



Neutral Citation: [2024] UKFTT 00349 (TC)

Case Number: TC09149

**FIRST-TIER TRIBUNAL
TAX CHAMBER**

Heard at Taylor House, London

Appeal reference: TC/2022/13745

CORPORATION TAX – research and development credit – whether the tests in the BEIS Guidelines had been met – whether evidence to support the claimed costs – appeal dismissed

Heard on 19 and 20 March 2024

Judgment date: 25 April 2024

Before

**TRIBUNAL JUDGE ANNE REDSTON
MR MICHAEL BELL**

Between

FLAME TREE PUBLISHING LIMITED

Appellant

and

**THE COMMISSIONERS FOR
HIS MAJESTY’S REVENUE AND CUSTOMS**

Respondents

Representation:

For the Appellant: Ms Rebecca Warwick, instructed by MCS Corporate Strategies Limited

For the Respondents: Mr Dave Lewis, litigator of HM Revenue and Customs’ Solicitor’s Office

DECISION

INTRODUCTION

1. Flame Tree Publishing (“FTP”) is, as its name indicates, a publishing company. On 30 June 2020, it filed an amended Corporation Tax (“CT”) return for the accounting period ended 30 June 2018. By the amendment it claimed an enhanced deduction of £266,644 in respect of expenditure on research and development (“R&D”), as the result of which its CT payable reduced by £50,662.
2. HMRC enquired into the amended return, and on 1 July 2022, issued a closure notice refusing the claim and requiring that FTP repay the £50,662. FTP appealed that decision, and subsequently notified its appeal to the Tribunal.
3. FTP had the burden of proving it had met the tests set out in the guidelines published by the Department for Business, Innovation and Skills (“the Guidelines”) so as to be entitled to the enhanced R&D relief.
4. Its claim had been made on the basis that it had carried out seven separate “projects”, each of which had met the requirements in the Guidelines. However, FTP changed its position in the hearing and instead put its case on the basis that there had been only a single composite project.
5. Mr Lewis, on behalf of HMRC, did not object to that change of position, but submitted that, on either basis, FTP had not met the tests in the Guidelines, and that there was no evidential basis for the costs which had been claimed. For the reasons explained in the main body of this decision, we agreed with Mr Lewis. We therefore dismissed FTP’s appeal and upheld HMRC’s decision.

THE REPRESENTATIVES

6. FTP’s amended CT return was filed by MCS Corporate Strategies Ltd (“MCS”), a company of which Mr Greville Warwick (“Mr Warwick”) was the managing director. Mr Warwick also had conduct of the case during HMRC’s enquiry. His son, Mr Julian Warwick, is also a director of MCS, and was copied on much (if not all) the correspondence between his father and HMRC.
7. Mr Warwick had informed the Tribunal and HMRC that he would represent FTP. However, at the inception of the hearing, Mr Julian Warwick explained that his father could not attend because of a serious illness. We asked if he was requesting an adjournment, but he said FTP wanted to go ahead, and that he and his wife Ms Rebecca Warwick would put FTP’s case.
8. In the event it was Ms Warwick who took on the role of representative at the hearing. She had no previous Tribunal experience but adapted rapidly and competently to what was required. The Tribunal took her inexperience into account in the way we managed the proceedings, and Mr Lewis also modified his approach. The Tribunal is grateful to both Ms Warwick and Mr Lewis for enabling the case to proceed smoothly.

THE EVIDENCE

9. The Tribunal was provided with a Bundle of 257 pages, which included the correspondence between the parties, as well as FTP’s CT return and its amended return. In addition, the following individuals provided witness evidence:

- (1) Ms Emma Parkinson, the HMRC Officer who issued the decision which was under appeal. Ms Parkinson was unable to attend the hearing, and her witness statement was adopted by Ms Suzanne Gulwell, the manager of the team in which Ms Parkinson worked. Ms Gulwell gave evidence-in-chief led by Mr Lewis; was cross-examined by Ms Warwick and re-examined by Mr Lewis. We found her to be an entirely credible and straightforward witness.

- (2) Mr Nick Wells, FTP’s founder and owner, provided a witness statement; gave evidence-in-chief led by Ms Warwick; was cross-examined by Mr Lewis; answered questions from the Tribunal and was re-examined by Ms Warwick. There were significant differences between his oral evidence and that in his witness statement, in particular in relation to what “advance in

science or technology” FTP said had been made. We consider and discuss this change of position at §53.ff. Despite this, and despite the fact that Mr Wells often gave lengthy and discursive responses to questions, we found him to be an honest witness who was doing his best to explain to the Tribunal what had happened at the relevant time.

(3) Mr Chris Herbert, FTP’s Production Manager, provided a witness statement; gave evidence-in-chief led by Ms Warwick; was cross-examined by Mr Lewis; answered questions from the Tribunal and re-examined by Ms Warwick. We found him to be an honest and straightforward witness.

10. The extensive new evidence given for the first time by Mr Wells from the witness box included references to a company called “Image File”. There was no mention of this company in the correspondence between the parties; in the witness statements; or elsewhere in the Bundle, so the Tribunal does not know if its name is “Image File Ltd”, “Image file Ltd” or “ImageFile Ltd”. For the purposes of this judgment, we have called it “Image File”.

11. In oral evidence Mr Wells also referred for the first time to “Ogg” technology, which prompted Mr Lewis to hand up a related Wikipedia definition. Mr Wells agreed it was accurate and we accepted it.

12. On the basis of the evidence summarised above, we make the findings of fact in this decision.

FACTS NOT IN DISPUTE

13. We begin with facts which are not in dispute about FTP, Mr Wells and Mr Herbert, followed by background facts about the work carried out during the relevant period; the making of the claim and the HMRC enquiry.

FTP’s business, Mr Wells and Mr Herbert

14. FTP is a publishing company set up by Mr Wells in 1992; he remains its owner and managing director. He had graduated in English Literature and then worked for Collins (later Harper Collins), where he became a managing director in his thirties. He ascribed this early success to being “systems and process orientated”.

15. He was conversant with early computer systems such as Amstrad, but has no formal training in IT or in computing. When asked by the Tribunal about his computing knowledge at the relevant time, he said he “read a lot” and also went to trade shows and conferences, including conferences with Google employees. He described his own professional competence as being that of “a business owner” who was competent in many fields. including strategic IT and networking with clients and customers; he also understands the “processes and the costs” involved in the publishing business.

