland. But since this study goes beyond the CCTB, its results should remain relevant to the UK. A specific R&D study could be carried out based on the Brexit scenario. As of 2018, and just to limit the example to the relevance of the UK to the French R&D tax credit, 177 UK entities were approved by the French Ministry of Higher Education and Research. This remains less than Germany, which has 296 entities approved in France.

Switzerland is included as a good comparative indicator for both practical and scientific reasons: Swiss Professor Robert Danon, well known by tax R&D experts, carried out extensive work on R&D tax incentives, and was the team leader general reporter to the 69th Congress of the International Fiscal Association (Basel, 2015) on the subject no 1 entitled "*Tax incentives on research and development (R&D)*". Switzerland is a country where EU law is closely followed, even sometimes in its tax developments. However, the availability of specific national R&D tax incentive was not a criteria, as the EU-designed tax incentive would, in due course and if adopted, be applied as well in these countries with originally no tax incentives. Germany, Estonia, or Switzerland for instance, had no specific tax incentive for R&D, when the research was initiated, and Germany especially is nonetheless a major player in Europe in innovation. Innovation financing there relies heavily on direct grant/subsidies.³⁰ Although an increasing number of States currently favor tax incentives over direct subsidies to support R&D, and Switzerland is following this trend,³¹ one should

25. See R. BUIJZE, The Categorisation of Tax Jurisdictions in Comparative Tax Law Research, *ELR* Dec. 2016, No 4.

26. Eurostat, 2019/2015, *R&D expenditure in the EU stable at slightly over 2% of GDP in 2014*, dated Nov. 30, 2015.

27. Cyprus (83 million euro) and Malta (67 million euro). The highest shares of R&D expenditure performed in the business sector were observed in Slovenia (77%), Ireland (73%), Hungary (72%), Belgium and Austria (both 71%), Germany and Finland (both 68%), Sweden (67%), Bulgaria and France (both 65%), Denmark and the United Kingdom (both 64%).

28. Eurostat, *Smarter, greener, more inclusive? – Indicators to support the Europe 2020 strategy*, 2015, p. 68, available at <http://ec.europa.eu/eurostat/documents/3217494/6655013/KS-EZ-14-001-EN-N.pdf/a5452f6e-8190-4f30-8996-41b1306f7367>.

29. Their innovation performance index increased by more than 25% between 2006 and 2013. *Id.*

30. In the European Union for example, "Horizon 2020" is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020). See Directorate-General for Research and Innovation, *Horizon 2020 a full swing – Three years on. Key facts and figures 2014-2016* (2018).

31. Switzerland considered introducing by 2020 a R&D tax incentive in *Tax Proposal 17* at cantonal level. The 2018 Federal Act on Tax Reform and AHV Financing ("TRAF") was adopted on May 19,

not underweight Germany in the design of this EU tax incentive, since tax convergence within the EU in the field of direct taxation of corporation is the initiative of both France and Germany.³² Represented countries are therefore: *Austria, Belgium, Croatia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, Poland, Spain, and Switzerland.*

In these countries, the questionnaire was sent to the team members, also named “National Correspondents.”

The fourth methodological question was to inquire what has to be compared. Even if social sciences have a great deal to offer to tax law research, and although much attention was paid to economic research, the statements remain a tax *law* research. They do not intend to initiate research work in other disciplines. Its only aim is to benefit from existing research results. Therefore, the National Correspondents had to focus mainly on tax “legislation”. But tax “legislation” was not understood only in its formal sense: much attention was also paid to judicial decision, administrative guidelines, and the way tax R&D incentives apply in practice. Therefore, and largely because of time constraints which did not allow full comparative work to be conducted in the drafting phase of the questionnaire, the questionnaire was drafted largely based on existing case law and administrative guidelines available to the reporter. Given the timeframe and team resource availability, the French tax credit (*crédit d’impôt recherche*) was used as a basic example. The reason for this initial focus is because the associated body of law is well known to the core members of the group and also because France has an advanced tax credit system that has been applied for several decades. For instance, the questionnaire indicated possible R&D expenses that could be viewed as eligible to the CCTB super deduction.

Each identified question in the questionnaire has then been subject to comments, approval or refusal by team members across Europe. Based on these initial answers, a selected number of items has been identified, and subject to further comments.

