FEDERAL COURT OF AUSTRALIA

H2O Exchange Pty Ltd v Innovation and Science Australia [2021] FCA 11

Appeal from:	*H2O Exchange Pty Ltd and Innovation and Science Australia* [2019] AATA 4195
File number:	NSD 1847 of 2019
Judgment of:	**STEWART J**
Date of judgment:	22 January 2021
Catchwords:	**TAXATION** – R&D tax incentive scheme – appeal from decision of the Administrative Appeals Tribunal which affirmed a finding that certain activities were not core R&D activities or supporting R&D activities within their meaning under the *Income Tax Assessment Act 1997* (Cth) – whether irrational and illogical to accept expert evidence – whether expert had the relevant expertise – whether the Tribunal denied the appellant natural justice by deciding that the existence of artificial intelligence research was a relevant issue in the proceeding without advising the parties – whether denial of natural justice for the Tribunal to proceed with the review where a purported variation application had been made – appeal dismissed
Legislation:	*Administrative Appeals Tribunal Act 1975* (Cth) s 44(1) *Income Tax Assessment Act 1997* (Cth) ss 355-5, 355-20, 355-25, 355-30 *Industry Research and Development Act 1986* (Cth) ss 4(1), 6, 27A, 27D, 27F, 27J, 27M, 30D, 30E, 32A *Industry Research and Development Decision-making Principles 2011* (Cth)
Cases cited:	*Stoltenberg v Bolton; Loder v Bolton* [2020] NSWCA 45; 380 ALR 145 *Tame v NSW* [2002] HCA 35; 211 CLR 317
Division:	General Division
Registry:	New South Wales
National Practice Area:	Taxation
Number of paragraphs:	46

Date of hearing:	18 December 2020
Counsel for the Appellant:	Dr M Wolff
Solicitor for the Appellant:	Aqualaw
Counsel for the Respondent:	S Free SC and C Trahanas
Solicitor for the Respondent:	HWL Ebsworth

ORDERS

NSD 1847 of 2019

BETWEEN:	**H2O EXCHANGE PTY LTD** Appellant
AND:	**INNOVATION AND SCIENCE AUSTRALIA** Respondent

ORDER MADE BY: **STEWART J**

DATE OF ORDER: **22 JANUARY 2021**

THE COURT ORDERS THAT:

1. The appeal is dismissed.
2. The appellant pay the respondent's costs.

Note: Entry of orders is dealt with in Rule 39.32 of the *Federal Court Rules 2011*.

REASONS FOR JUDGMENT

STEWART J:

Introduction

1 This is an appeal from the decision of the Administrative Appeals Tribunal on 14 October 2019 reported as *H2O Exchange Pty Ltd and Innovation and Science Australia* [2019] AATA 4195. Such an appeal is provided for by s 44(1) of the *Administrative Appeals Tribunal Act 1975* (Cth). By that section, the appeal is confined to "a question of law".

2 The decision of the Tribunal affirmed a decision of a delegate of the respondent on 24 April 2017 that certain activities in which the appellant engaged in the 2013-14 and 2014-15 income years were not "core R&D activities" within the meaning of s 355-25 of the *Income Tax Assessment Act 1997* (Cth) (**ITAA97**), and that they were also not "supporting R&D activities" within the meaning of s 355-30 of the ITAA97. The decision of the delegate was an internal review decision under s 30D of the *Industry Research and Development Act 1986* (Cth) (**IRD Act**) of which the appellant then sought external review of under s 30E of the IRD Act.

3 The respondent is established by s 6 of the IRD Act and, by the definition in s 4(1), is referred to in the IRD Act as "the Board".

4 The Commonwealth's "R&D tax incentive" scheme established under Div 355 of the ITAA97 and the IRD Act provides tax offsets to "R&D entities" in relation to "R&D activities" registered under s 27A of the IRD Act.

5 The appellant's project set out to establish an online water exchange that would allow the sale and purchase of water rights in the Murray-Darling Basin within New South Wales, Victoria and South Australia. Following applications by the appellant, the respondent registered two activities related to the project for the 2013-14 and 2014-2015 income years under s 27A of the IRD Act. The registration applications listed the two activities as (a) activity 1.1: "development of core trading platform and data base, CRM and various APIs" and (b) activity 1.2: "Integration of matrix rules". CRM stands for customer relationship management.