16. Mr Herbert graduated in physics and maths, and joined FTP in the mid-2000s to work in its production department. He is responsible for maintaining the company’s digital archives and its server networks. He has no formal training or experience in computer programming or software development, and no IT qualifications.

The work carried out

17. FTP originally published books in bound paper form including encyclopaedias and music guides, and the texts of those publications were archived on CDs and DVDs. With the advent of the internet, the market for those books declined, and FTP began to sell smaller and more affordable publications.

18. In 2016, two newly emerging technologies – cloud computing and quadcore processors – became more accessible. In September 2017, Mr Wells attended the Frankfurt Book Fair, and identified that customers wanted access to material in FTP’s previously published books, but in accessible digital form. On his return, he discussed this possibility with Mr Herbert and with FTP’s website developer, Image File.

19. After considerable work, the books in FTP’s digital archive were made available to customers as searchable resources which had been “curated” or organised intelligently by FTP’s staff. Mr Wells gave unchallenged evidence that this process began after the Frankfurt Book Fair, and ended some two years later, in the middle of 2019.

The CT return and the claim

20. On 8 March 2019, FTP’s accountant and auditor, MHA McIntyre Hudson LLP, filed FTP’s CT return for the accounting period ended 30 June 2018. The return showed profits of £344,994 and CT due of £65,548.96. It did not contain any reference to R&D.

21. Mr Wells was subsequently referred to MCS by a banking contact, and after discussions with Mr Warwick, instructed that company to file an amended CT return on behalf of FTP, claiming R&D expenditure of £205,111, made up as follows:

Description	Expenditure
Employee costs	£147,292
Subcontracted work	£5,280
Other costs	£49,429
Utilities	£739
Software	£2,377
Total	£205,111

22. That expenditure formed the basis for the R&D enhanced credit of £266,644 (£205,111 x 130%).

23. A document filed with the amended claim said that the R&D had arisen from the following:

- (1) Hybrid Server Archive Project.
- (2) Digital Tools Project.
- (3) Digitalisation of Archive Project.
- (4) Music Information Database.
- (5) Other projects.

24. On 18 May 2021, HMRC opened an enquiry into the amendment, and sent FTP a list of questions. These included requests for information as to why the projects were considered to meet various specified requirements in the Guidelines; copies of project documentation and of contracts with third parties relating to the projects, together with information about costs and about the “other projects”.

25. On 17 June 2021, Mr Warwick gave details of the four named projects. He also provided the following information:

- (1) In relation to project documents, he said “there are no specific documents for reference. Email correspondence is general and does not refer to any individual items or issues. The R&D was generated internally and carried out as an ongoing activity throughout the period”.
- (2) In relation to staff costs, Mr Warwick said these had been apportioned by reference to the estimated time spent on R&D for each person as a percentage of their employment costs (being salaries, employer National Insurance Contributions and employer pension contributions). The time had been estimated because no time recording system was in place. An attached schedule showed that the claim included a percentage of FTP’s employment costs for 12 of the 18

individuals employed by FTP. Mr Wells confirmed in oral evidence that these time allocations were the result of discussions between him and Mr Warwick. Overall the claimed R&D staff costs amounted to 24.15% of total staff costs.

(3) In relation to the “other costs” of £49,429, Mr Warwick said that £46,231 had been calculated as 1.5% of FTP’s total cost of sales, and that the balance was 24.15% of travel and entertaining. There was no further information as to the basis for the 1.5%, but the staff costs percentage had been used for travel and entertaining. The figures for utilities and software were similarly claimed on the basis of the 24.15% figure as applied to FTP’s annual expenditure on those items.

(4) In relation to contracts with third parties, Mr Warwick stated that “no contracts were entered into in relation to R&D activities”, but that subcontractor payments to a Mr D’Auria had been identified in the claim. Mr D’Auria was a freelance consulting editor based in New York, who worked for FTP on a regular basis. In the accounting period for which the claim was made, FTP paid Mr D’Auria a monthly retainer, plus additional amounts for “story evaluation” and “editorial fee”. The total paid to him in the year was £11,604.28, and of this 70% was included in the claim.

(5) Mr Warwick identified the “other projects” as being:

- (a) online chord and scales database and audio system;
- (b) e-commerce database and payment system; and
- (c) foiled notebooks project.

26. On 21 August 2021, Mr Warwick provided HMRC with the job titles of the individuals whose time had been included in the claim, as follows:

- (1) Mr Wells’ job title was “publisher, creative director” (50%).
- (2) Mr Herbert’s job title was “production and digital manager” (30%).
- (3) Mr Bodlam’s job title was “managing director” (15%).
- (4) One individual had the title “art director” (30%).
- (5) Two had the job title “senior project editor” (40% for one; 30% for the other).
- (6) Three had the job title “project editor” (20% for each).
- (7) One had the job title “senior designer” and another “designer” (20% for each).
- (8) One had the job title “publishing assistant” (20%).

27. On 15 November 2021, Mr Warwick provided HMRC with a document written by Mr Wells, which included the following information about Mr D’Auria:

“Don D’Auria is a freelancer used to assist in the planning and research of projects. His work in the period included participation in meetings and phone calls giving advice on elements such as text integrity, the assessment of which texts to digitise, advice on essential updates, the commission of additional text as required and reading thousands of worlds of text for evaluation.”

28. Correspondence between the parties continued. There were also a number of telephone conversations between HMRC and MCS, as well as two video meetings. Mr Wells was copied on most of the letters and attended one of the meetings.

29. In the course of HMRC’s enquiry, the Officer in question changed: in January 2022, Ms Francis handed over to Mr Gladwin, while Ms Parkinson became involved in March 2022, initially working with Mr Gladwin and then taking overall responsibility. The Officers referred various technical matters

to their inhouse Chief Digital and Information Officer Group (“CDIO”); this is a team of specialists who respond to questions from front-line HMRC staff about matters such as software and IT.

30. At a meeting held on 10 March 2022, Mr Gladwin asked Mr Warwick about the list of staff said to be involved in the R&D for which the claim had been made, and specifically “if he could have details of their expertise in software, along with a brief overview of the R&D each staff member carried out with a rationale behind the time allocation”. Mr Warwick said he would discuss this with Mr Wells. On 5 April 2022, Mr Warwick provided HMRC with a document written by Mr Wells which included a response to that question. Mr Wells said:

“As a small company every senior role balances the specific nature of their job title with their impact on the overall business, and an understanding of our place in various communities and markets. For instance, the Art Director’s role is to create designs which lead the reader through a logical information path, whether this is on the page, or on the screen. UX design is integral to the success of the Digital Tools Project. Similarly other senior roles, such as production and editorial bring their publishing judgements to bear on whatever project we create for our readers and consumers. Freelancers are always required for editorial text tasks. We have published a wide range of books covering art, music, history, religion, recipes, lifestyle, reference and fiction, so we acquire both specific subject knowledge and third parties to proofread, copy edit and adapt legacy text.”