Finally, there is the question of comparing national answers, which was carried out via the so-called

“functional method”.³³ This method offers one concrete guideline in that it suggests to focus on (common) tax problems and tax solutions in the compared tax systems, rather than on the (diverging) rules and doctrinal frameworks. Based on their national “law”, each National Correspondent was to answer the questionnaire attached in Annex I to the best of their knowledge. It was stressed that the answers should bear in mind the harmonisation purposes, in particular the interpretation of Articles 4 (11) and 9.3 of the CCTB (draft) directive. Therefore, in reporting on their national tax law system, local experts have assessed (positively and/or negatively) and explained their position with respect to particular expenses, and therefore proposed their own interpretation of Article 9.3 with their own tax background in mind.

Meaded by the general Reporter, team members acted as “inventors”, since they propose in this Statement new concepts to be inserted, for instance, into a legal (tax) instrument (e.g. the CCTB), paving the way for EU tax legislator. In contrast and in addition, the National Correspondents acted as “collectors”, by collecting rules and court or tax administration decisions. In spite of these differences, both inventors and collectors are linked to the government. In a way one could say that inventors are related to tax law-making branches whereas collectors are related to second/third branches, i.e. tax administrations and courts.³⁴ The section below contains arguments and experimentation which arose in the research substantiating the opinions or positions put forward in the Statement with evidence from an extensive objective discussion of the Statement proposals.

4. Main Findings

The definition of R&D expenses could be immediately improved in several identified areas: First, as to the domain of research, some fields (e.g. humanities), are purely excluded by certain legislations. This is one of the main result of this research (statements no 1 and 2) given the aim to remove the divergent applications despite a common starting point. Another result of the research concerns eligible expenses which were known for a long time as being subject to very diverse national tax regimes: statements no 3 to 9 therefore propose a common approach. All these proposals should therefore help reducing negative effects resulting from legal fragmentation.

2019. An OECD compliant patent box will therefore be introduced at the cantonal level. In addition, the cantons will have the possibility to institute an additional deduction of R&D costs up to a maximum of 50 percent above the effectively incurred costs of companies.

32. See for instance, R. KRUSE & F. RIESTER, “Pour un code européen des affaires”, newspaper *Le Monde*, 5 May 2018, chapter “Idées”, p. 7 and also published in the newspaper *Handelsblatt*, 5 May 2018, No 92, p. 15. In the European Business Code project led by France and Germany, a tax section is envisaged.

33. K. ZWEIGERT & H. KÖTZ (trans. T. Weir), *An introduction to Comparative Law*, Oxford: Clarendon Press 1998, p. 35.

34. See Q. JIANG & Y. YUAN, “Legal Research in International and EU Tax Law”, *European Taxation*, Oct. 2014, p. 470.

The (draft) Statement only builds upon controversial issues (e.g. novelty perspective), and does not intend to repeat what is commonly accepted without debate (e.g. the novelty requirement). The Statement should contribute to the shaping of the new tax legal order, particularly within the European Union with, first, a definition of R&D activity itself and, second, of R&D costs.

Statement no 1: ‘research and development’ includes basic research, applied research and experimental developments with or without commercial objectives in all fields of knowledge, including social sciences, humanities and, where research is involved, the arts.

Based on the National Reports, R&D for CCTB purposes should indeed generate new knowledge as an output, irrespective of its purpose, which could be the generation of economic benefit, addressing societal challenges or simply having the knowledge in itself. R&D should include all activities, irrespective of their application or use. Such unanimity is interesting as this would distinguish a European Approach to R&D which will include basic fundamental research, as opposed to the American tax concept of R&D. In the course of the discussions, it was decided not to list the criteria (e.g., links with public research laboratories, involvement of staff with PhDs or PhD students, publication of research findings in peer-reviewed journals, organization of scientific conferences, involvement in scientific review) serving to identify the presence of R&D in the above mentioned activities since research can take so many forms, including without the presence of the above indicia (for instance, research in business model and design).

Statement no 2: The novelty of the R&D is considered from the perspective of the publically available knowledge (world’s perspective), and the company’s private knowledge (firm’s perspective);

In order to achieve a uniform interpretation of novelty, one should consider an expert-body at EU level which could, for instance, build upon the decision of the Boards of Appeal of the European Patent Office.

Statement no 3: R&D staff includes researchers holding a degree having tested research activities, and who effectively conduct research activities in the taxpayer entity.

R&D staff also include researchers with no degree but having research experience gained through the performance of R&D tasks for at least four years and who can evidence such track records. R&D staff also include laboratory technicians and the like with no degree but having research experience gained through the

performance of R&D tasks for at least two years and who can evidence such track records.