6 The elements of activity 1.1 are:

(1) a web-based trading platform, which is "[a] website or application that is accessible via the internet that a customer or broker can directly access, and list buy or sell orders for water entitlements and water allocation";

(2) a membership database and CRM, which is "[a] record of client information including details of their respective water assets";

(3) a binding legal framework, which involves "[a] structured system whereby the placing of buy and sell orders incorporates pre-acceptance of a binding legal agreement or accepts that a binding contract shall be formed when a buy and sell order are matched";

(4) real-time settlement and payment of fees, which is a "system designed to incorporate automatic collection of payment from buyers, and subsequently payment to sellers and other involved parties (such as the approving authority)"; and

(5) complete automation of the conveyancing and registration process, which involves "the conversion of the then current system … of receiving, processing, approving of transfers and updating of respective title registries and water accounting systems by the respective water authorities into an instantaneous, computer-based system".

7 The elements of activity 1.2 are:

(1) the initial creation and incorporation of a systematic rules matrix relating to trading of water rights in NSW, Victoria and South Australia; and

(2) the ongoing monitoring of changes to the rules and automatic updating of the rules matrix.

8 On 20 May 2016, the respondent determined under s 27J of the IRD Act that activities 1.1 and 1.2 were not "core R&D activities". On 3 June 2016, the appellant applied for internal review of the s 27J decision. As indicated, on 24 April 2017 following an internal review the delegate of the respondent confirmed that activities 1.1 and 1.2 were not "core R&D activities" and also found that they were not "supporting R&D activities".

The statutory scheme

9 Section 355-20 of the ITAA97 defines "R&D activities" as "core R&D activities" or "supporting R&D activities".

10 Section 355-25(1) defines "core R&D activities" as follows:

Core R&D activities are experimental activities:

(a) whose outcome cannot be known or determined in advance on the basis of current knowledge, information or experience, but can only be determined by applying a systematic progression of work that:

(i) is based on principles of established science; and

(ii) proceeds from hypothesis to experiment, observation and evaluation, and leads to logical conclusions; and

(b) that are conducted for the purpose of generating new knowledge (including new knowledge in the form of new or improved materials, products, devices, processes or services).

11 Section 355-25(2) sets out various exceptions, which are not relevant to the appeal.

12 Section 355-30 defines "supporting R&D activities" as "activities directly related to core R&D activities".

13 The objects of Div 355 of the ITAA97, set out in s 355-5, are relevant to the construction of these provisions.

14 An R&D entity may apply to the respondent to register activities as core R&D activities or supporting R&D activities for an income year: IRD Act, ss 27A and 27D. The respondent then decides whether to register those activities: IRD Act, s 27A.

15 Registration of an R&D entity's activities for an income year under s 27A does not automatically render the registered activities "core R&D activities" or "supporting R&D activities" within the meaning of the ITAA97. Even after a s 27A registration, the respondent may examine the registration and make findings about whether or not a registered activity is "a core R&D activity conducted during the registration year" or "a supporting R&D activity conducted during the registration year": IRD Act, ss 27F and 27J.

The Tribunal's decision

16 The principal issue before the Tribunal was whether activities 1.1 and 1.2 were "core R&D activities" under s 355-25(1) of the ITAA97: Decision [17]. The Tribunal found that they were not "core R&D activities" because they did not meet the first limb of s 355-25(1) – that is, they were not experimental activities whose outcome could not be known or determined in advance on the basis of current knowledge, information or experience, but could only be determined by applying a systematic progression of work that (i) is based on principles of

established science and (ii) proceeds from hypothesis to experiment, observation and evaluation, and leads to logical conclusions.

17 As to activity 1.1, the Tribunal found that the outcome of the activity could be known or determined in advance on the basis of current knowledge, information or experience. The Tribunal's reasons in support of this finding were that:

(1) The outcome of parts of activity 1.1 – namely, the creation of a web-based trading platform, membership database and CRM, binding legal framework, and real-time settlement and payment of fees – was known to be achievable based on current knowledge, information and experience. These parts of activity 1.1 were "simple and easily accomplished by a competent professional" or involved "choosing between a suite of known software tools and incorporating them into the platform": Decision [47]-[48], [52], [60] and [63]. Although building the online trading platform could involve complicated work, this did not mean that there was an uncertainty of outcome: Decision [45] and [48].