31. On 24 May 2022, Mr Gladwin informed MCS that his preliminary view on the basis of the material so far provided was that the claim should be refused. Ms Parkinson took over in June 2022 and confirmed she agreed with Mr Gladwin. On 1 July 2022, she issued a closure notice and an amendment to FTP’s CT return, increasing the CT payable by £50,662.

32. On 19 July 2022, Mr Warwick wrote to HMRC appealing that decision. He said HMRC had “failed properly to understand the several documented and amply demonstrated projects of research and development” and had also failed to understand how FTP had complied with the legal requirements. He asked for a statutory review, but on 10 November 2022, the review officer upheld Ms Parkinson’s decision.

33. On 29 November 2022, MCS notified FTP’s appeal to the Tribunal. The Notice of Appeal included the following:

“Grounds for an appeal are based on the rejection by HMRC of each of the projects submitted for R&D tax relief as given in the conclusion letter namely: Digital Tools; Digitalisation of Archive; Hybrid Server Archive; Musik Information Database; Online Chord & Scales Database & Audio: E-commerce and Foiled Notebooks Projects...”

THE LEGISLATION

34. The legislation is cited only so far as relevant to FTP’s appeal. Most of the relevant primary provisions are contained within Part 13 of CTA 2009. Within that Part, s 1044 is headed “additional deduction in calculating profits of trade”, and it reads:

- “(1) A company is entitled to corporation tax relief for an accounting period if it meets each of conditions A to D.
- (2) Condition A is that the company is a small or medium-sized enterprise in the period.
- (3) [repealed]
- (4) Condition C is that the company carries on a trade in the period.
- (5) Condition D is that the company has qualifying Chapter 2 expenditure which is allowable as a deduction in calculating for corporation tax purposes the profits of the trade for the period.

- (6) For the company to obtain the relief it must make a claim...
- (7) The relief is an additional deduction in calculating the profits of the trade for the period.
- (8) The amount of the additional deduction is 130% of the qualifying Chapter 2 expenditure.
- (9) ...
- (10) For the meaning of qualifying Chapter 2 expenditure see section 1051."

35. Section 1051 is headed "qualifying Chapter 2 expenditure" and reads:

- "For the purposes of this Part a company's "qualifying Chapter 2 expenditure" means
- (a) its qualifying expenditure on in-house direct research and development (see section 1052), and
 - (b) its qualifying expenditure on contracted out research and development (see section 1053)."

36. Section 1052 is headed "qualifying expenditure on in-house direct R&D" and reads:

- "(1) A company's "qualifying expenditure on in-house direct research and development" means expenditure incurred by it in relation to which each of conditions A, B, D and E is met.
- (2) Condition A is that the expenditure is:
 - (a) incurred on staffing costs (see section 1123),
 - (b) incurred on software, data licences, cloud computing services or consumable items (see section 1125),
 - (c) qualifying expenditure on externally provided workers (see section 1127)...
 - (3) Condition B is that the expenditure is attributable to relevant research and development undertaken by the company itself.
 - (4) [repealed]
 - (5) Condition D is that the expenditure is not incurred by the company in carrying on activities which are contracted out to the company by any person.
 - (6) Condition E is that the expenditure is not subsidised (see section 1138).
 - (7) See sections 1124, 1126 to 1126B and 1132 for provision about when expenditure within subsection (2)(a), (b) or (c) is attributable to relevant research and development."

37. Section 1053 is headed "Qualifying expenditure on contracted out R&D" and reads:

- "(1) A company's "qualifying expenditure on contracted out research and development" means expenditure
- (a) which is incurred by it in making the qualifying element of a sub-contractor payment (see sections 1134 to 1136), and
 - (b) in relation to which each of conditions A, C and D is met.
- (2) Condition A is that the expenditure is attributable to relevant research and development undertaken on behalf of the company.
 - (3) [repealed]
 - (4) Condition C is that the expenditure is not incurred by the company in carrying on activities which are contracted out to the company by any person.
 - (5) Condition D is that the expenditure is not subsidised (see section 1138).

(6) See sections 1124, 1126 [to 1126B] and 1132 for provision about when particular kinds of expenditure are attributable to relevant research and development.”

38. CTA 2010, s 1138 is expressed to “have effect for the purposes of the provisions of the Corporation Tax Acts which apply this section”, and goes on to provide that “research and development” means activities which are so defined “as a result of regulations” made under ITA s 1006. That section in turn provides that the Treasury may “specify activities” which are to be treated as R&D and activities which are not to be so treated, and that those regulations may be made “by reference to guidelines issued by the Secretary of State”.

39. The Research and Development (Prescribed Activities) Regulations were made under the *vires* given by ITA s 1006, and Reg 2 of those Regulations reads:

“For the purposes of section 837A of the Income and Corporation Taxes Act 1988

(a) activities that fall to be treated as research and development in accordance with the Guidelines on the Meaning of Research and Development for Tax Purposes issued by the Secretary of State for Trade and Industry on 5 March 2004, are research and development; and

(b) activities that do not fall to be treated as such in accordance with those guidelines are not research and development.”

40. The reference to ICTA s 837A is to the earlier version of ITA s 1006, but it was common ground that the Regulations should be read as if they referred to the current version of the statutory provision.

41. It is clear from the above that the Guidelines have the force of law as being tertiary legislation made under the above provisions.

THE GUIDELINES

42. The relevant parts of the Guidelines are attached as an Appendix to this decision. Key principles are set out below, with cross-references to the relevant paragraph of the Guidelines given in brackets. Emboldened terms are defined within the Guidelines.

(1) R&D for tax purposes takes place when a **project** seeks to achieve an **advance in science or technology** through the resolution of **scientific or technological uncertainty** (paras 3 and 4).

(2) A “**project**” consists of a number of activities conducted to a method or plans in order to achieve an advance in science or technology. It is important to get the boundaries of the project correct. It should encompass all the activities that collectively serve to resolve the scientific or technological uncertainty associated with achieving the advance, so it could include a number of different sub-projects. A project may itself be part of a larger commercial project, but that does not make the parts of the commercial project that do not address scientific or technological uncertainty into R&D (para 19).