Support staff are also included as R&D staff as long as their activities are necessary to conduct such research activities properly.

Where staff participate both in R&D and non R&D activities, eligibility should be proportional based on time spent.

Based on the National Reports, the notion of R&D staff is broader than that of researchers and scientists and should therefore not be defined through the use of black letter criteria but rather with reference to a more open definition. For instance, research technicians should be included because without them, research cannot be properly carried out.

Statements no 4-7: All human resources related costs are eligible apart from profit-sharing schemes or any kind of return on investment. If a profit-sharing scheme is based on research, related costs may be eligible to that proportion.

Standardisation expenses are not included, with the exception of research activities using scientific methods for the purpose of standardisation. Expenses incurred in the course of engaging in technology watch connected to research projects is eligible [up to an amount of [EUR_____] per year and per taxpayer].

Expenses linked to the filing, the maintenance and the defence of patents incurred in an EU Member State (IP consultants’ fees, translation costs, taxes, etc.) are eligible [up to a maximum of [EUR_____]]; insurance costs linked to patents are eligible [up to a maximum of [EUR_____]].

Other operating expenses related to R&D are computed based on actual involvement in R&D activities. Alternatively, this could be notionally assessed as 50% of research staff expenses. The services of tax advisors or innovation firms are regularly tax deductible but are not eligible as “costs for R&D”.

With respect to indirect R&D cost (e.g. support staff indirectly and partially affected), and if an analytical accounting document providing details of expenses based on time spent, the current research team is of the view that a percentage allowance would be a preferred solution to avoid time consuming computation.

Statement no 8: If R&D activity is outsourced to R&D service suppliers, these subcontracting expenses are eligible up to a [certain] percentage of the total R&D expenses incurred, provided the subcontractor’s activities are within the European Free Trade Association.

Priority should be given to the principal company (i.e. ordering company) for claiming the tax incentive. [If the ordering company can benefit from such tax incentive, the R&D supplier (i.e. subcontractor) is not entitled to this tax incentive.]

Government and state agencies' subsidies/grants related to R&D eligible projects should be deducted from eligible expenses of the year during which these expenses are incurred, and irrespective of the payment date of the subsidies/grants.

Based on the National Reports, contracted expenses should be qualifying expenses for the purposes of the super-deduction (Austria, Belgium, Croatia, France,

Greece, Ireland, Italy, Luxembourg, Poland, Spain, and Switzerland). However, some States introduce limits in their legislations: e.g. up to 70% of the research project can be sub-contracted in Greece for example. Other States such as Austria (where the agent can not be controlled by the principal, nor can they be in the same group of companies), France, and Spain have provisions to prevent the double use of expenses, both at the principal, and at sub-contractor levels. This is the clear trend at national level; under a European tax incentive regime, this rule should be applied in case of EU subcontracting. In any event, this should be clearly addressed by the draft CCTB directive, or another tax harmonization project.

Annexe I Questionnaire

	Answers and comments	Technical source (when necessary)
1. "Research and development" Definition		
1.1 As indicated in Section I (<i>supra</i>), should "research and development" be excluded if there is no particular application or use in view for the economy or the internal market?		
1.2 Should the level of novelty be new "to the world", "to the internal market (EU)", "to the market", or "to the firm"?		
1.3 Should R&D be limited to the industrial sector, or also include the service industry (banking and insurance, but also humanities)?		
1.3.1 In the latter case, which criteria help to identify the presence of R&D in services activities		
1.3.1.1 Links with public research laboratories;		
1.3.1.2 Involvement of staff with PhDs or PhD students;		
1.3.1.3 Publication of research findings in scientific journals;		
1.3.1.4 Organization of scientific conferences;		
1.3.1.5 involvement in scientific reviews;		
1.3.1.6 Others?		
2. "Costs" (for research and development) Definition		
A. Capital expenditure		
2.1 Depreciation allowances		
a. General Principles		
<p>Draft Art. 9-3 provides: "In addition to the amounts which are deductible as costs for research and development in accordance with paragraph 2, the taxpayer may also deduct, per tax year, an extra 50% of such costs, with the exception of the cost related to movable tangible fixed assets, that it incurred during that year. To the extent that costs for research and development reach beyond EUR 20 000 000, the taxpayer may deduct 25% of the exceeding amount."</p> <p>In addition, the Explanatory Memorandum (<i>para. 8</i>) provides: "R&D costs will be fully expensed in the year incurred (<i>with the exception of immovable property</i>)".</p> <p>Draft Art. 10 (Other deductible items) provides: "A deduction shall be made in respect of the depreciation of fixed assets referred to in Articles 30 to 40. (...)"</p> <p>Draft Art. 12 (Non-deductible items) provides: "By way of derogation from Articles 9 and 10, the following items shall be non-deductible: (...) (i) acquisition or construction costs or cost connected with the improvement of fixed assets which are deductible under Articles 10 and 18, except for the cost related to research and development. The costs referred to in point (a) of Article 33(1) and points (a) and (b) of Article 33(2) shall not be treated as costs related to research and development; (...)" – For additional context, see Annex.</p> <p>Based on your national tax background:</p>		