(2) The outcome of the other part of activity 1.1 – complete automation of the conveyancing and registration process – was known not to be achievable because NSW and South Australia did not offer online registration of transfers. The outcome of this part of activity 1.1 depended on governments changing their procedures, which is not the type of uncertainty of outcome able to be determined only by applying a systematic progression of work as contemplated by the language of s 355-25(1)(a): Decision [42]-[44], [52], [61] and [63].

18 As to activity 1.2, the Tribunal found that there was no evidence on which it could be satisfied of the matters arising under s 355-25(1)(a): Decision [64]-[66] and [68]. Activity 1.2 "may have been achievable using AI [i.e., artificial intelligence] software but probably not otherwise": Decision [64]. However, the evidence did not show that, during 2013/2014 and/or 2014/2015, the appellant intended "to have its system incorporate changes in water trading conditions by using AI software" or that the appellant "embarked on experimentation for that purpose which experimentation had an uncertain outcome": Decision [65(b)] and [66], but see also [37], [41] and [64].

The grounds of appeal

19 The notice of appeal improbably identified 38 independent errors of law said to have been made by the Tribunal in its 69-paragraph decision. The respondent rightly criticised that approach, drawing attention to the adoption by McHugh J of the words of an American judge that when he sees "an appellant's brief containing seven to ten points or more, a presumption arises that there is no merit to *any* of them": *Tame v NSW* [2002] HCA 35; 211 CLR 317 at [70], quoting Aldisert R, *Opinion Writing* (West Publishing Co, 1990) p 89. See also *Stoltenberg v Bolton; Loder v Bolton* [2020] NSWCA 45; 380 ALR 145 at [52] per Gleeson JA. Another way of putting the point is that experience shows that the merits of an appeal are generally inversely proportionate to the number of appeal points that are taken.

20 At the hearing of the appeal, counsel for the appellant helpfully, and appropriately, reduced the grounds of appeal down to three which he put as follows:

(1) The Tribunal's decision was irrational and illogical in accepting Mr Harding's evidence.

(2) It was a denial of natural justice to make the presence or absence of research involving AI a relevant issue in the proceeding without advising the parties that that approach would be taken and giving them an opportunity to deal with it.

(3) It was a denial of natural justice for the Tribunal to proceed with the review when it became evident during the review proceeding that the appellant had filed an application to vary the relevant registration definitions and that the respondent had failed to deal with the variation request.

Ground 1: the evidence of Mr Harding

21 The basis for the appellant's criticism of the Tribunal's acceptance of the evidence of Mr Harding was, so it was submitted, that he was not an expert in software development.

22 Before the Tribunal, each party adduced the evidence of an expert. Mr Harding was the respondent's expert and Dr Fearn was the appellant's expert. The appellant challenged Mr Harding's expertise in relation to software development but did not otherwise cross-examine him on the contents of his report.

23 The appellant drew attention to the cross-examination of Mr Harding where he accepted that he did not study software design, he had never been hired as a software engineer and that he

had never written a line of code in support of its contention that he did not have the requisite expertise to address the questions raised by the definition of "core R&D activities".

24 The Tribunal described Mr Harding as having experience in the trading of water rights and in collaborating with others in the design of software and the development of software platforms: Decision [8] and [50]. Mr Harding's report identifies his experience as including having been appointed in 2006 when employed by the Uniting Church Investment Fund to assist with the design and testing of a replacement CRM program which included contributing to the design of the database component of the system and becoming familiar with database structure and design.

25 In 2009, Mr Harding commenced work at Global Commodities Ltd where he was responsible for the administration of client and assets data using a proprietary software platform. He worked closely with the Research Officer to design a software platform capable of analysing and interpreting multiple data sources, then applying pre-determined rules in a systematic manner to generate output which was then observed and evaluated to prove or disprove their hypotheses. Beginning in 2011, Mr Harding was responsible for design and project management for the development of a later version of the software.