(3) An “**advance in science or technology**” is an advance in overall knowledge or capability in a field of science or technology (not a company’s own state of knowledge or capability alone). It includes:

(a) the adaptation of knowledge or capability from another field of science or technology in order to make such an advance where this adaptation was not readily deducible (para 6); and

(b) making an **appreciable improvement** to an existing process, material, device, product or service through scientific or technological changes (para 9(c)) but it does not include the routine analysis, copying or adaptation of an existing product, process, service or material (para 12).

(4) **Scientific or technological uncertainty** exists when knowledge of whether something is scientifically possible or technologically feasible, or how to achieve it in practice, is not readily available or deducible by a competent professional working in the field. Uncertainties that can be readily resolved by a competent professional working in the field are not scientific or technological uncertainties. Similarly, improvements, optimisations and fine-tuning which do not materially affect the underlying science or technology do not constitute work to resolve scientific or technological uncertainty (paras 13 and 14).

(5) An “**appreciable improvement**” means to change or adapt the scientific or technological characteristics of something to the point where it is “better” than the original. The improvement should be more than a minor or routine upgrading, and should represent something that would generally be acknowledged by a competent professional working in the field as a genuine and non-trivial improvement. Improvements arising from the adaptation of knowledge or capability from another field of science or technology are appreciable improvements if they would generally be acknowledged by a competent professional working in the field as a genuine and non-trivial improvement (para 23).

(6) Improvements that arise from taking existing science or technology and deploying it in a new context (e.g. a different trade) with only minor or routine changes are not appreciable improvements. A process, material, device, product or service will not be appreciably improved if it simply brings a company into line with **overall knowledge or capability** in science or technology, even though it may be completely new to the company or the company’s trade (para 24).

(7) The term “**overall knowledge or capability**” in a field of science or technology means the knowledge or capability in the field that is publicly available or is readily deducible from the publicly available knowledge or capability by a competent professional working in the field. However, the routine analysis, copying or adaptation of an existing process, material, device, product or service will not advance overall knowledge or capability, even though it may be completely new to the company or the company’s trade (paras 20 and 22).

(8) R&D begins when work to resolve the scientific or technological uncertainty starts, and ends when that uncertainty is resolved or work to resolve it ceases. This means that work to identify the requirements for the process, material, device, product or service, where no scientific or technological questions are at issue, is not R&D. R&D ends when knowledge is codified in a form usable by a competent professional working in the field, or when a prototype or pilot plant with all the functional characteristics of the final process, material, device, product or service is produced (paras 33 and 34).

PURPOSIVE INTERPRETATION?

43. In his skeleton argument provided before the hearing, Mr Warwick said:

“Clearly, guidelines are not rigid instructions, and a measure of interpretation is implied in referring to guidelines for the purpose of seeking compliance and conformity with the incentives to undertake Research and Development clearly as intended by Parliament.”

44. Mr Lewis disagreed. He referred to *Gripple v HMRC* [2010] EWHC 1609 (Ch) (“*Gripple*”) at [12], where Henderson J (as he then was) had described the earlier version of the Guidelines as follows:

“... the provisions form a detailed and meticulously drafted code, with a series of defined terms and composite expressions, and a large number of carefully delineated conditions, all of which have to be satisfied if the relief is to be available...a detailed and prescriptive code of this nature leaves little room for a purposive construction...”

45. Mr Lewis submitted that the same was true of the current version of the Guidelines, pointing out that in *Hadee v HMRC* [2020] UKFTT 0497 (TC), a decision of Judge Dean and Ms Christian, the FTT had similarly held that “a narrow approach was required” and that “the Guidelines require a strict interpretation to achieve their purpose”.

46. In her Reply, Ms Warwick conceded this point, in our view rightly. We agree with the approach taken in *Hadee*, which was consistent with the view taken by Henderson J in *Gripple*.

ONE PROJECT OR MANY PROJECTS?

47. As is clear from our findings of fact set out above, FTP’s claim stated that there were seven projects, of which four were major and three were minor; Mr Warwick then gave further details in subsequent correspondence. Those projects were:

- (1) Hybrid Server Archive Project.
- (2) Digital Tools Project.
- (3) Digitalisation of Archive Project.
- (4) Music Information Database.
- (5) Other projects:
 - (a) Online chord and scales database and audio system;
 - (b) e-commerce database and payment system; and
 - (c) foiled notebooks project.

48. Mr Well’s witness statement similarly said that FTP had “identified four major projects” but he described those projects as:

- (1) Plan the Digitalisation of text and images.
- (2) Create a Server Archive with Cloud access.
- (3) Create a set of user-facing Digital Tools for users and researchers.
- (4) Develop a Hybrid workflow for internal use and external access.

49. Mr Wells then took an entirely different position when giving oral evidence. He said FTP had “developed a single solution” and spoke of his “regret” that the company had “boxed ourselves into discussing it” as separate projects. He described FTP as having created a “process” which could have been marketed to competitors, and described it as a “Software as a Service” (“SaaS”).

50. Ms Warwick relied on Mr Wells’ new evidence to submit that FTP had combined various elements to create a “searchable interactive resource allowing a curated approach” to material held by FTP; that this was a SaaS which constituted “a novel advance in technology” and “something new” for the publishing sector.

51. In other words, FTP’s case at the hearing was that it had carried out a single project and not seven specific projects.

52. Mr Lewis did not challenge Mr Wells’ new evidence, but pointed out that it marked a very significant shift in the company’s position. In particular, he did not ask the Tribunal to make findings about whether FTP had acted either carelessly or deliberately in filing its claim, and we agree he was right not to do so: those matters were not before us to decide.

Discussion

53. In deciding whether there was a single project or multiple separate projects, we began by noting that the claim in FTP’s amended return was made on the basis that there were four main projects and

“other projects”, with the latter subsequently being identified in Mr Warwick’s letter of 17 June 2021. That remained FTP’s position throughout HMRC’s enquiry. The grounds of appeal filed with the Tribunal were similarly “based on the rejection by HMRC of each of the projects submitted for R&D tax relief”, followed by the names of the seven specific projects.

54. However, we also took into account the following:

(1) It was now FTP’s case, as submitted by Ms Warwick and supported by oral evidence from Mr Wells, that there had been only one project; to make the books in FTP’s digital archive available in the market place as searchable resources which had been “curated” or organised intelligently by FTP’s staff.