■ Première partie – La fiscalité du grand marché

2.1.1 Do you share our understanding that depreciation allowances have to be distinguished depending on the assets concerned, whether they are movable or immovable?		
2.1.2 Do you share our understanding that depreciation allowances are not available for movable fixed assets, because they are fully expensed in the year incurred, and not eligible to the super-deduction?		
2.1.3 Do you share our understanding that depreciation allowances remain available for immovable [<i>property</i>], because it cannot be fully expensed in the year incurred, and is eligible to the super-deduction?		
2.1.4 What if an asset is used both for research and non-research purposes (such as manufacturing)?		
2.1.5 If eligible, which criteria for proportional eligibility if asset used both for R&D and manufacturing purposes (e.g. an equipment used both to manufacture prototypes and serial products)?		
2.1.6 What if the asset is “indirectly” used for R&D purposes?		
2.1.7 What do you think of the following definition: “Is considered directly used for R&D purposes an asset permitting, in and of itself, to carry out research programs of the business”?		
2.1.8 Is the production of the following assets an R&D activity? (i) production of prototypes; (ii) construction of a pilot plant/or pilot facilities		
2.1.9 Would you characterize the following assets as, potentially, directly used for R&D activities: (i) Handling devices; (ii) Calculation tools; (iii) Computers; (iv) Machines used to manufacture components of a prototype; (v) Telephones, small office appliances, office furniture?		
b. Specific Rules		
(i) Intangible Assets		
<p>Draft Art. 33.1(e) provides: “Without prejudice to paragraph 2 and Articles 37 and 38, fixed assets shall be depreciated individually over their useful lives on a straight-line basis. The useful life of a fixed asset shall be determined as follows: [...] (e) fixed intangible assets: the period for which the asset enjoys legal protection or for which the right has been granted or, where that period cannot be determined, 15 years”</p> <p>The problem is that not all intangible items (e.g. intellectual property, brand names), meet the definition of an intangible asset. If an item does meet the definition of an intangible asset, expenditure to acquire it or generate it internally should be recognized as an expense when it is incurred.</p> <p>Therefore, based on your national tax background:</p>		
2.1.10 Should we use the European Union Accounting Rule 6 defining intangible asset (i.e., identifiability, control over a resource, and existence of future economic benefits or service potential)?		
2.1.11 If not, what should be the definition of intangible assets?		
2.1.12 Are intangible fixed assets (including intellectual property (IP)) costs fully expensed in the year incurred and included in the CCTB super-deduction?		
The inclusion of mere intellectual property costs is not advisable: it may create a bias in favour of patented research compared to that stemming from unpatented technology.		
2.1.13 Will in practice this provision be limited to patents costs acquired with a view to carry on new experimental research and development?		
2.1.14 What if these patents are (also) used in the manufacturing process?		
2.1.15 Should plant variety rights be treated in the same manner as patents?		
2.1.16 What about outlays incurred to acquire licences or know-how?		
(ii) Immovable [<i>property</i>]		
→ In any case, not covered by exclusion in art. 9-3		
In Austria, building costs and financing expenses related to R&D activity may be taken into account.		
2.1.17 Should the concept of “ <i>immovable property</i> ” (recital no 8) be preferred to the one of “ <i>immovable fixed asset</i> ” (as opposed to art. 9.3 CCTB)?		
2.1.18 Would building costs and financing expenses related to the acquisition of immovable [<i>property</i>] be eligible to the super-deduction?		