26 On leaving Global Commodities in 2013, Mr Harding began developing his own software platform using MySQL (an open-source version of Microsoft SQL) as the database platform, Microsoft Excel for mathematical calculation and Microsoft PowerShell to extract data from various websites, interpret and convert the data into a predetermined format, and then update the data in the database.

27 In July 2014, Mr Harding commenced work at Waterfind Pty Ltd as a conveyancing officer and by December 2014 was promoted to manage the Market Services arm of the business which covered the conveyancing and policy teams. His responsibilities required a comprehensive understanding of the water market regulations and conveyancing rules across all states, as well as knowledge of trading behaviour and market clearing systems as the Waterfind platform would automatically match compatible buy and sell orders, creating a binding legal contract, and issuing transaction forms via email. He was required to conduct due diligence on all trades to ensure that they complied with the relevant guidelines imposed by the state water authorities as well as the National Murray-Darling Basin Authority. In

2016, he was also assigned to perform User Acceptance Testing (UAT) on several new features of the Waterfind platform.

28 Although the cross-examination of Mr Harding established that he had a Bachelor of Finance and had worked in finance and investments, it did not in any way shake his experience relevant to software development as outlined in his report. That experience provided a proper basis for Mr Harding to have specialised knowledge on which the opinions expressed by him with regard to software development were based. The fact that he had not formally studied software design, had never been hired as a software engineer and had never written a line of code does not detract from that.

29 In the circumstances, the Tribunal was entirely justified in accepting Mr Harding's expertise on the questions on which he expressed an opinion. There is no basis upon which the Tribunal's reliance on the evidence of Mr Harding, even if questionable or in error, rises to the level of illogicality, irrationality or unreasonableness so as to amount to error of law. Ground 1 accordingly fails.

Ground 2: denial of natural justice with regard to AI

30 The appellant pointed to a number of references in the decision of the Tribunal to AI and in particular drew attention to the Tribunal's conclusion (at [68]) with regard to activity 1.2:

> No information has been provided about what experimental activities using AI software were embarked upon, whether those activities were based upon the principles of established science, whether a systematic progression of work was involved, and what hypotheses were considered.

31 The appellant submitted that no notice had been given that the presence or absence of research involving AI would be a relevant issue and that it was therefore denied the opportunity to present any evidence or make submissions on that issue. It submitted that the only evidence in relation to AI is that referred to by the Tribunal (at [37]) being the evidence of Mr Daley, the appellant's CEO, who said that he met with officers of the respondent in 2015 and stated to them that the appellant was experimenting with AI to allow instantaneous rule interpretation.

32 The evidence referred to was in a "further" witness statement of Mr Daley in which he stated that he was in a meeting with officers of the respondent in Canberra in 2015 and the following occurred:

> During that meeting, we advised them that the Applicant was experimenting with AI to allow instantaneous rule interpretation.
>
> To this day, the Applicant continues to utilise and research and develop AI.

33 One of the aspects of activity 1.2 was the ongoing monitoring of changes to the rules and automatic updating of the rules matrix (see [7] above). In relation to that aspect, Mr Harding had said in his report that announcements of rule changes by states to the public did not have a consistent structure or format and they did not always contain numeric data, so a system capable of performing the interpretation of the rules could not simply be programmed to look for specific words or phrases "but would need to apply 'human-like' reasoning to determine the context and meaning of the announcement."

34 Specifically in response to what Mr Harding had said, Dr Fearn stated in his report that the use of Natural Language Programs (NLP) was a means of analysing documents of this type (i.e., the announcements of rule changes). Dr Fearn was asked about NLP when he was being cross-examined. He explained that it is the ability to take a document and derive information from it and described it as an "AI system". Dr Fearn later said that AI is perhaps the only way of achieving the second aspect of activity 1.2.

35 From this it is apparent that it was the appellant, through the evidence of Mr Daley, that introduced the concept of AI as a means of achieving the second identified element of activity 1.2. Both the experts gave evidence with regard to the difficulties of achieving that element, and both referred to AI as a means of doing so. It was the appellant's expert, Dr Fearn, who said that AI would likely be required to achieve the second element. The Tribunal drew on this evidence in reaching its conclusion.