(2) When asked about the start and end date(s) of the R&D, Mr Wells said that the beginning was shortly after the 2017 Frankfurt Book Fair and the end was mid-2019. FTP never identified a start or end point for any of the seven separate projects,

(3) The claim was based on costings which had been identified by type, namely employee costs, subcontracted work, other costs, utilities and software. These had been arrived at by apportionment of R&D as a percentage of FTP’s relevant categories of expenditure. No costs were ever allocated to any of the seven separately identified projects.

(4) Although the claim was made on the basis that there were seven projects, there are indications in the correspondence that this basis was difficult to justify or explain:

(a) On 17 June 2021, Mr Warwick told HMRC that “there are no specific documents” about any of the projects, but only emails, which were “general” and did not “refer to any individual items or issues”.

(b) In the same letter, Mr Warwick said that the R&D was “carried out as an ongoing activity throughout the period”.

(c) On 5 April 2022, Mr Wells said this (our emphasis): “Some of the work carried out the Hybrid Server, Digitization and Digital Tools projects *overlapped* because the approach to the hardware and software solutions *was integrated* where possible to optimize cost and time”.

55. Taking into account all the above, we find that FTP undertook a single project with the purpose of making the books in FTP’s digital archive available in the market place as curated and searchable resources. In the rest of our decision, we call this “the Project”.

56. Mr Wells sought to explain the change of position by saying that FTP had allowed itself to be “boxed into a corner”, and that HMRC had also “failed to understand” the true position because the Officers had changed several times, and staff working in CDIO had also become involved. We reject these explanations, and find that none of the responsibility rests with HMRC. It was FTP which made its claim on the basis that there were multiple separate projects, and FTP maintained that position until the very day of the hearing. The company was not “boxed into a corner”; the Officers did not fail to understand the information provided to them, and it was entirely appropriate for the Officers to consult with their in-house CDIO team.

FINDINGS OF FACT ABOUT THE PROJECT

57. On the basis of the evidence in the Bundle and the witness evidence of Mr Wells and Mr Herbert, we make the following findings of fact about the Project.

(1) The text of FTP’s historic archives was converted into a machine-readable form.

(2) The data was also ranked and organised; this included developing a series of questions and “second guessing” the queries which users would ask; this work was carried out by Image File.

- (3) A search process was developed to allow users to access the material.
- (4) The entirety of the programming, computing, and the building of the customised search engine was carried out by Image File, and no part of those costs are included in the claim.
- (5) Image File's work included the use of:
 - (a) Quadcore microchips, which enabled large amounts of data to be processed, synchronised and stored without interrupting FTP's background tasks or other activities.
 - (b) Cloud computing, which allowed digitised text and audio files to be stored and made available to customers.
 - (c) "Ogg" technology, which enabled the sounds of chords to be incorporated as part of the online music publications. Ogg is an open container format designed to allow for the efficient streaming and manipulation of high-quality digital multimedia; it is also free and unrestricted by software patents. When Mr Wells was asked whether Ogg had previously been used in a similar way by other businesses, he said "probably", but that he didn't know for sure.
- (6) The resulting music files had to be deliverable to customers on different types of device using operating systems developed by Apple and Microsoft, among others. Mr Wells said Google "must have already had" that capability, but FTP could not access it, and Image File therefore used "a lot of trial and error" working with IT specialists in India to resolve this delivery issue.
- (7) FTP's material was reorganised or "curated" by its editorial staff, so users would not simply obtain a "data dump" outcome such as would be delivered by search engines such as Google.
- (8) Mr Wells was Image File's link person at FTP. He stayed in touch with Image File's progress, as well as with those FTP's employees who were working on the transition to the new approach.
- (9) Mr Herbert's role was to assess each of the archived publications so Image File could be informed of their nature, size and the number of words and/or graphics contained in each. If an archive had become corrupted, Mr Herbert reuploaded it into a format which could be transferred to Image File; he also had to change some of the file names to enable them to be uploaded.
- (10) However, Mr Herbert had no direct interaction with Image File, although he might have attended one or more meetings as an observer. When Image File provided FTP with the results of their work, Mr Herbert did not have any involvement in reviewing that output, but he did transfer newly formatted material onto servers and the cloud. He had "no recollection" of the amount of time he had spent on the Project.
- (11) FTP did not register any patents as the result of the Project.
- (12) The output of the Project was that FTP had "modern searchable information" rather than "old fashioned products" which they could no longer sell into the marketplace.
- (13) Other companies have historic data which they would like to make commercially available in the market place, and FTP might have been able to provide a service of customising that data using a similar approach to that taken in the Project. However, no such company was identified as a potential customer. The reason given for this was that FTP's business was publishing; it was not a "database creator" or a provider of SaaS. As a result, FTP were not able to demonstrate that they had created a saleable SaaS.

ADVANCE IN SCIENCE OR TECHNOLOGY?

58. It was FTP's case that the Project was an "advance in science and technology" as defined by the Guidelines.

59. Mr Lewis submitted that FTP had not met the burden of showing that any part of the Project was "an advance in overall knowledge or capability in a field of science or technology". In particular, FTP had not shown that any of its activities had resolved a "scientific or technological uncertainty" which could not have been "readily resolved by a competent professional working in the field", or that it had made "an appreciable improvement to an existing process, material, device, product or service through scientific or technological changes", which represented "something that would generally be acknowledged by a competent professional working in the field as a genuine and non-trivial improvement". In his submission, FTP had shown only that the technology used in the Project was new to the company, but it was clear from the Guidelines that this was insufficient, see paras 22 and 24.

60. Ms Warwick accepted that to meet the Guidelines, FTP had to prove it had resolved uncertainties which could not have been resolved by a competent professional, or that it had made an improvement which a competent professional would have acknowledged as being "non-trivial". We therefore next consider what is meant by a "competent professional" and whether FTP had satisfied that requirements.

FTP's view of "competent professional"

61. Mr Warwick set out FTP's position on "competent professional" in his response to HMRC dated 17 June 2021. He said:

"The company is a specialist and wide spectrum musical publisher with a staff of competent people with long-time professional experience and expertise in musical matters, as set out within the projects hereto. Existing competence covered large parts of the tacit knowledge required to contemplate propose and undertake new and technically ambitious projects for a sophisticated and knowledgeable user base of music scholars and specialist publishers. Recognising the myriad unknowns to be expected from such a new proposal, it was accepted that areas of knowledge fell outside of existing competence and could not with reasonable certainty be deducible by the competent professionals, or other known available sources of such professional competence."