2.1.19 What is your understanding of art. 12(i): 1 st meaning: that costs related to acquisition or construction of new commercial or second-hand commercial or industrial immovable [property] is excluded from the super-deduction? Or 2 nd meaning: that costs related to acquisition or construction of new commercial or second-hand commercial or industrial immovable [property] is not fully deductible the year incurred but should be depreciated and such depreciation allowances are eligible to the super-deduction?		
(iii) Lease payments		
2.1.20 What if equipment is used according to the terms of a leasing-type transaction?		
2.1.21 Are leasing instalments eligible for super-deduction under current wording of art. 9-3?		
2.1.22 Should they be?		
(iv) Alternative readings		
2.1.23 Please feel free to add any alternative readings you may have of relevant CCTB provisions and that has not yet been discussed		
B. Current expenditure		
2.2 R&D staff cost		
a. What is meant by R&D staff?		
2.2.1 Should eligibility be limited to staff directly-involved in R&D?		
2.2.2 In case the staff participates both in R&D and non R&D activities, should the text allow for proportional eligibility based on time spent (or other criteria)?		
2.2.3 How can researchers or scientists be defined? Should the text use black letter criteria (list diplomas (PhDs), qualifications...) or a more open definition?		
2.2.4 Are research technicians R&D staff?		
2.2.5 What about other employees (not "official researchers") which still have contributed to a patented invention?		
2.2.6 What about the managers of the business (e.g. running a research program)?		
2.2.7 What about other staff (secretariat, cleaning, etc...)? Can, in the alternative, their compensation be taken into account, proportionally, as other operating R&D expenses (cf. I-3 below)?		
b. What is meant by R&D staff cost?		
2.2.8 Wages, bonuses, benefits in kind?		
2.2.9 Social security contributions (compulsory and/or non-compulsory)?		
2.2.10 Employer's contribution to participation of employees in profits of the enterprise by means of profit-sharing plan, employee share-ownership?		
2.2.11 Can a Member State provide that compensation paid to holders of PhD will count more (e.g. double) for a limited period of time (in order to promote hiring of PhD holders)?		
2.2.2 Standardization expenses		
Based on your national tax background:		
2.2.1 Should expenses related to the establishment of technical standards concerning products of the business be eligible for the super-deduction (e.g. expenses incurred on participation of employees in official meetings of standardization bodies)?		
2.2.2 If yes, should it still be the case even if these employees are not scientists or research technicians?		
2.2.3 How should these expenses be assessed (e.g., as portion of employee compensation related to the time spent in connection with such meetings)?		
2.2.4 Should expenses related to technical monitoring/technological watch be taken into account?		
2.2.3 Patent related expenses		

■ Première partie – La fiscalité du grand marché

2.2.3.1 Are expenses linked to patents eligible? Please define NB: under current French tax law, expenses linked to the filing, the maintenance and the defence of patents incurred in France or in another State (IP consultant's fees, translation costs taxes...) are eligible to the R&D tax credit; insurance costs linked to patents are eligible within a threshold of K€ 60. However, under the Frascati criterion, R&D would typically <i>not</i> include administrative and legal work connected with patents, routine tests or data collection.		
2.2.4 Other operating expenses related to R&D		
2.2.4.1 Should such category be identified?		
2.2.4.2 Is a detailed list possible of expenses advisable?		
2.2.4.3 Is it appropriate to assess these expenses notionally by reference to other precisely defined eligible expenses (e.g. 15% of immovable [property] depreciation allowances, and/or 50% of eligible staff expenses)?		
2.2.4.4 Should fees paid to external consultants assisting the company to determine its R&D super deduction be eligible, and to what extent?		
C. Contracted Expenditure		
2.2.5 Subcontracting expenses		
2.2.5.1 What if R&D activity is outsourced? Currently in France payments to R&D service suppliers, public or private accredited the French Ministry of research, and located in UE or EEE, qualify as eligible expenses.		
2.2.5.2 Should there be a territorial limit to exclude payments to subcontractors outside EEE (which cannot invoke the freedom to provide services).		
2.2.5.3 Should there be other limits? Under current French law for instance, R&D costs invoiced by accredited private subcontractors can be retained within the limit of three times the total amount of all the other R&D eligible expenses incurred by the company; and such expenses can be retained by the company subcontracting R&D works within a yearly limit of M€ 12 or 10 and M€ 2 when the parties (i.e. ordering company and R&D supplier) are related companies.		
D. Reimbursed expenditure		
2.2.6 Treatment of public subsidies		
2.2.6.1 Should governmental and other State agencies subsidies/grants related to R&D eligible projects be deducted from eligible expenses of the year during which these expenses are incurred?		