36 In the circumstances, it is not apparent that the appellant was in any way taken by surprise by the Tribunal's reference to AI or that there was any unfairness with regard to the Tribunal's references to AI.

37 But in any event, even if there was some surprise or unfairness it could not have been material to the outcome of the decision. The Tribunal concluded that on the evidence it could not be satisfied that the appellant intended, in either or both of the income years at issue, to have its system incorporate changes in water trading conditions by using AI software and in fact embarked on experimentation for that purpose which experimentation had an uncertain outcome. It was only if the Tribunal had been able to make that conclusion that there could have been a favourable decision to the appellant in relation to activity 1.2. The Tribunal then

went on to say that even if it had been satisfied with regard to that conclusion the ultimate decision would not have been favourable because "[n]o information has been provided about what experimental activities using AI software were embarked upon, whether those activities were based upon the principles of established science, whether a systematic progression of work was involved, and what hypotheses were considered." It is the latter quoted conclusion which forms the basis to the appellant's breach of procedural fairness claim, but that conclusion is alternative, or subsidiary, to the conclusion on which the ultimate decision actually turned.

38 In the circumstances, there is no substance to ground 2.

Ground 3: the application to vary the registration definitions

39 The appellant submitted that by letter to the respondent dated 21 March 2016 it had sought to vary its registrations but that the respondent had not treated the letter as an application for a variation. It submitted that during the course of the hearing before the Tribunal it sought an adjournment in order that the application for a variation could be considered, or that it could obtain an internal review by the respondent of its failure to approve the variation, but that it was met by the objection, which it accepts as valid, that an application cannot be varied while it is under review by the Tribunal. It says that it was denied procedural fairness by the Tribunal by the Tribunal's refusal of an adjournment so that it could obtain an internal review by the respondent of its failure to approve the variation that had been sought in the letter.

40 There are a number of difficulties with this ground. First, it is not at all clear that the letter of 21 March 2016 was an application for a variation. The letter is stated to be in response to a letter from the respondent dated 25 January 2016 in which the respondent notified the appellant that the respondent was commencing an examination of the appellant's R&D tax incentive registration in accordance with s 27F of the IRD Act. The letter invited the appellant to provide further information or documentary evidence. The appellant's letter of 21 March 2016 was on the face of it a response to that invitation and was expressed to set out "some more relevant details of our engagement with technology providers, Veritec, the company that helped develop our water trading platform". The letter ends with the statement that "[w]e trust this information better describes the activities undertaken." There is nothing in the letter suggesting that it is any form of application for a variation of the registrations.

41 Secondly, it was only during the hearing before the Tribunal that the appellant for the first time sought to characterise the 21 March 2016 letter as an application to vary the registrations. If indeed the letter had been intended to be an application for a variation, the appellant had had the opportunity to pursue that at an earlier time.

42 Thirdly, as the appellant ultimately accepted, once the decision of the respondent was under external review in the Tribunal it was too late. That was the reason given by the Tribunal (at [33]) to refuse the adjournment.

43 The respondent may vary a s 27A registration if the R&D entity applies for the variation, the variation is consistent with the respondent's findings under Pt III of the IRD Act (such as a finding under s 27J) and making the variation is justified in accordance with the decision-making principles: IRD Act, s 27M. The "decision-making principles" are principles, made by the Minister for Innovation, Industry, Science and Research by legislative instrument, that the respondent must comply with when making certain decisions, including when deciding whether a variation under s 27M is justified: IRD Act, s 32A(c).

44 Part 5 of the *Industry Research and Development Decision-making* ***Principles*** *2011* (Cth) contains the decision-making principles that apply to decisions made under s 27M of the IRD Act. These include that, except for minor amendments, the respondent must not vary a s 27A registration while a reviewable decision is the subject of an internal or external review under the IRD Act: Principles, s 5.2(3)(b)-(c).

45 In the circumstances, no relevant procedural unfairness on the part of the Tribunal in its process is even adequately identified never mind established. Ground 3 must accordingly fail.

Conclusion

46 For the above reasons, the appeal must be dismissed. There is no apparent reason why the costs should not follow the result.

I certify that the preceding forty-six (46) numbered paragraphs are a true copy of the Reasons for Judgment of the Honourable Justice Stewart.

Associate:

Dated: 22 January 2021