62. In his subsequent letter of 22 August 2021, as a prelude to the list of job titles and percentages (see §26.) he said:

"Key company personnel are knowledgeable about the relevant scientific and technological principles involved as defined in [HMRC's manual]. Each following member of staff possessed a level of competence about the science or technology issues they were dealing with as part of their work."

63. On 15 November 2021, he said:

"Nick Wells has over twenty-five years' experience in the publishing industry. His knowledge covers the technology and areas indicated as contributing to research and development. He provided and continues to provide the key leadership research and development role at Flame Tree Publishing Ltd."

64. At the hearing, Ms Warwick said that Mr Wells was a competent professional with computer expertise who was capable of assessing the relevant tests set out in the Guidelines, and that Mr Herbert was "a competent professional in digital production and publishing – with a focus on digital formats, extraction and data structure".

HMRC’s view of “competent professional”

65. Mr Lewis submitted that the Guidelines required a claimant to provide evidence from a “competent professional”. He referred to *AHK v HMRC* [2020] UKFTT 0232 (TC) (“*AHK*”), a decision of Judge Bedenham and Mr Adrain, where the Tribunal said at [29]:

“In order to satisfy the burden of proof, the Appellant would have needed to provide witnesses who could have testified to the facts necessary for me to conclude that the criteria set out in the Guidelines were satisfied and who could then have been subjected to cross-examination by the Respondents. In the absence of that, I am unable to conclude that, on the balance of probabilities, the expenditure in question satisfied the relevant criteria.”

66. In his skeleton argument, he said that the term “competent professional” is not defined, but that:

“its natural meaning is self-explanatory, and that it goes beyond having an intelligent interest in the field...to be accepted as a competent professional, an individual would need to be able to demonstrate appropriate qualifications, experience and up-to-date knowledge of the relevant scientific and technological principles involved.”

67. He submitted that neither Mr Wells nor Mr Herbert was a competent professional. FTP’s claim related to the digitisation of FTP’s archive and making that archive available to users; in that context a competent professional would have up-to-date software, programming and computing skills and knowledge. Instead, Mr Wells was a publisher with some familiarity with computing, but no IT qualifications; he was plainly not a professional in that field. Mr Herbert was familiar with using computers but not a professional in the fields of programming or software development. As a result, said Mr Lewis, FTP could not show that these key provisions in the Guidelines were met.

The Tribunal’s view

68. We have no hesitation in agreeing with HMRC, for the reasons given by Mr Lewis, and for the following additional reasons.

- (1) Mr Wells described his own professional competence as being that of “a business owner” who was competent in many fields including strategic IT and networking with clients and customers, and that he also understood the “processes and the costs” involved in the publishing business. When asked by the Tribunal about his computing knowledge at the relevant time, he said he “read a lot” and he went to trade shows and conferences, including conferences with Google employees. In other words, he was a competent professional in the field of publishing who had some knowledge of IT and computing, but he was not a competent professional in software, programming or computing.
- (2) Mr Wells also said that Ogg had “probably” been used in a similar way before the Project was launched, but that he didn’t know whether or not that was the position, and that Google “must have already had” the capability to deliver online information to users on different devices. A competent professional in the relevant field could reasonably have been expected to be able to give definitive evidence on both points.
- (3) Mr Herbert is a competent professional in digital archiving, see §57.(8), but he has no IT or software qualifications and no software or programming skills. He too is not a competent professional in any of those fields.
- (4) FTP’s claim included the time of another 10 individuals. Mr Wells said their roles had been to “bring their publishing judgements to bear on whatever project we create for our readers and consumers” and to “create designs”. HMRC asked for evidence of their expertise in software, but FTP did not respond (see §30.). Moreover, none of these individuals gave evidence. We find that FTP failed to show that any of these individuals were competent professionals in the fields of software, programming or computing.

(5) Mr D'Auria's time was also included in the claim. He had advised FTP on "text integrity, the assessment of which texts to digitise, advice on essential updates, the commission of additional text as required and reading thousands of worlds of text for evaluation". The tasks he performed therefore related to the identification and preparation of material to be digitised, and we find that he too was not a "competent professional" with expertise in software, programming or computing.

69. It follows from the above that FTP has failed to show that the Project had either (a) resolved uncertainties which could not have been resolved by a competent professional or (b) made an improvement which a competent professional would have acknowledged as being "non-trivial". As Mr Lewis said, its claim must therefore fail.

THE COSTS

70. Mr Lewis submitted that FTP's appeal should also be refused for the further reason that FTP had not proved that the costs claimed related to R&D (even if it were to be accepted that all or part of the Project had met the Guidelines).

71. He referred to *AHK* at [66], where the Tribunal had said that, to succeed in an appeal, an appellant needs to prove "what costs included in its R&D claim related to R&D activities" and FTP had not done so. He submitted that it was not credible that Mr Wells spent 50% of his time on the Project, and that there was also no evidential basis for the other costs claimed.

72. FTP's position was that employee costs had been claimed based on a reasonable apportionment of the time of those who had worked on the Project, and the other costs had been claimed using an appropriate apportionment methodology.

The Tribunal's view on the costs

73. We agree with Mr Lewis that there is no evidential basis for the quantum of any of the employee costs claimed, for the following reasons:

(1) There was no time recording system in place; instead the time allocations were the result of discussions between Mr Wells and Mr Warwick. However, Mr Warwick was not involved in the Project and so could not have provided any information about the time spent by the employees, and under cross-examination, Mr Wells could not explain how these percentages had been derived.

(2) Although Mr Wells had been involved in the Project, we agree with Mr Lewis that given his wide responsibilities for FTP's business, it is not credible that he spent 50% of his time on the Project.

(3) Mr Herbert also worked on the Project, but his time, like that of other employees, had been arrived at following discussions between Mr Wells and Mr Warwick. Mr Herbert himself had "no recollection" of the amount of time he had spent.

(4) Mr Wells told HMRC that the Art Director's role was "to create designs which lead the reader through a logical information path, whether this is on the page, or on the screen", but did not give any explanation as to why FTP had claimed that the Art Director had spent 30% of his or her time on the Project.

(5) In relation to those in "other senior roles such as production and editorial", Mr Wells said they brought "their publishing judgements to bear on whatever project we create for our readers and consumers". That falls far short of evidencing the time claimed for specific individuals, which ranged from 40% for the "senior project editor" to 20% for senior designers and senior project editors.

(6) There was no information at all about the work carried out by the publishing assistant or the designer, 20% of whose time had been claimed.

74. FTP also claimed £5,280 of subcontractor payments. This was 70% of the sums paid to Mr D'Auria in the period, consisting of a monthly retainer, plus additional amounts for "story evaluation" and an "editorial fee". There was no explanation as to how the 70% figure had been arrived at or why FTP had included a percentage of payments made for story evaluation or editorial work.

75. The utilities, software and travel and subsistence were all claimed using the 24.15% used for employee costs, which we have already found to lack evidential support. FTP also claimed 1.5% of its cost of sales, and no explanation was provided for that percentage.

76. We thus refuse FTP's appeal for the additional reason that it has failed to prove that the sums claimed were spent on the Project.

OTHER MATTERS

77. Those findings are sufficient to decide this case. We conclude by briefly covering three other points: the separate projects; the role of Image File, and the claim made by FTP in the following tax year.

The separate projects

78. FTP's claim was made on the basis that it had carried out seven different projects. For the reasons explained earlier in this decision, we have found that there was only a single Project.

79. For completeness we confirm that had we decided that there were seven separate projects, we would also have refused the appeal. There was no evidence from a competent professional relating to any of those projects; there was no evidential basis for the costs claimed, and FTP had also failed to provide evidence as to how the claimed costs related to each the separate projects.

The role of Image File

80. It was not in dispute that the programming, computing, building of the customised search engine and the use of Ogg were all carried out by Image File. We had no evidence from Image File and so were unable to assess whether that work would have met the tests in the Guidelines.

81. There are in any event other insurmountable obstacles which prevent us from taking into account the role played by Image File in the Project:

(1) One of the conditions for R&D relief is that the company "must make a claim" see CTA s 1004, but the claim filed by FTP did not include any costs paid to Image File.

(2) FTP's claim was made under CTA s 1052 as being for "in-house direct research and development". Claims under that section cannot include "expenditure...incurred by the company in carrying on activities which are contracted out to the company by any person", see Condition D of that section. The claim made by FTP thus could not include work contracted out to Image File.

(3) Claims for contracted out R&D can be made under CTA s 1053, but that section contains other conditions and requirements.

82. For all those reasons, we were unable to consider whether the work carried out by Image File was R&D within the meaning of the Guidelines. We could only have done so had FTP had made an entirely different claim under CTA s 1053, supported by evidence from Image File.

The following year

83. The decision under appeal related to FTP's claim for the accounting period ended 30 June 2018. However, the Project ended in mid-2019 (see §19.), and so extended into the whole of the following

accounting period. Mr Wells confirmed that FTP had made a further claim for that accounting period on essentially the same basis.

84. Ms Gulwell and Mr Lewis said that HMRC were considering whether to make a discovery assessment for that accounting period. This is not a matter we have any jurisdiction to consider, and we limit ourselves to noting that HMRC would have to meet the burden of showing that FTP had acted carelessly or deliberately in order to satisfy the time limit provisions in TMA ss 34 and 36,

RIGHT TO APPLY FOR PERMISSION TO APPEAL

85. This document contains full findings of fact and reasons for the decision. Any party dissatisfied with this decision has a right to apply for permission to appeal against it pursuant to Rule 39 of the Tribunal Procedure (First-tier Tribunal) (Tax Chamber) Rules 2009. The application must be received by this Tribunal not later than 56 days after this decision is sent to that party. The parties are referred to "Guidance to accompany a Decision from the First-tier Tribunal (Tax Chamber)" which accompanies and forms part of this decision notice.

**ANNE REDSTON
TRIBUNAL JUDGE**

RELEASE DATE: 25th APRIL 2024

THE BEIS GUIDELINES

THE DEFINITION OF R&D

3. R&D for tax purposes takes place when a project seeks to achieve an advance in science or technology.
4. The activities which directly contribute to achieving this advance in science or technology through the resolution of scientific or technological uncertainty are R&D.
5. Certain qualifying indirect activities related to the project are also R&D. Activities other than qualifying indirect activities which do not directly contribute to the resolution of the project's scientific or technological uncertainty are not R&D.

ADVANCE IN SCIENCE OR TECHNOLOGY

6. An advance in science or technology means an advance in overall knowledge or capability in a field of science or technology (not a company's own state of knowledge or capability alone). This includes the adaptation of knowledge or capability from another field of science or technology in order to make such an advance where this adaptation was not readily deducible.
7. An advance in science or technology may have tangible consequences (such as a new or more efficient cleaning product, or a process which generates less waste) or more intangible outcomes (new knowledge or cost improvements, for example).
8. A process, material, device, product, service or source of knowledge does not become an advance in science or technology simply because science or technology is used in its creation. Work which uses science or technology but which does not advance scientific or technological capability as a whole is not an advance in science or technology.
9. A project which seeks to, for example,
 - (a) extend overall knowledge or capability in a field of science or technology; or
 - (b) create a process, material, device, product or service which incorporates or represents an increase in overall knowledge or capability in a field of science or technology; or
 - (c) make an appreciable improvement to an existing process, material, device, product or service through scientific or technological changes; or
 - (d) use science or technology to duplicate the effect of an existing process, material, device, product or service in a new or appreciably improved way (e.g. a product which has exactly the same performance characteristics as existing models, but is built in a fundamentally different manner)

will therefore be R&D.

10. Even if the advance in science or technology sought by a project is not achieved or not fully realised, R&D still takes place.

11. If a particular advance in science or technology has already been made or attempted but details are not readily available (for example, if it is a trade secret), work to achieve such an advance can still be an advance in science or technology.

12. However, the routine analysis, copying or adaptation of an existing product, process, service or material, will not be an advance in science or technology.

SCIENTIFIC OR TECHNOLOGICAL UNCERTAINTY

13. Scientific or technological uncertainty exists when knowledge of whether something is scientifically possible or technologically feasible, or how to achieve it in practice, is not readily available or deducible by a competent professional working in the field. This includes system uncertainty. Scientific or technological uncertainty will often arise from turning something that has already been established as scientifically feasible into a cost-effective, reliable and reproducible process, material, device, product or service.

14. Uncertainties that can readily be resolved by a competent professional working in the field are not scientific or technological uncertainties. Similarly, improvements, optimisations and fine-tuning which do not materially affect the underlying science or technology do not constitute work to resolve scientific or technological uncertainty.

OTHER DEFINITIONS

Science

15. Science is the systematic study of the nature and behaviour of the physical and material universe. Work in the arts, humanities and social sciences, including economics, is not science for the purpose of these Guidelines. Mathematical techniques are frequently used in science, but mathematical advances in and of themselves are not science unless they are advances in representing the nature and behaviour of the physical and material universe.

16. These Guidelines apply equally to work in any branch or field of science.

Technology

17. Technology is the practical application of scientific principles and knowledge, where 'scientific' is based on the definition of science above.

18. These Guidelines apply equally to work in any branch or field of technology.

Project

19. A project consists of a number of activities conducted to a method or plan in order to achieve an advance in science or technology. It is important to get the boundaries of the project correct. It should encompass all the activities which collectively serve to resolve the scientific or technological uncertainty associated with achieving the advance, so it could include a number of different sub-projects. A project may itself be part of a larger commercial project, but that does not make the parts of the commercial project that do not address scientific or technological uncertainty into R&D.

Overall knowledge or capability

20. Overall knowledge or capability in a field of science or technology means the knowledge or capability in the field which is publicly available or is readily deducible from the publicly available knowledge or capability by a competent professional working in the field. Work which seeks an advance relative to this overall knowledge or capability is R&D.

21. Overall knowledge or capability in a field of science or technology can still be advanced (and hence R&D can still be done) in situations where

- several companies are working at the cutting edge in the same field, and are doing similar work independently; or
- work has already been done but this is not known in general because it is a trade secret, and another company repeats the work; or
- it is known that a particular advance in science or technology has been achieved, but the details of how are not readily available.

22. However, the routine analysis, copying or adaptation of an existing process, material, device, product or service will not advance overall knowledge or capability, even though it may be completely new to the company or the company's trade.

Appreciable improvement

23. Appreciable improvement means to change or adapt the scientific or technological characteristics of something to the point where it is 'better' than the original. The improvement should be more than a minor or routine upgrading, and should represent something that would generally be acknowledged by a competent professional working in the field as a genuine and non-trivial improvement. Improvements arising from the adaptation of knowledge or capability from another field of science or technology are appreciable improvements if they would generally be acknowledged by a competent professional working in the field as a genuine and non-trivial improvement.

24. Improvements which arise from taking existing science or technology and deploying it in a new context (e.g. a different trade) with only minor or routine changes are not appreciable improvements. A process, material, device, product or service will not be appreciably improved if it simply brings a company into line with overall knowledge or capability in science or technology, even though it may be completely new to the company or the company's trade.

25. The question of what scale of advance would constitute an appreciable improvement will differ between fields of science and technology and will depend on what a competent professional working in the field would regard as a genuine and non-trivial improvement.

Directly contribute

26. To directly contribute to achieving an advance in science or technology, an activity (or several activities in combination) must attempt to resolve an element of the scientific or technological uncertainty associated with achieving the advance.

27. Activities which directly contribute to R&D include:

- (a) activities to create or adapt software, materials or equipment needed to resolve the scientific or technological uncertainty, provided that the software, material or equipment is created or adapted solely for use in R&D;
- (b) scientific or technological planning activities; and
- (c) scientific or technological design, testing and analysis undertaken to resolve the scientific or technological uncertainty.

28. Activities which do not directly contribute to the resolution of scientific or technological uncertainty include:

- (a) the range of commercial and financial steps necessary for innovation and for the successful development and marketing of a new or appreciably improved process, material, device, product or service;
- (b) work to develop non-scientific or non-technological aspects of a new or appreciably improved process, material, device, product or service;
- (c) the production and distribution of goods and services;
- (d) administration and other supporting services;
- (e) general support services (such as transportation, storage, cleaning, repair, maintenance and security); and
- (f) qualifying indirect activities.

System uncertainty

29. System uncertainty is scientific or technological uncertainty that results from the complexity of a system rather than uncertainty about how its individual components behave. For example, in electronic devices, the characteristics of individual components or chips are fixed, but there can still be uncertainty about the best way to combine those components to achieve an overall effect. However, assembling a number of components (or software sub-programs) to an established pattern, or following routine methods for doing so, involves little or no scientific or technological uncertainty.

30. Similarly, work on combining standard technologies, devices, and/or processes can involve scientific or technological uncertainty even if the principles for their integration are well known. There will be scientific or technological uncertainty if a competent professional working in the field cannot readily deduce how the separate components or sub-systems should be combined to have the intended function.

Qualifying indirect activity

31. These are activities which form part of a project but do not directly contribute to the resolution of the scientific or technological uncertainty. They are:

- (a) scientific and technical information services, insofar as they are conducted for the purpose of R&D support (such as the preparation of the original report of R&D findings);
- (b) indirect supporting activities such as maintenance, security, administration and clerical activities, and finance and personnel activities, insofar as undertaken for R&D;
- (c) ancillary activities essential to the undertaking of R&D (e.g. taking on and paying staff, leasing laboratories and maintaining research and development equipment including computers used for R&D purpose;

- (d) training required to directly support an R&D project;
- (e) research by students and researchers carried out at universities;
- (f) research (including related data collection) to devise new scientific or technological testing, survey, or sampling methods, where this research is not R&D in its own right; and
- (g) feasibility studies to inform the strategic direction of a specific R&D activity.

32. Activities not described in paragraph 31 are not qualifying indirect activities.

Commentary on particular questions which arise

Start and end of R&D

33. R&D begins when work to resolve the scientific or technological uncertainty starts, and ends when that uncertainty is resolved or work to resolve it ceases. This means that work to identify the requirements for the process, material, device, product or service, where no scientific or technological questions are at issue, is not R&D.

34. R&D ends when knowledge is codified in a form usable by a competent professional working in the field, or when a prototype or pilot plant with all the functional characteristics of the final process, material, device, product or service is produced.

35. Although the R&D for a process, material, device, product or service may have ended, new problems which involve scientific or technological uncertainty may emerge after it has been turned over to production or put into use. The resolution of these problems may require new R&D to be carried out. But there is a distinction to be drawn between such problems and routine fault fixing.

Planning as part of R&D

36. Scientific or technological planning activities associated with a project directly contribute to resolving the scientific or technological uncertainty associated with the project, and are therefore R&D. These include defining scientific or technological objectives, assessing scientific or technological feasibility, identifying particular scientific or technological uncertainties, estimating development time, schedule, and resources of the R&D, and high-level outlining of the scientific or technical work, as well as the detailed planning and management of the work.

37. Elements of a company's planning activity relating to a project but not directly contributing to the resolution of scientific or technological uncertainty, such as identifying or researching market niches in which R&D might benefit a company, or examination of a project's financial, marketing, and legal aspects, fall outside the category of scientific or technological planning, and are therefore not R&D.